



Full wwPDB EM Validation Report ⓘ

Jun 18, 2025 – 02:56 PM JST

PDB ID : 9JZ0 / pdb_00009jz0
EMDB ID : EMD-61911
Title : portal-tail complex of DNA-ejected T7
Authors : Liu, H.R.; Chen, W.Y.
Deposited on : 2024-10-13
Resolution : 3.50 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : **FAILED**
MolProbity : 4-5-2 with Phenix2.0rc1
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : **FAILED**
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.44

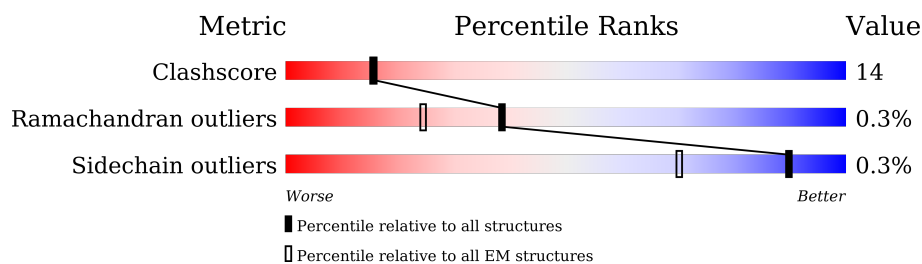
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.50 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$.

Mol	Chain	Length	Quality of chain
1	0	196	48% 13% 39%
1	1	196	46% 14% 39%
1	Y	196	41% 19% 39%
1	Z	196	45% 15% 39%
1	y	196	48% 12% 39%
1	z	196	46% 14% 39%
2	2	88	25% 10% 65%
2	3	88	26% 9% 65%
2	4	88	25% 10% 65%














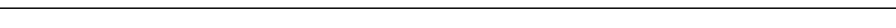











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Mol	Chain	Length	Quality of chain
2	5	88	
2	6	88	
2	7	88	
2	8	88	
2	9	88	
2	AA	88	
2	AB	88	
2	AC	88	
2	AD	88	
3	A	536	
3	B	536	
3	C	536	
3	D	536	
3	E	536	
3	F	536	
3	G	536	
3	H	536	
3	I	536	
3	J	536	
3	K	536	
3	L	536	
4	M	196	
4	N	196	
4	O	196	
4	P	196	

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Mol	Chain	Length	Quality of chain
4	Q	196	 74%26%
4	R	196	 78%21%.
4	S	196	 76%24%
4	T	196	 73%26%.
4	U	196	 72%28%
4	V	196	 72%27%.
4	W	196	 76%24%
4	X	196	 76%23%.
5	a	553	 14%7%79%
5	b	553	 12%9%80%
5	c	553	 12%8%80%
5	d	553	 14%7%79%
5	e	553	 12%8%80%
5	f	553	 12%9%80%
5	g	553	 15%6%79%
5	h	553	 12%8%80%
5	i	553	 14%7%80%
5	j	553	 15%6%79%
5	k	553	 11%9%.80%
5	l	553	 12%8%80%
5	m	553	 15%6%79%
5	n	553	 11%9%80%
5	o	553	 13%8%80%
5	p	553	 15%6%79%
5	q	553	 11%9%80%

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Mol	Chain	Length	Quality of chain
5	r	553	<div><div></div><div></div><div></div><div>12%</div><div>8%</div><div>80%</div></div>
6	s	794	<div><div></div><div></div><div></div><div>57%</div><div>42%</div><div>.</div></div>
6	t	794	<div><div></div><div></div><div></div><div>56%</div><div>43%</div><div>..</div></div>
6	u	794	<div><div></div><div></div><div></div><div>57%</div><div>42%</div><div>..</div></div>
6	v	794	<div><div></div><div></div><div></div><div>56%</div><div>43%</div><div>...</div></div>
6	w	794	<div><div></div><div></div><div></div><div>57%</div><div>41%</div><div>..</div></div>
6	x	794	<div><div></div><div></div><div></div><div>56%</div><div>42%</div><div>...</div></div>

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 122376 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 Internal virion protein gp14.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	0	119	Total	C	N	O	S	0	0
			920	556	172	185	7		
1	1	119	Total	C	N	O	S	0	0
			920	556	172	185	7		
1	Y	119	Total	C	N	O	S	0	0
			920	556	172	185	7		
1	Z	119	Total	C	N	O	S	0	0
			920	556	172	185	7		
1	y	119	Total	C	N	O	S	0	0
			920	556	172	185	7		
1	z	119	Total	C	N	O	S	0	0
			920	556	172	185	7		

- Molecule 2 is a protein called Protein 6.7.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	2	31	Total	C	N	O	S	0	0
			231	139	38	53	1		
2	3	31	Total	C	N	O	S	0	0
			231	139	38	53	1		
2	4	31	Total	C	N	O	S	0	0
			231	139	38	53	1		
2	5	31	Total	C	N	O	S	0	0
			231	139	38	53	1		
2	6	31	Total	C	N	O	S	0	0
			231	139	38	53	1		
2	7	31	Total	C	N	O	S	0	0
			231	139	38	53	1		
2	8	49	Total	C	N	O	S	0	0
			368	219	64	84	1		
2	9	49	Total	C	N	O	S	0	0
			368	219	64	84	1		
2	AA	49	Total	C	N	O	S	0	0
			368	219	64	84	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	AB	49	Total	C	N	O	S	0	0
			368	219	64	84	1		
2	AC	49	Total	C	N	O	S	0	0
			368	219	64	84	1		
2	AD	49	Total	C	N	O	S	0	0
			368	219	64	84	1		

- Molecule 3 is a protein called Portal protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	A	429	Total	C	N	O	S	0	0
			3363	2120	562	667	14		
3	B	431	Total	C	N	O	S	0	0
			3378	2128	567	669	14		
3	C	429	Total	C	N	O	S	0	0
			3363	2120	562	667	14		
3	D	431	Total	C	N	O	S	0	0
			3378	2128	567	669	14		
3	E	429	Total	C	N	O	S	0	0
			3363	2120	562	667	14		
3	F	431	Total	C	N	O	S	0	0
			3378	2128	567	669	14		
3	G	429	Total	C	N	O	S	0	0
			3363	2120	562	667	14		
3	H	431	Total	C	N	O	S	0	0
			3378	2128	567	669	14		
3	I	429	Total	C	N	O	S	0	0
			3363	2120	562	667	14		
3	J	431	Total	C	N	O	S	0	0
			3378	2128	567	669	14		
3	K	429	Total	C	N	O	S	0	0
			3363	2120	562	667	14		
3	L	431	Total	C	N	O	S	0	0
			3378	2128	567	669	14		

- Molecule 4 is a protein called Tail tubular protein gp11.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	M	196	Total	C	N	O	S	0	0
			1565	971	267	318	9		
4	N	194	Total	C	N	O	S	0	0
			1546	960	262	316	8		

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Mol	Chain	Residues	Atoms					AltConf	Trace
4	O	196	Total	C	N	O	S	0	0
			1565	971	267	318	9		
4	P	194	Total	C	N	O	S	0	0
			1546	960	262	316	8		
4	Q	196	Total	C	N	O	S	0	0
			1565	971	267	318	9		
4	R	194	Total	C	N	O	S	0	0
			1546	960	262	316	8		
4	S	196	Total	C	N	O	S	0	0
			1565	971	267	318	9		
4	T	194	Total	C	N	O	S	0	0
			1546	960	262	316	8		
4	U	196	Total	C	N	O	S	0	0
			1565	971	267	318	9		
4	V	194	Total	C	N	O	S	0	0
			1546	960	262	316	8		
4	W	196	Total	C	N	O	S	0	0
			1565	971	267	318	9		
4	X	194	Total	C	N	O	S	0	0
			1546	960	262	316	8		

- Molecule 5 is a protein called Tail fiber protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	a	115	Total	C	N	O	S	0	0
			922	584	160	177	1		
5	b	113	Total	C	N	O	S	0	0
			907	575	157	174	1		
5	c	113	Total	C	N	O	S	0	0
			907	575	157	174	1		
5	d	115	Total	C	N	O	S	0	0
			922	584	160	177	1		
5	e	113	Total	C	N	O	S	0	0
			907	575	157	174	1		
5	f	113	Total	C	N	O	S	0	0
			907	575	157	174	1		
5	g	115	Total	C	N	O	S	0	0
			922	584	160	177	1		
5	h	113	Total	C	N	O	S	0	0
			907	575	157	174	1		
5	i	113	Total	C	N	O	S	0	0
			907	575	157	174	1		

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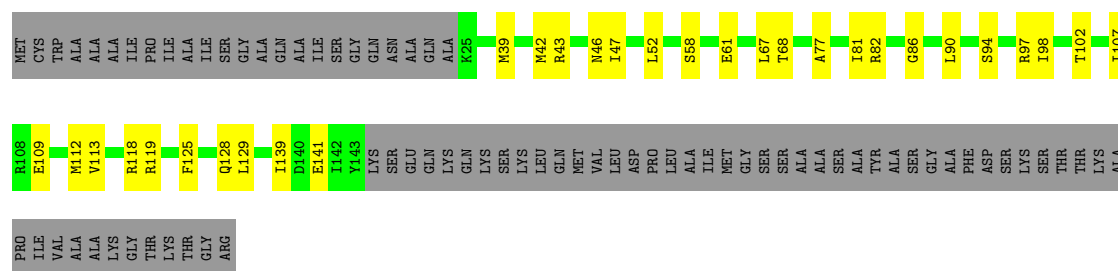
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Mol	Chain	Residues	Atoms					AltConf	Trace
5	j	115	Total	C	N	O	S	0	0
			922	584	160	177	1		
5	k	113	Total	C	N	O	S	0	0
			907	575	157	174	1		
5	l	113	Total	C	N	O	S	0	0
			907	575	157	174	1		
5	m	115	Total	C	N	O	S	0	0
			922	584	160	177	1		
5	n	113	Total	C	N	O	S	0	0
			907	575	157	174	1		
5	o	113	Total	C	N	O	S	0	0
			907	575	157	174	1		
5	p	115	Total	C	N	O	S	0	0
			922	584	160	177	1		
5	q	113	Total	C	N	O	S	0	0
			907	575	157	174	1		
5	r	113	Total	C	N	O	S	0	0
			907	575	157	174	1		

- Molecule 6 is a protein called Tail tubular protein gp12.

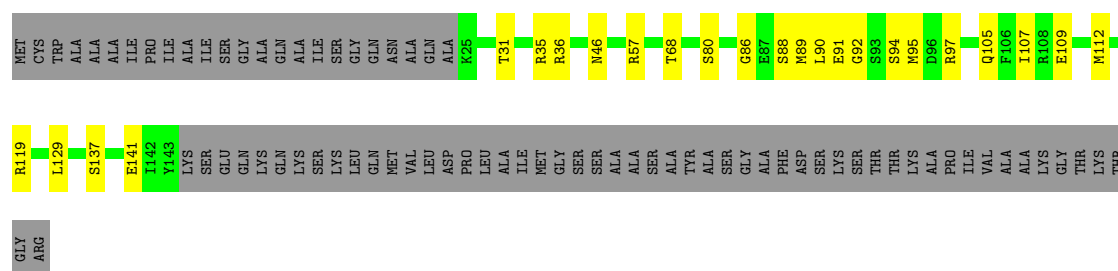
Mol	Chain	Residues	Atoms					AltConf	Trace
6	s	789	Total	C	N	O	S	0	0
			6289	3989	1083	1202	15		
6	t	789	Total	C	N	O	S	0	0
			6289	3989	1083	1202	15		
6	u	789	Total	C	N	O	S	0	0
			6289	3989	1083	1202	15		
6	v	789	Total	C	N	O	S	0	0
			6289	3989	1083	1202	15		
6	w	789	Total	C	N	O	S	0	0
			6289	3989	1083	1202	15		
6	x	789	Total	C	N	O	S	0	0
			6289	3989	1083	1202	15		

Chain Z:  45% 15% 39%



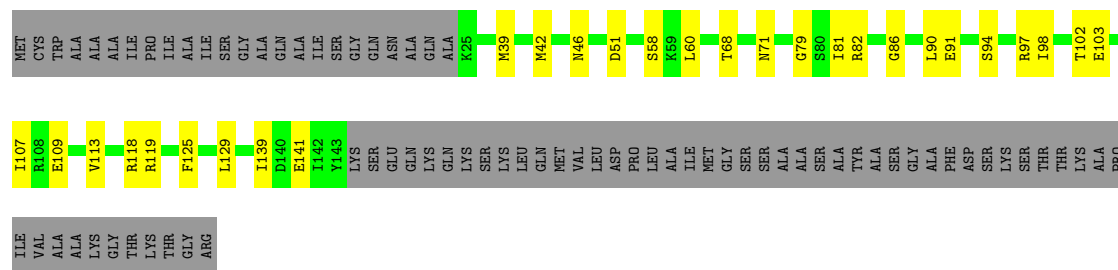
• Molecule 1: Internal virion protein gp14

Chain y:  48% 12% 39%



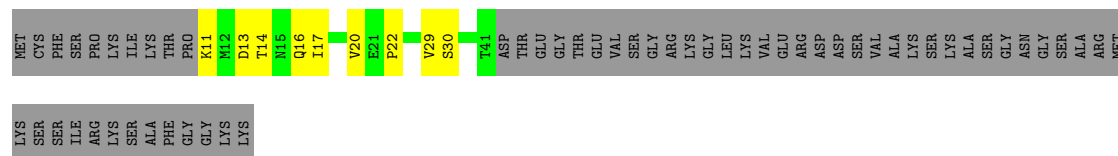
• Molecule 1: Internal virion protein gp14

Chain z:  46% 14% 39%



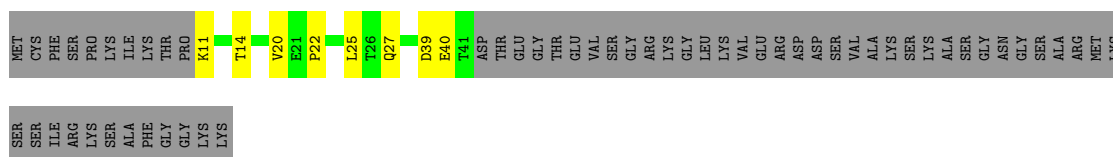
• Molecule 2: Protein 6.7

Chain 2:  25% 10% 65%

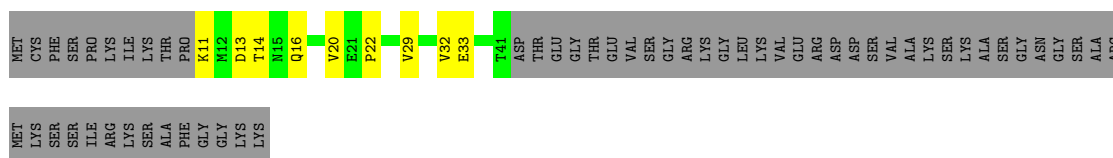


• Molecule 2: Protein 6.7

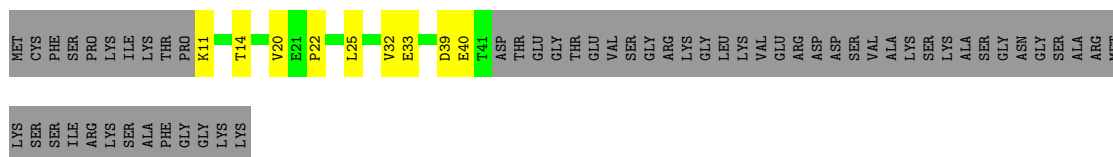
Chain 3:  26% 9% 65%



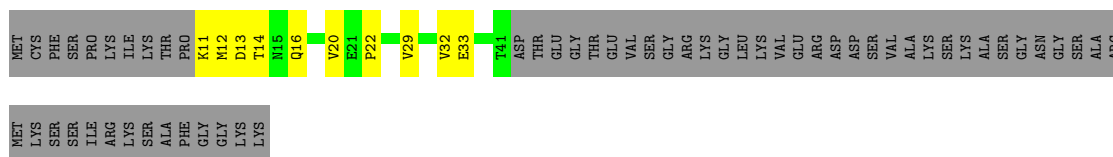
- Molecule 2: Protein 6.7



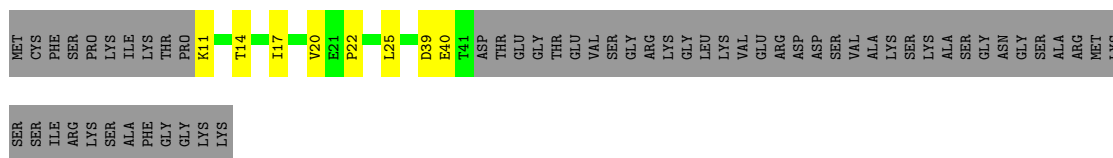
- Molecule 2: Protein 6.7



- Molecule 2: Protein 6.7

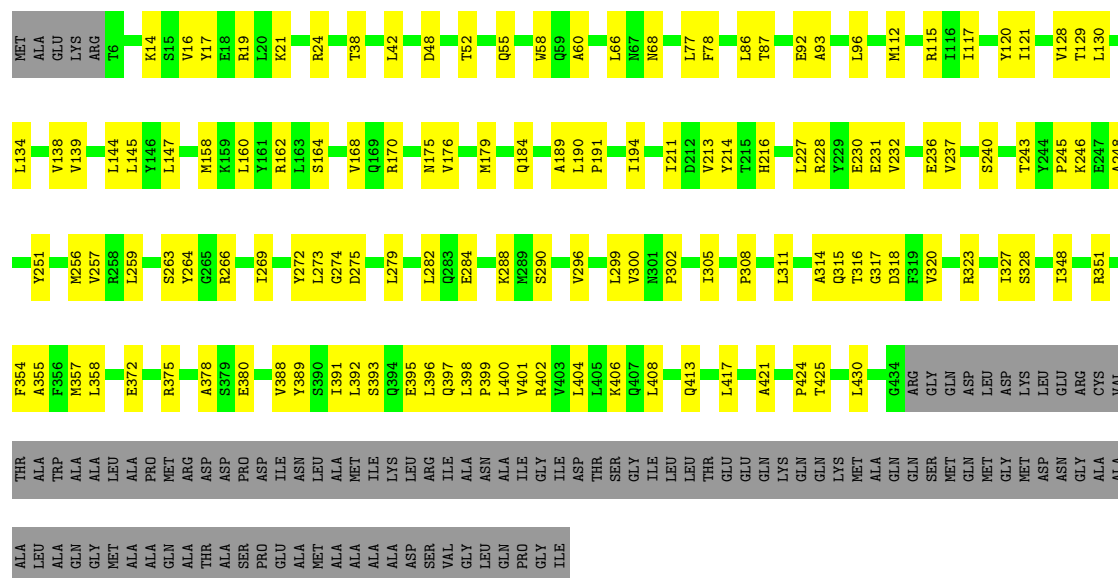


- Molecule 2: Protein 6.7



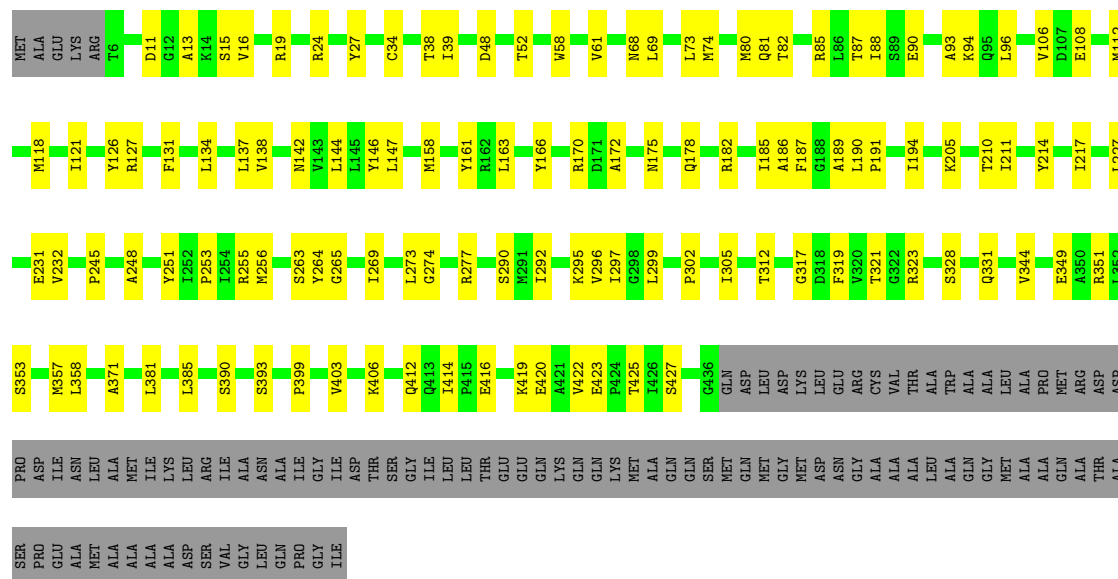
- Molecule 2: Protein 6.7





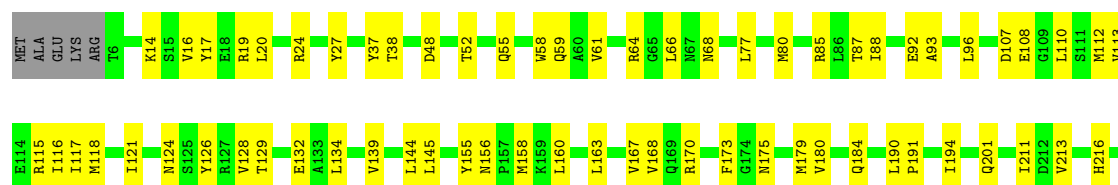
• Molecule 3: Portal protein

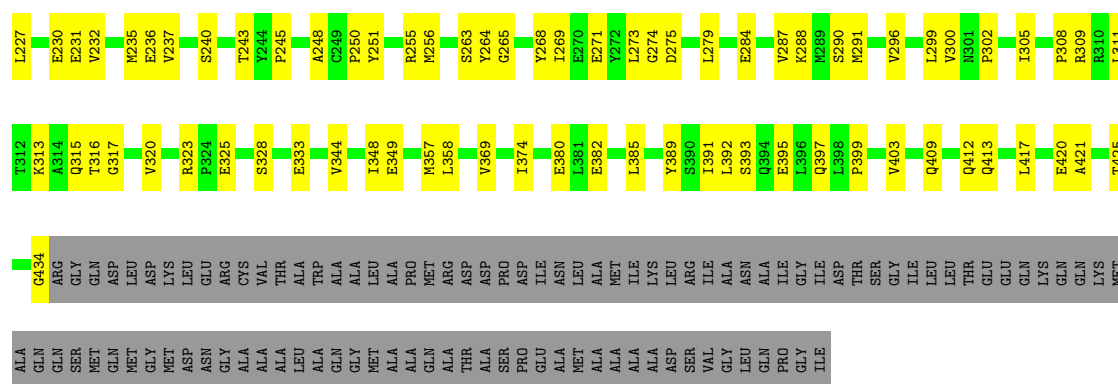
Chain B: 58% 22% 20%



• Molecule 3: Portal protein

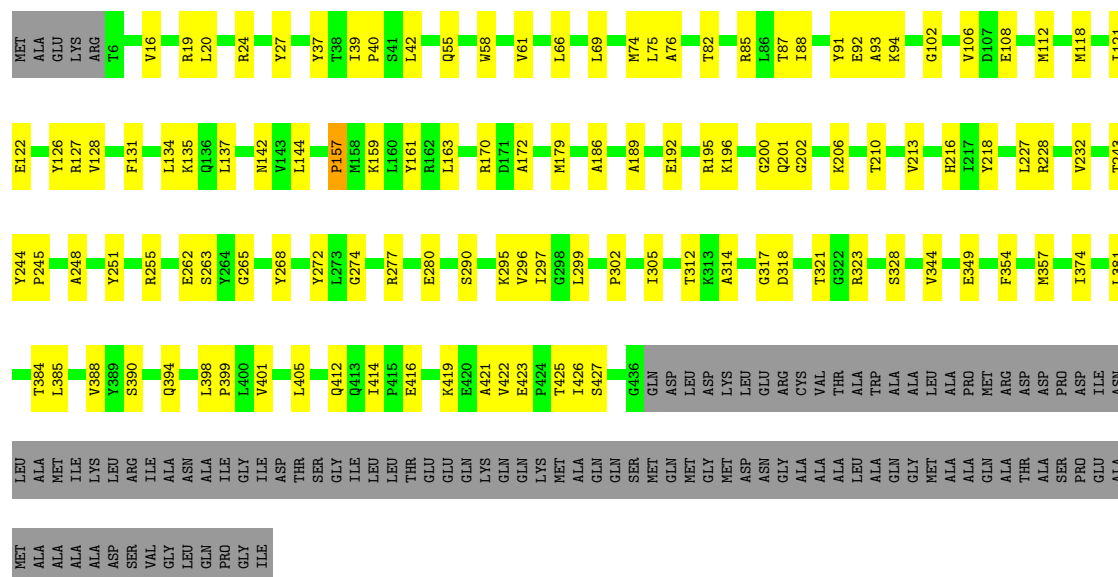
Chain C: 54% 26% 20%





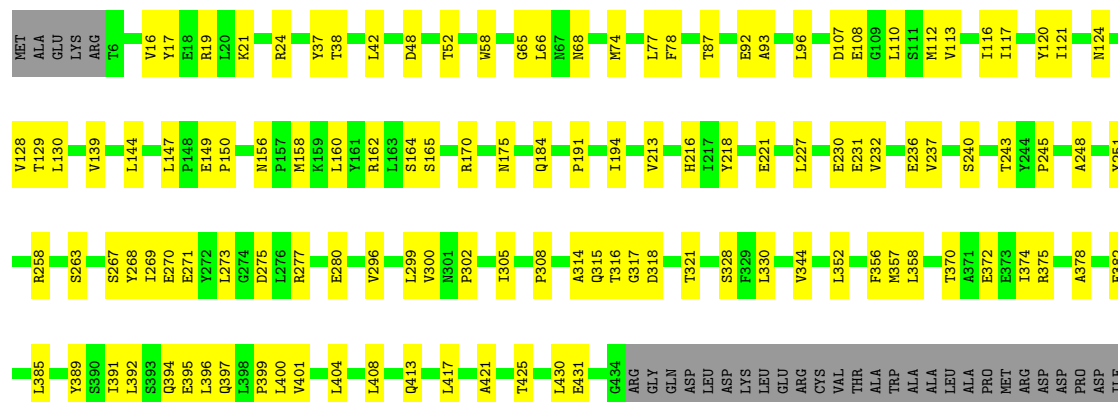
• Molecule 3: Portal protein

Chain D: 59% 22% 20%

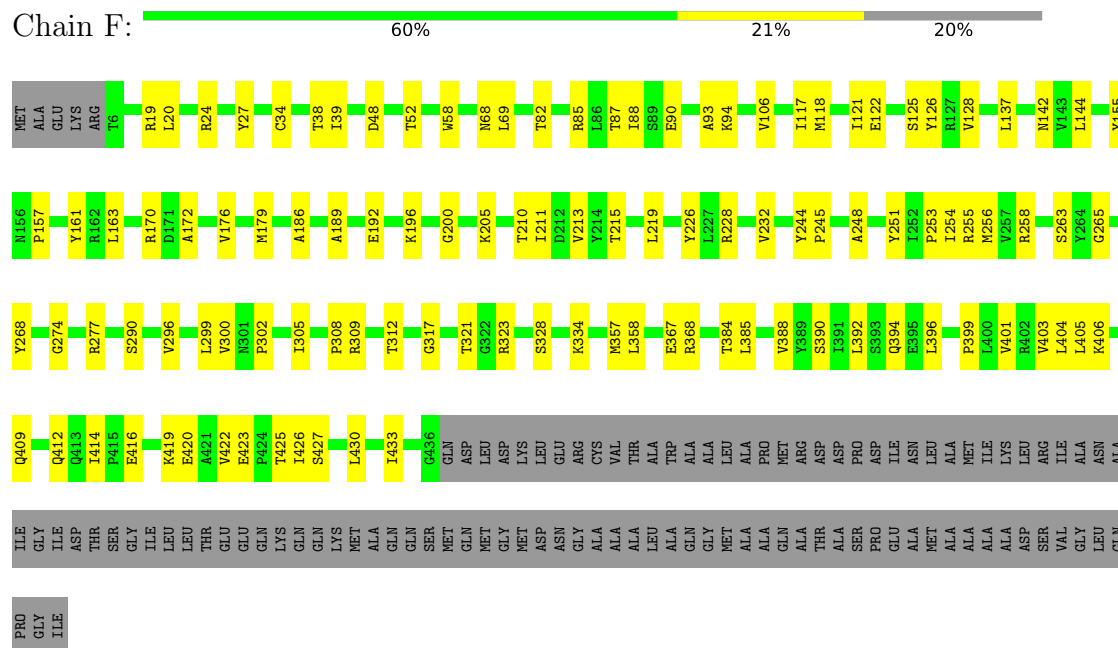


• Molecule 3: Portal protein

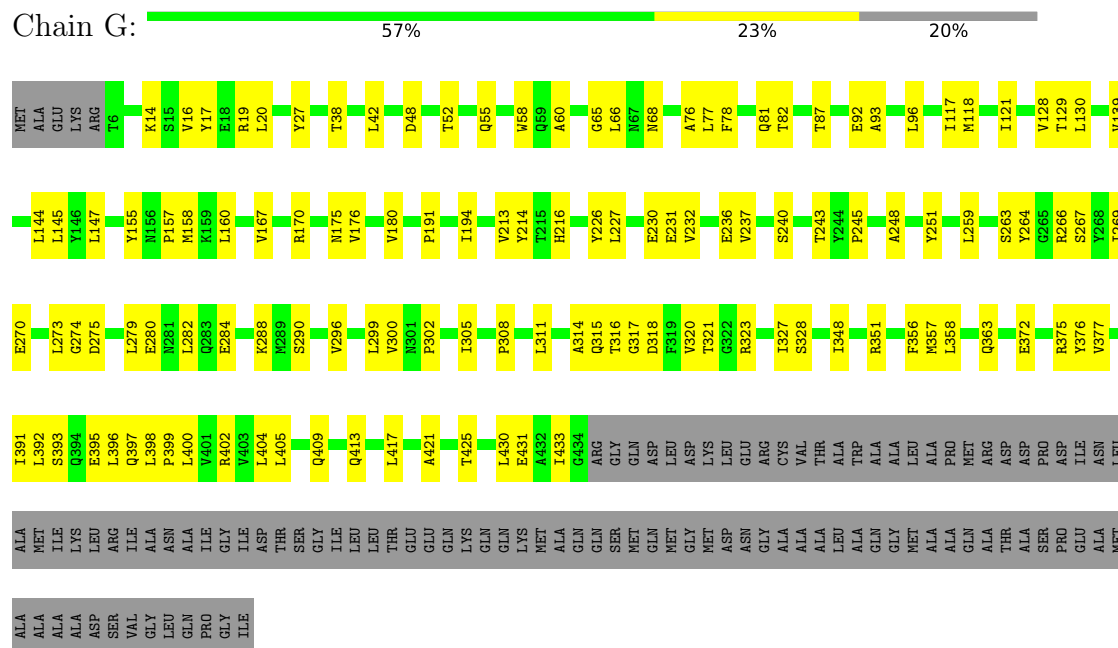
Chain E: 58% 22% 20%



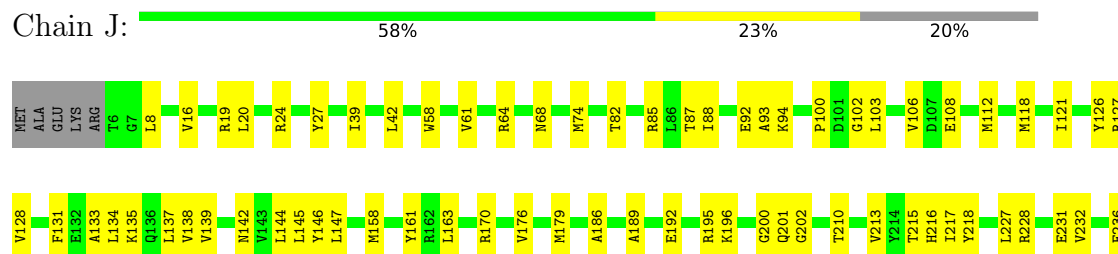
- Molecule 3: Portal protein

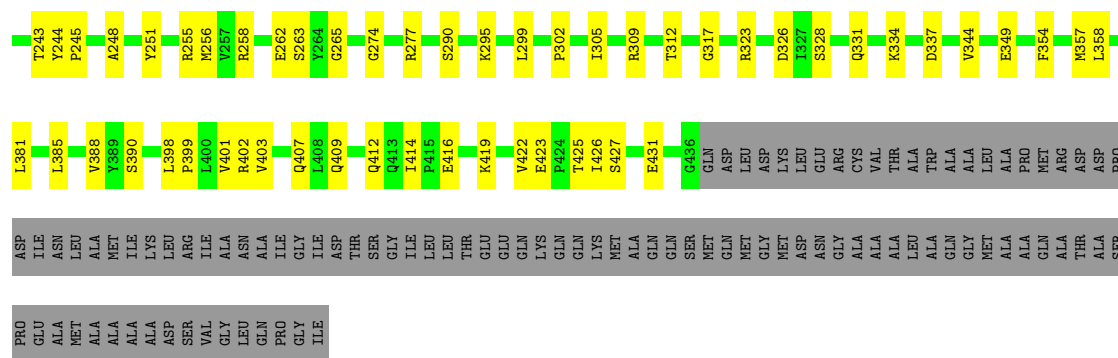


- Molecule 3: Portal protein



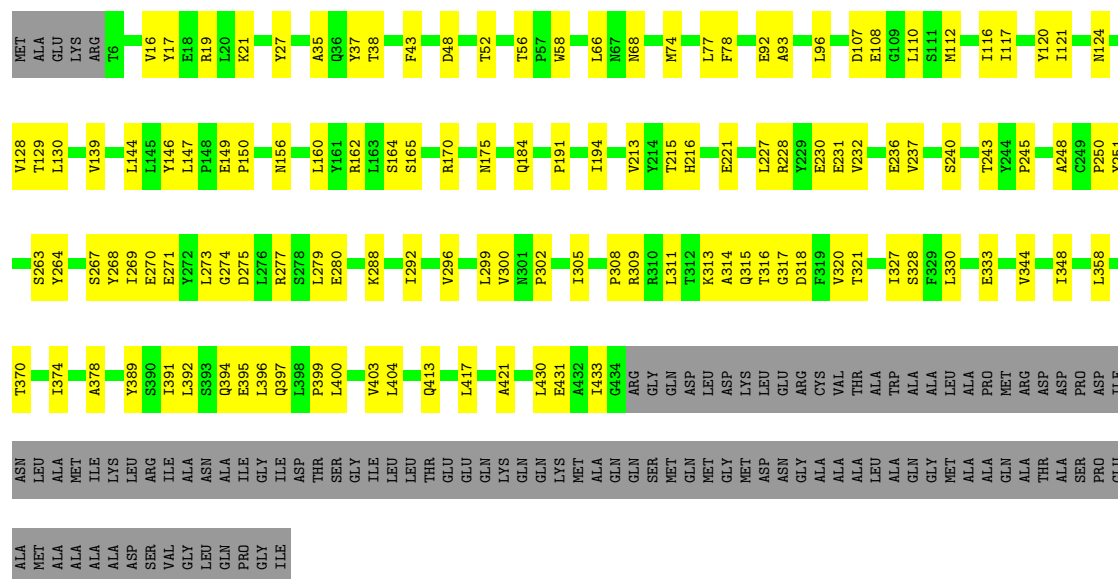
- Molecule 3: Portal protein





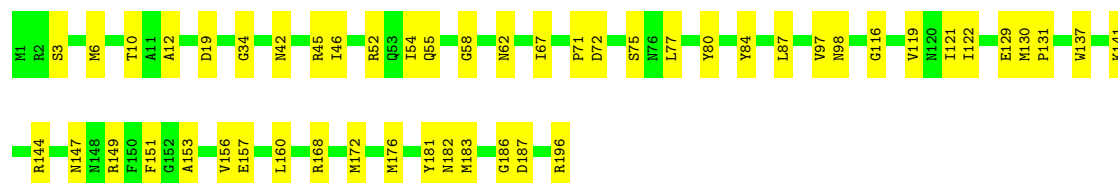
• Molecule 3: Portal protein

Chain K: 57% 23% 20%

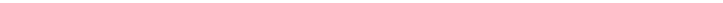


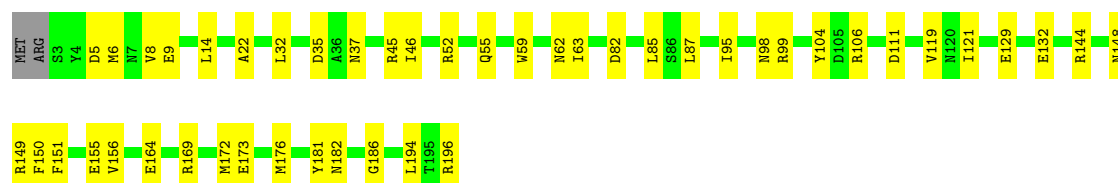
- Molecule 4: Tail tubular protein gp11

Chain M: 74% 26%



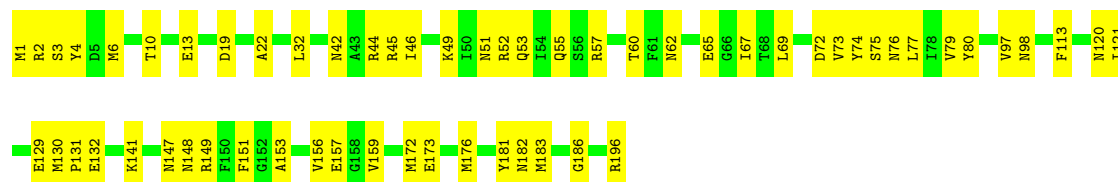
- Molecule 4: Tail tubular protein gp11

Chain N:  76% 23%



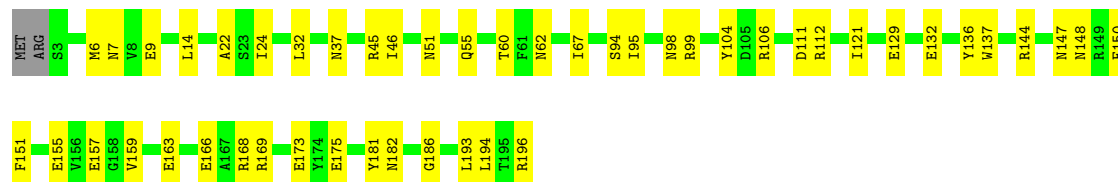
- Molecule 4: Tail tubular protein gp11

Chain 0: 70% 30%



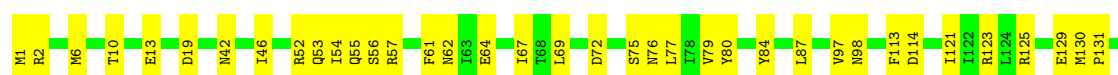
- Molecule 4: Tail tubular protein gp11

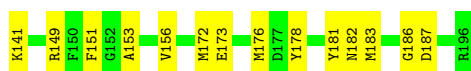
Chain P: 74% 24% .



- Molecule 4: Tail tubular protein gp11

Chain Q:  74% 26%





- Molecule 4: Tail tubular protein gp11

Chain R: 78% 21%



- Molecule 4: Tail tubular protein gp11

Chain S: 76% 24%



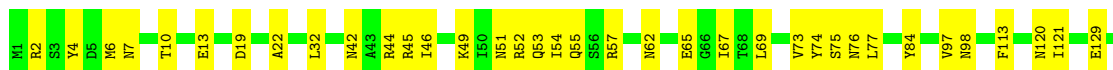
- Molecule 4: Tail tubular protein gp11

Chain T: 73% 26%



- Molecule 4: Tail tubular protein gp11

Chain U: 72% 28%



- Molecule 4: Tail tubular protein gp11

Chain V: 72% 27%





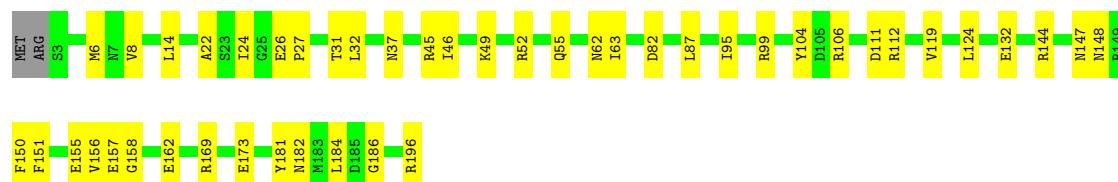
• Molecule 4: Tail tubular protein gp11

Chain W: 76% 24%



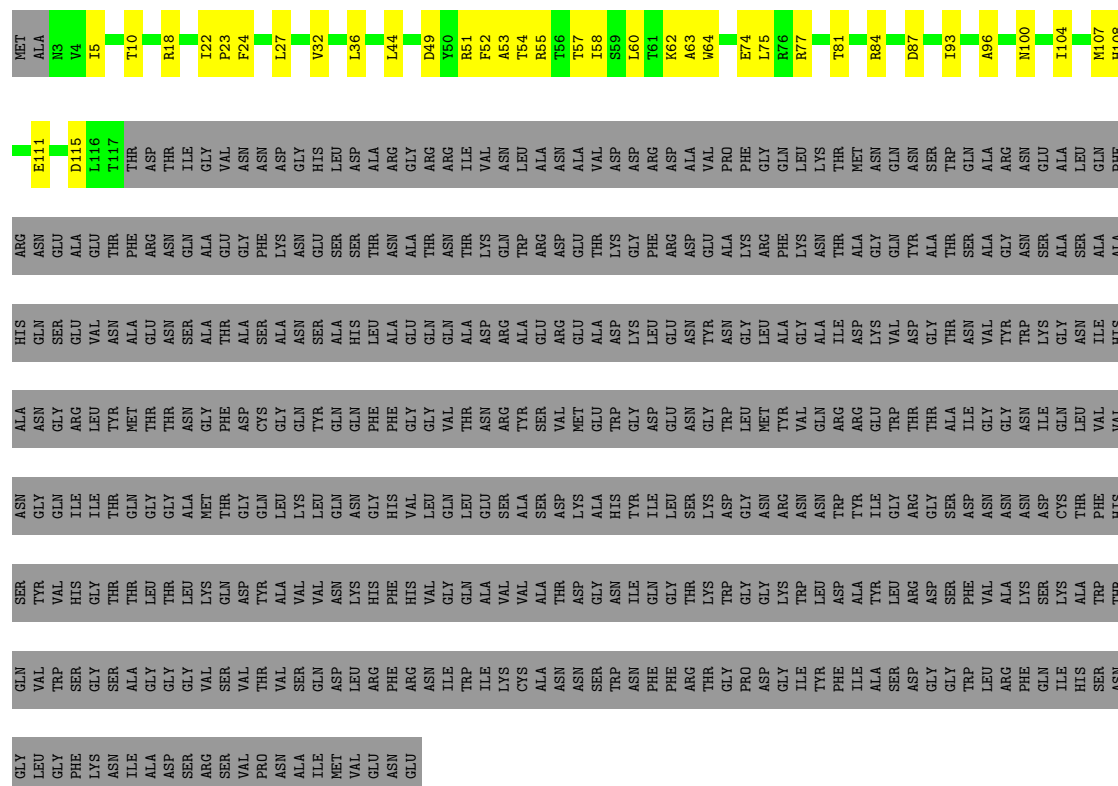
• Molecule 4: Tail tubular protein gp11

Chain X: 76% 23%



• Molecule 5: Tail fiber protein

Chain a: 14% 7% 79%



- Molecule 5: Tail fiber protein

Chain b:  12% 9% 80%

GLY	ILE	TYR	ASP	ILE	ALA	TYR	LEU	ASP	SER	GLY	ASP	GLY	TRP	PHE	VAL	ALA	ASN	ALA	ASN	GLY	VAL	ASN	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY	ASP	GLY	TRP	GLY
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- Molecule 5: Tail fiber protein

Chain c:  12% 8% 80%

ASP	ASP	ASP	ASP	CYS	THR	PHE	THR	VAL	HIS	TYR	VAL	GLN	GLY	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR
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- Molecule 5: Tail fiber protein



GLY	LEU	GLY	PHE	LYS	ASN	ILE	ASP	ARG	SER	VAL	GLN	SER	ASN	ALA	ASN	GLN	VAL	GLY	LEU	GLY	VAL	GLY	ASN	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	GLY	
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- Molecule 5: Tail fiber protein



ILE	THR	THR	L85	MET
ASP	ALA	MET	L86	ALA
LYS	GLY	ASN	D87	ASN
VAL	GLN	GLN	D90	VAL
ASP	TYR	ASN		ILE
GLY	ALA	SER		K6
THR	THR	GLN	L94	T7
ASN	SER	TRP		V8
VAL	ALA	ALA	Y97	L9
TYR	GLY	ARG		
TRP	ASN	ASN	V101	L13
LYS	SER	GLU		D14
GLY	ALA	ALA	I104	G15
ILE	SER	LEU		
ILE	ALA	GLN	H108	F20
HIS	ALA	PHE		N21
ASN	HIS	ARG	E111	T22
GLN	GLN	ASN		P23
GLY	SER	GLU		F24
ARG	GLU	ALA	R114	E25
LEU	VAL	GLU	D115	Y26
TYR	ASN	THR	L116	L27
MET	ALA	PHE	T117	A28
THR	GLU	ARG	THR	R29
THR	ASN	ASN	ASP	K30
ASN	SER	GLN	ILE	F31
GLY	ALA	ALA	GLY	
PHE	THR	GLU	VAL	V34
ASP	ALA	GLY	ASN	
CYS	SER	PHE	ASN	I37
GLN	ALA	LYS	ASP	
GLN	ASN	ASN	GLY	L44
TYR	SER	GLU	HIS	T45
GLN	ALA	SER	LEU	I46
GLN	HIS	SER	ASP	
PHE	LEU	THR	ALA	D49
PHE	ALA	ASN	ARG	Y50
GLY	GLU	ALA	GLY	R51
GLY	GLN	THR	ARG	
VAL	GLN	ASN	ARG	T56
THR	ALA	THR	ILE	T57
ASN	ASP	LYS	VAL	L60
ARG	ARG	GLN	ASN	T61
TYR	ALA	TRP	LEU	
SER	GLU	ARG	ALA	
VAL	ARG	ASP	ASN	W64
MET	GLU	GLU	ALA	G65
GLU	ALA	THR	VAL	P66
TRP	ASP	LYS	ASP	
GLY	LYS	GLY	ASP	T72
ASP	LEU	PHE	ARG	
GLU	GLU	ARG	ASP	L76
ASN	ASN	ASP	ALA	R77
GLY	TYR	GLU	VAL	V78
TRP	ASN	ALA	PRO	T79
LEU	GLY	LYS	PHE	
MET	LEU	ARG	GLY	S80
TYR	ALA	PHE	GLN	T81
VAL	GLY	LYS	LEU	
ILE	ALA	ASN	LYS	R84

- Molecule 5: Tail fiber protein

[illegible]

- Molecule 5: Tail fiber protein



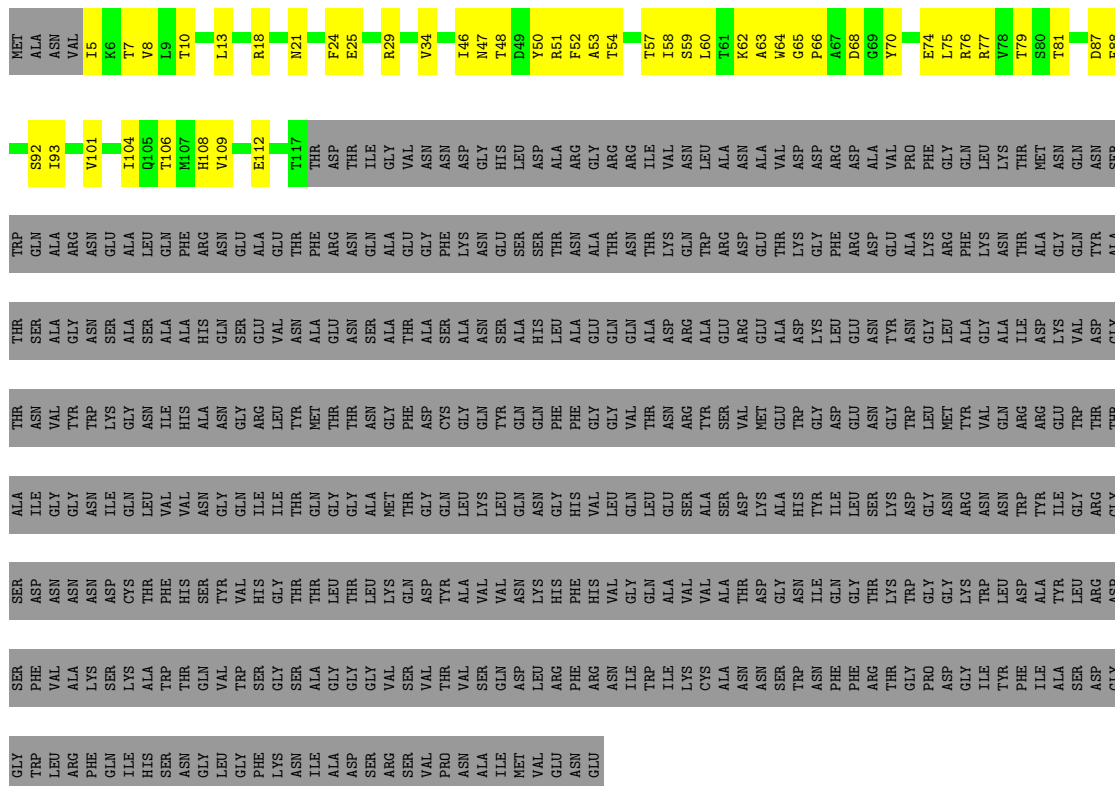
MET	ALA	ASN	VAL	I5	K6	T7	V8	R18	D19	F20	N21	F24	E25	V38	D40	R41	L44	T45	I46	N47	T48	Y50	R51	F52	A53	S59	K62	G69	E74	L75	R76	R77	T81	R84	S92	I93	L94	R95	D98	V101	T104
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- Molecule 5: Tail fiber protein



- Molecule 5: Tail fiber protein

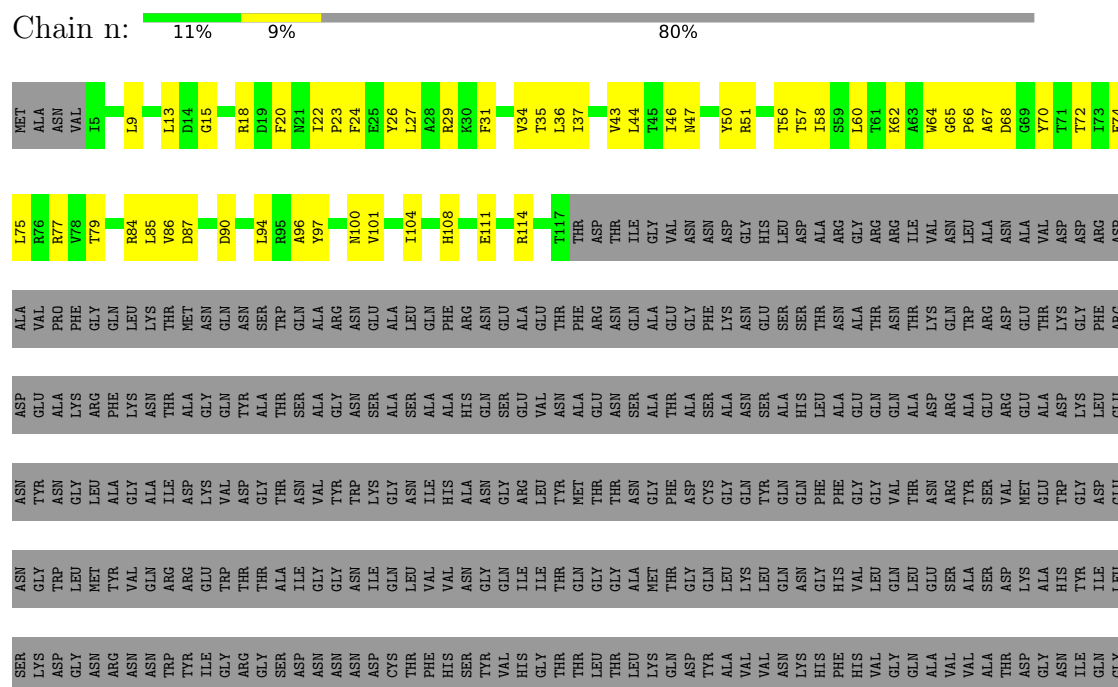




- Molecule 5: Tail fiber protein



- Molecule 5: Tail fiber protein



- Molecule 5: Tail fiber protein

[illegible]

- Molecule 5: Tail fiber protein



TYR	MET	THR	ASN	ALA	THR	PHE	THR	T117	MET
	THR	THR	GLU	GLU	ARG	ASN	ARG	ASP	H3
	ASN	ASN	SER	ASN	GLN	ASN	GLN	ILE	V4
	GLY	PHE	THR	ALA	ALA	GLU	GLU	VAL	T10
	ASP	CYS	ALA	SER	GLY	PHE	ASN	ASN	L13
	GLY	GLY	ALA	ALA	LYS	ASP	ASP	ASP	L17
	GLN	TYR	ASN	ASN	ASN	GLU	GLY	GLN	N17
	GLN	GLN	ALA	SER	SER	SER	LEU	THR	R18
	GLN	PHE	HIS	LEU	THR	THR	ALA	ALA	N21
	PHE	PHE	ALA	LEU	ASN	ASN	ARG	GLY	I22
GLY	PHE	GLY	GLU	GLU	ALA	THR	ALA	ARG	P23
	GLY	GLY	GLN	GLN	THR	THR	THR	ARG	F24
	VAL	VAL	GLN	GLN	ASN	ASN	VAL	ARG	L27
	THR	THR	ASN	ASP	LYS	LYS	VAL	ILE	A28
	ASN	ARG	ALA	ARG	GLN	GLN	ASN	ASN	R29
	TYR	TYR	ALA	ALA	TRP	TRP	LEU	LEU	V32
	SER	SER	GLU	GLU	ARG	ARG	ALA	ALA	L36
	VAL	MET	GLU	GLU	GLU	ASP	ASN	ASN	L44
	GLU	GLU	ALA	ALA	THR	THR	VAL	VAL	D49
	TRP	TRP	ASP	ASP	LYS	LYS	ASP	ASP	M64
GLU	GLY	GLY	LEU	LEU	PHE	PHE	ARG	ASP	G65
	GLU	ASN	GLU	GLU	ARG	ASP	ASP	ALA	Y70
	GLY	GLY	TYR	TYR	GLU	GLU	VAL	VAL	E74
	TRP	TRP	ASN	ALA	LYS	LYS	PHE	PHE	L75
	LEU	MET	LEU	ALA	ARG	PHE	GLN	GLN	R76
	VAL	VAL	GLY	GLY	LYS	ASN	LYS	LYS	R77
	GLN	GLN	ALA	ALA	ASN	THR	THR	THR	T81
	ARG	ARG	ILE	ASP	GLY	GLY	ASN	ASN	I93
	GLU	GLU	LYS	LYS	GLN	TYR	ASN	ASN	L94
	TRP	TRP	VAL	VAL	ASP	THR	THR	TRP	F95
ALA	ALA	ALA	GLY	GLY	ALA	ALA	THR	TRP	A96
	ILE	ILE	ASN	ASN	SER	SER	GLN	GLN	N100
	GLY	GLY	VAL	VAL	GLY	GLY	ARG	ARG	T104
	GLY	ASN	ASN	LYS	SER	SER	ASN	ASN	G105
	ILE	ILE	TRP	TRP	ALA	ALA	ALA	ALA	T106
	LEU	LEU	GLN	GLN	SER	SER	LEU	LEU	H107
	VAL	VAL	ILE	ILE	ALA	ALA	GLN	GLN	H108
	VAL	VAL	HIS	HIS	ALA	ALA	PHE	PHE	V109
	ASN	ASN	ALA	ALA	ASN	ASN	ARG	ARG	A110
	GLY	GLY	GLN	GLN	GLN	GLN	ASN	ASN	E111
ILE	GLN	GLN	GLY	GLY	SER	SER	GLU	GLU	D115
	ILE	ILE	TRP	TRP	VAL	VAL	THR	THR	T116

[illegible]

- Molecule 5: Tail fiber protein

Chain q:  11% 9% 80%

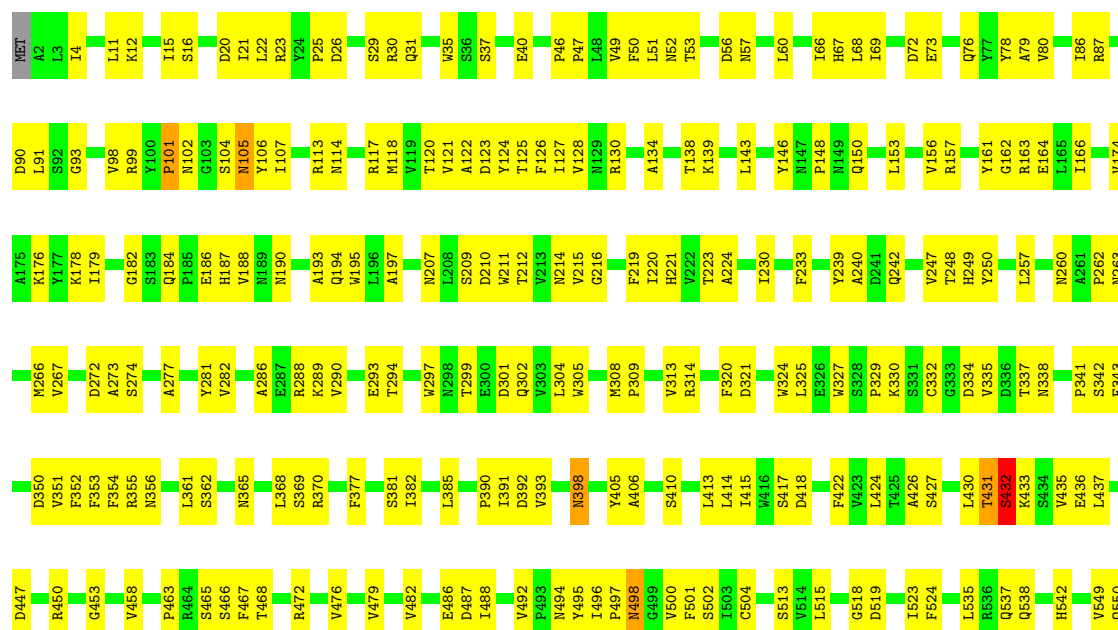
ASP	GLY	ASN	MET	LEU	ARG	GLY	V73	MET
GLY	LYS	ASN	ALA	ALA	PHE	GLN	T79	ALA
ILE	TRP	ASN	VAL	GLY	LYS	LEU		ASN
PHE	ASP	TRP	ASN	ILE	THR	THR	R84	VAL
ILE	ALA	TYR	ARG	ASP	ALA	MET	V86	ILE
ALA	TYR	ILE	GLU	LYS	GLY	ASN	D87	K6
SER	LEU	TRP	GLY	VAL	GLN	GLN		T7
ASP	ARG	GLY	THR	ASP	TYR	ASN	I93	V8
GLY	ASP	GLY	THR	GLY	ALA	SER	L94	L9
GLY	SER	SER	THR	THR	THR	TRP	R95	
TRP	PHE	ASP	ILE	ASN	SER	GLN	A96	L13
LEU	VAL	ASN	GLY	VAL	ALA	ALA	Y97	
ARG	ALA	ASN	GLY	TYR	GLY	ARG		R18
PHE	LYS	ASN	GLY	TRP	ASN	ASN	M100	D19
ILE	GLN	ASP	ILE	LYS	SER	GLU	V101	F20
GLN	LYS	CYS	GLY	GLY	ALA	ALA		N21
HIS	ALA	PHE	LEU	ASN	SER	LEU	I104	I22
SER	TRP	THR	VAL	ILE	ALA	GLN	Q105	P23
ASN	THR	HIS	VAL	HIS	ALA	PHE	T106	F24
GLY	GLN	TYR	GLY	ASN	HIS	ARG		E25
LEU	VAL	SER	GLY	ASN	GLN	ASN	E111	Y26
PHE	TRP	VAL	GLN	GLY	SER	GLU		L27
GLY	GLY	HIS	ILE	ARG	GLY	ALA	R114	A28
LYS	GLY	GLY	ILE	LEU	VAL	GLU		R29
ASN	SER	THR	ILE	TYR	ASN	THR	T117	K30
ILE	ALA	THR	GLN	MET	ALA	PHE	THR	F31
ALA	GLY	THR	GLY	THR	GLU	ASN	ASP	V34
ASP	GLY	THR	GLY	THR	GLY	ASN	THR	T35
SER	GLY	LEU	MET	ASN	SER	GLN	ILE	L36
ARG	VAL	LYS	ALA	GLY	ALA	ALA	GLY	I37
SER	SER	GLN	THR	PHE	THR	GLU	VAL	
VAL	VAL	ASP	THR	ASP	ALA	PHE	ASN	R41
PRO	THR	TYR	GLN	CYS	SER	ASN	ASN	K42
ALA	VAL	ALA	LEU	GLY	ASN	LYS	ASP	V43
ILE	GLN	VAL	LYS	GLN	ASN	ASN	GLY	L44
MET	ASP	VAL	LEU	TYR	SER	GLU	HIS	T45
GLY	LEU	LYS	ASN	GLN	ALA	SER	ASP	I46
ASN	PHE	HIS	HIS	PHE	ALA	THR	ALA	
ASN	ARG	HIS	VAL	GLY	GLY	ALA	ARG	Y50
GLU	ASN	VAL	LEU	GLY	GLN	THR	GLY	R51
	ILE	GLY	GLN	VAL	GLN	ARG	ARG	F52
	TRP	ALA	GLN	THR	ALA	THR	ARG	A53
	ILE	GLN	LEU	VAL	ILE	ILE	ILE	
	LYS	VAL	SER	ARG	ARG	GLN	VAL	T56
	CYS	VAL	ALA	TYR	ALA	TRP	LEU	T57
	ALA	VAL	SER	SER	GLU	ASN	ASN	I58
	ASN	THR	ALA	GLU	ARG	ARG	ALA	S69
	ASN	ASP	ASP	VAL	ARG	TRP	L60	L60
	ASN	GLY	GLY	MET	GLU	GLU	ALA	K62
	SER	GLY	THR	GLU	ALA	THR	VAL	A63
	TRP	ASN	THR	TRP	ASP	LYS	ASP	W64
	ASN	ILE	TYR	GLY	LYS	GLY	ASP	
	PHE	GLN	ILE	ASP	LEU	PHE	ARG	T72
	PHE	GLY	LEU	GLU	GLU	ARG	ASP	I73
	ARG	THR	SER	ASN	ASN	ALA	ALA	E74
	THR	LYS	SER	GLY	TYR	GLU	L75	L75
	GLY	TRP	ASP	TRP	ASN	THR	PRO	R76
	PRO	GLY	GLY	LEU	GLY	VAL	PHE	R77

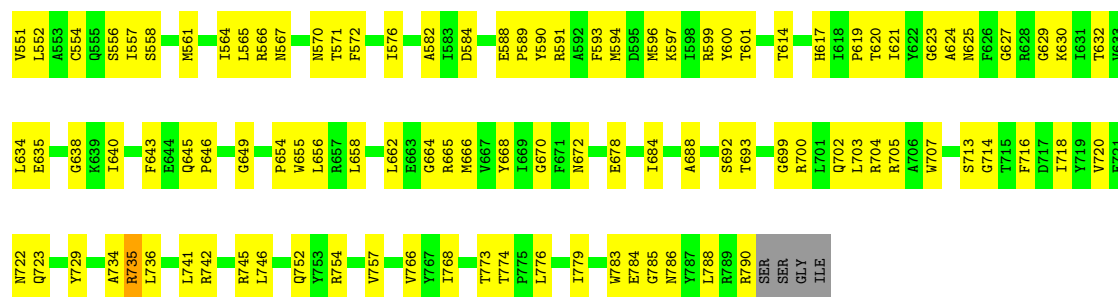
- Molecule 5: Tail fiber protein

Chain r: 12% 8% 80%

[illegible]

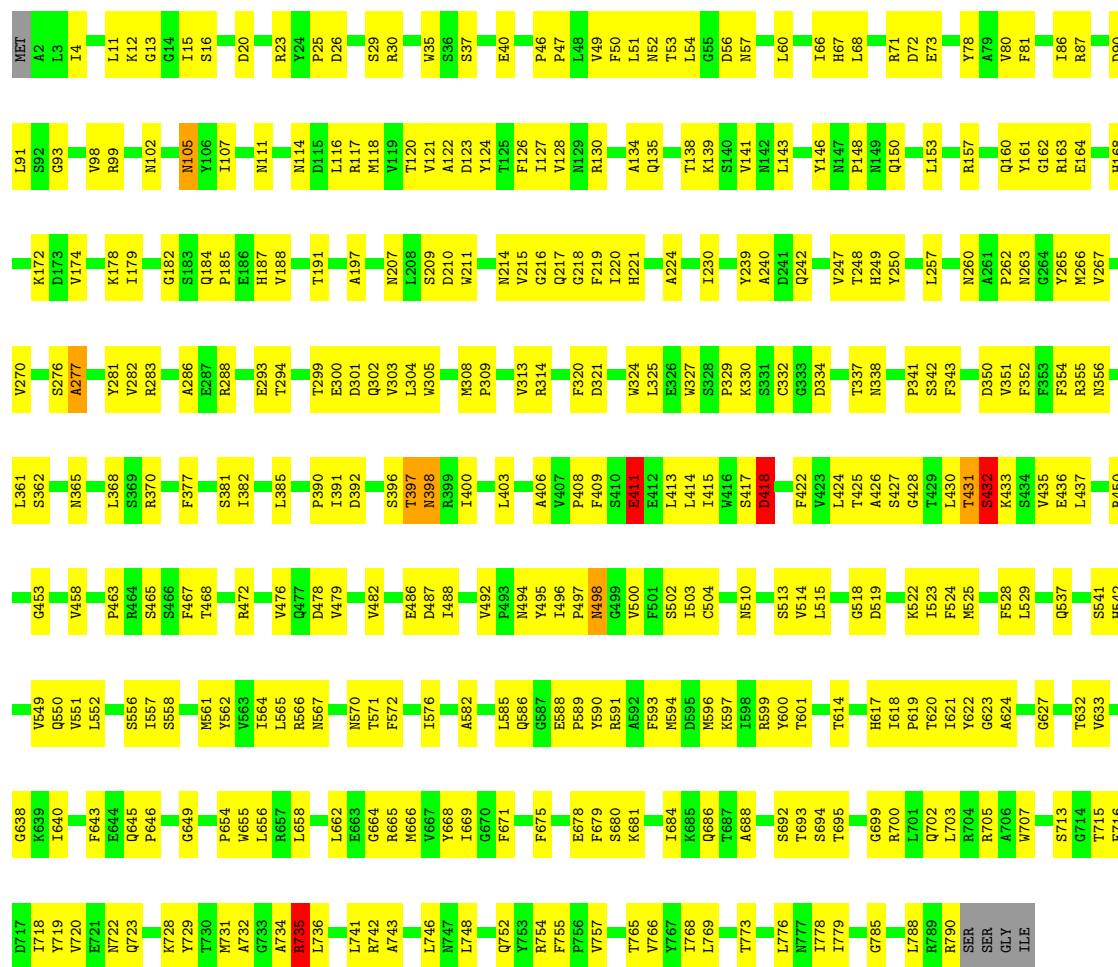






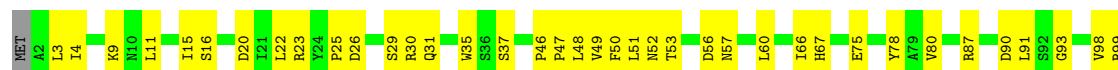
• Molecule 6: Tail tubular protein gp12

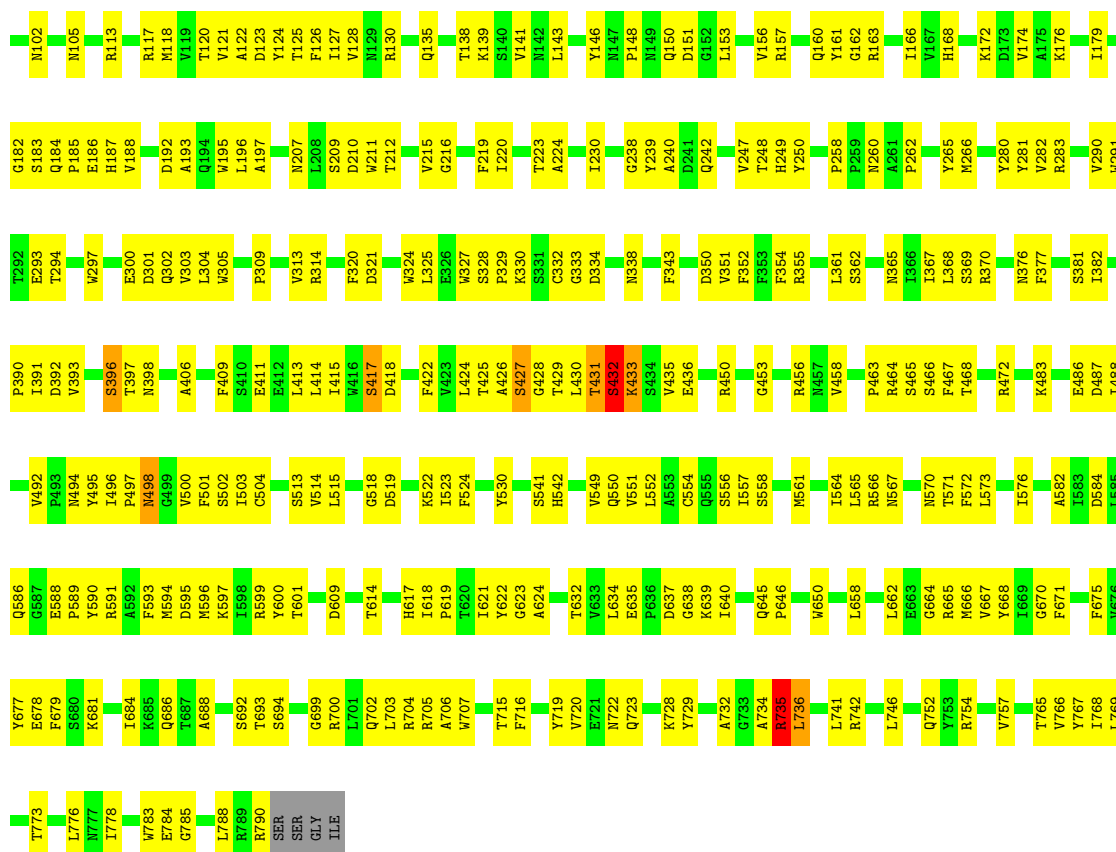
Chain v: 56% 43%



• Molecule 6: Tail tubular protein gp12

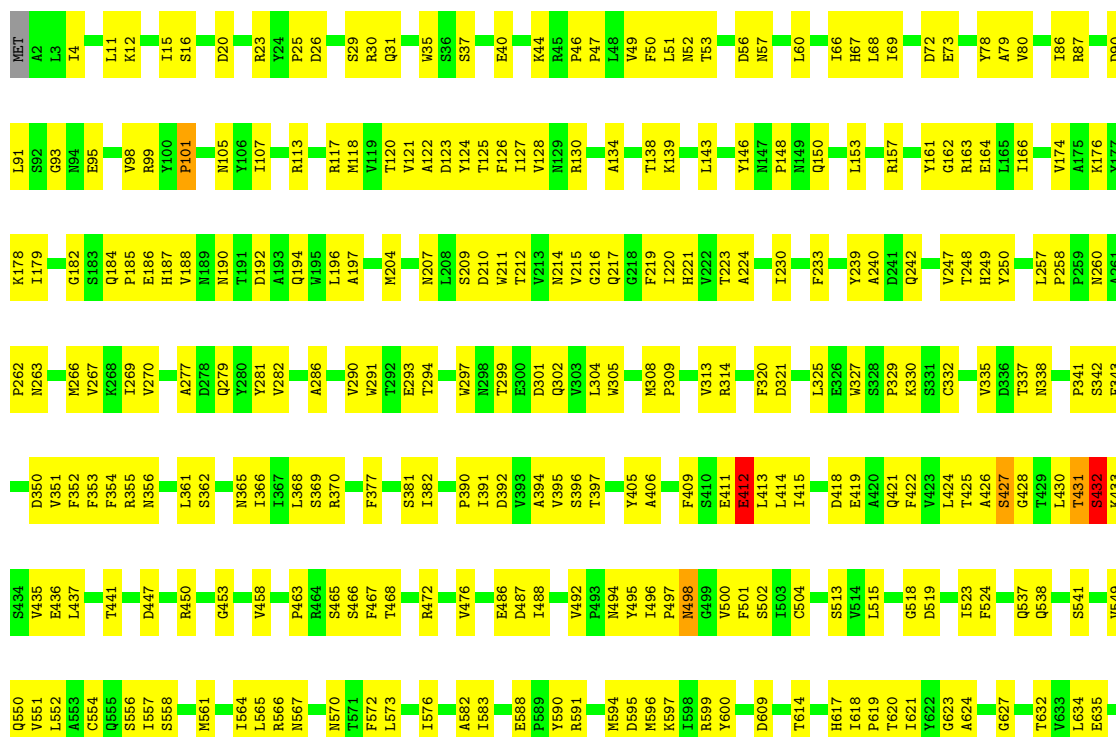
Chain w: 57% 41%





• Molecule 6: Tail tubular protein gp12

Chain x: 56% 42%



G638	K639	I640	F643	E644	Q645	P646	G649	P654	W655	L656	R657	L658	L662	E663	G664	R665	Y668	F671	F675	V676	Y677	E678	K681	I684	A688	S692	T693	S694	T695	G699	R700	L701	Q702	L703	R704	R705	A706	W707	G714	T715	F716	D717	I718	Y719	V720	E721
N722	Q723	Y729	A734	R735	L736	G737	S738	N739	T740	L741	R742	R745	L746	Q752	Y753	R754	V757	T765	Y766	Y767	I768	L769	S770	T773	T774	P775	L776	N777	I778	I779	W783	E784	G785	L788	R789	R790	SER	SER	GLY	ILE						

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	23461	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	35	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	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	0.14	0/924	0.30	0/1235
1	1	0.15	0/924	0.34	0/1235
1	Y	0.16	0/924	0.32	0/1235
1	Z	0.15	0/924	0.32	0/1235
1	y	0.15	0/924	0.32	0/1235
1	z	0.17	0/924	0.31	0/1235
2	2	0.17	0/233	0.36	0/315
2	3	0.17	0/233	0.34	0/315
2	4	0.16	0/233	0.35	0/315
2	5	0.18	0/233	0.35	0/315
2	6	0.16	0/233	0.36	0/315
2	7	0.17	0/233	0.36	0/315
2	8	0.20	0/370	0.38	0/497
2	9	0.17	0/370	0.36	0/497
2	AA	0.16	0/370	0.33	0/497
2	AB	0.16	0/370	0.40	0/497
2	AC	0.14	0/370	0.33	0/497
2	AD	0.14	0/370	0.33	0/497
3	A	0.15	0/3419	0.35	0/4632
3	B	0.15	0/3434	0.32	0/4651
3	C	0.15	0/3419	0.34	0/4632
3	D	0.16	0/3434	0.34	1/4651 (0.0%)
3	E	0.15	0/3419	0.35	0/4632
3	F	0.14	0/3434	0.31	0/4651
3	G	0.15	0/3419	0.35	0/4632
3	H	0.14	0/3434	0.31	0/4651
3	I	0.15	0/3419	0.34	0/4632
3	J	0.14	0/3434	0.31	0/4651
3	K	0.14	0/3419	0.34	0/4632
3	L	0.14	0/3434	0.31	0/4651
4	M	0.20	0/1592	0.35	0/2153
4	N	0.20	0/1573	0.35	0/2129
4	O	0.19	0/1592	0.33	0/2153
4	P	0.19	0/1573	0.35	0/2129

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
4	Q	0.19	0/1592	0.35	0/2153
4	R	0.19	0/1573	0.35	0/2129
4	S	0.20	0/1592	0.35	0/2153
4	T	0.22	0/1573	0.37	0/2129
4	U	0.19	0/1592	0.35	0/2153
4	V	0.20	0/1573	0.35	0/2129
4	W	0.19	0/1592	0.34	0/2153
4	X	0.19	0/1573	0.35	0/2129
5	a	0.18	0/936	0.36	0/1274
5	b	0.19	0/921	0.46	0/1253
5	c	0.19	0/921	0.45	0/1253
5	d	0.18	0/936	0.35	0/1274
5	e	0.20	0/921	0.41	0/1253
5	f	0.18	0/921	0.42	0/1253
5	g	0.18	0/936	0.35	0/1274
5	h	0.17	0/921	0.41	1/1253 (0.1%)
5	i	0.18	0/921	0.39	0/1253
5	j	0.18	0/936	0.32	0/1274
5	k	0.20	0/921	0.54	2/1253 (0.2%)
5	l	0.17	0/921	0.40	0/1253
5	m	0.19	0/936	0.35	0/1274
5	n	0.22	0/921	0.55	1/1253 (0.1%)
5	o	0.20	0/921	0.46	1/1253 (0.1%)
5	p	0.21	0/936	0.39	0/1274
5	q	0.18	0/921	0.40	0/1253
5	r	0.23	0/921	0.54	4/1253 (0.3%)
6	s	0.32	0/6449	0.58	8/8772 (0.1%)
6	t	0.29	0/6449	0.55	5/8772 (0.1%)
6	u	0.30	0/6449	0.55	4/8772 (0.0%)
6	v	0.30	0/6449	0.59	12/8772 (0.1%)
6	w	0.31	0/6449	0.57	7/8772 (0.1%)
6	x	0.32	0/6449	0.59	10/8772 (0.1%)
All	All	0.22	0/124632	0.43	56/168984 (0.0%)

There are no bond length outliers.

All (56) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	v	736	LEU	N-CA-C	9.92	122.10	111.28
6	x	736	LEU	N-CA-C	8.98	121.07	111.28
6	x	105	ASN	N-CA-C	-8.61	102.53	113.72
6	s	12	LYS	N-CA-C	-8.22	102.28	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	w	105	ASN	N-CA-C	-7.91	103.44	113.72
6	x	431	THR	N-CA-C	7.79	122.14	111.54
6	v	277	ALA	CB-CA-C	-7.63	107.76	116.54
6	s	409	PHE	N-CA-C	-7.54	97.83	109.52
6	w	409	PHE	N-CA-C	-7.29	98.22	109.52
5	r	65	GLY	N-CA-C	6.84	123.91	115.22
6	x	101	PRO	N-CA-C	-6.69	101.38	111.41
6	v	105	ASN	N-CA-C	-6.65	96.63	110.80
5	r	62	LYS	N-CA-C	6.59	121.32	113.28
6	s	662	LEU	N-CA-C	-6.59	97.62	108.49
6	w	662	LEU	N-CA-C	-6.56	97.66	108.49
6	v	276	SER	N-CA-C	-6.46	104.15	111.07
6	v	431	THR	N-CA-C	6.40	120.08	111.24
6	w	280	TYR	N-CA-C	6.31	119.14	110.24
5	h	65	GLY	N-CA-C	6.31	125.21	112.34
6	u	432	SER	N-CA-C	6.24	124.09	110.80
6	t	662	LEU	N-CA-C	-6.22	102.04	110.68
6	v	409	PHE	N-CA-C	-6.21	101.74	110.50
5	o	62	LYS	N-CA-C	6.11	120.42	113.15
3	D	157	PRO	CA-N-CD	-6.07	103.50	112.00
5	r	64	TRP	N-CA-C	6.03	119.73	112.38
5	k	66	PRO	N-CA-C	-5.99	105.37	113.40
6	v	662	LEU	N-CA-C	-5.99	102.36	110.68
6	u	431	THR	N-CA-C	5.91	119.40	111.24
6	v	432	SER	N-CA-C	5.85	123.26	110.80
6	x	738	SER	N-CA-C	5.79	118.66	110.50
6	t	277	ALA	N-CA-C	5.75	117.55	111.28
6	w	432	SER	N-CA-C	5.70	122.95	110.80
6	s	100	TYR	CA-C-N	-5.63	114.45	120.03
6	s	100	TYR	C-N-CA	-5.63	114.45	120.03
6	w	431	THR	N-CA-C	5.63	119.11	111.17
6	u	662	LEU	N-CA-C	-5.61	98.85	110.80
6	x	432	SER	N-CA-C	5.53	122.57	110.80
6	v	277	ALA	N-CA-C	5.52	116.71	108.31
5	n	67	ALA	N-CA-C	-5.48	101.74	109.96
6	v	398	ASN	N-CA-C	-5.45	105.33	112.41
5	k	65	GLY	N-CA-C	5.43	123.42	112.34
6	v	735	ARG	N-CA-CB	5.37	119.56	110.49
6	s	78	TYR	N-CA-C	-5.25	100.34	108.90
6	t	100	TYR	CA-C-N	-5.24	114.84	120.03
6	t	100	TYR	C-N-CA	-5.24	114.84	120.03
6	x	735	ARG	N-CA-CB	5.24	119.34	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	x	409	PHE	N-CA-C	-5.21	101.44	109.52
6	x	740	THR	N-CA-C	5.20	116.95	111.28
6	s	280	TYR	N-CA-C	5.18	117.74	110.23
6	w	735	ARG	N-CA-CB	5.17	119.23	110.49
6	s	735	ARG	N-CA-CB	5.14	119.17	110.49
6	t	735	ARG	N-CA-CB	5.12	119.14	110.49
6	v	411	GLU	N-CA-C	5.12	121.70	110.80
6	u	101	PRO	N-CA-C	-5.10	104.08	111.22
6	x	663	GLU	N-CA-C	5.09	116.52	111.07
5	r	68	ASP	N-CA-C	5.05	118.55	111.74

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0	920	0	919	25	0
1	1	920	0	919	23	0
1	Y	920	0	919	37	0
1	Z	920	0	919	30	0
1	y	920	0	919	20	0
1	z	920	0	919	33	0
2	2	231	0	217	9	0
2	3	231	0	217	9	0
2	4	231	0	217	10	0
2	5	231	0	217	9	0
2	6	231	0	217	8	0
2	7	231	0	217	8	0
2	8	368	0	352	19	0
2	9	368	0	352	12	0
2	AA	368	0	352	10	0
2	AB	368	0	352	15	0
2	AC	368	0	352	11	0
2	AD	368	0	352	17	0
3	A	3363	0	3347	95	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	3378	0	3363	96	0
3	C	3363	0	3347	97	0
3	D	3378	0	3363	87	0
3	E	3363	0	3347	84	0
3	F	3378	0	3363	82	0
3	G	3363	0	3347	91	0
3	H	3378	0	3363	77	0
3	I	3363	0	3347	100	0
3	J	3378	0	3363	90	0
3	K	3363	0	3347	83	0
3	L	3378	0	3363	74	0
4	M	1565	0	1485	41	0
4	N	1546	0	1460	44	0
4	O	1565	0	1485	55	0
4	P	1546	0	1460	45	0
4	Q	1565	0	1485	42	0
4	R	1546	0	1460	34	0
4	S	1565	0	1485	46	0
4	T	1546	0	1460	45	0
4	U	1565	0	1485	47	0
4	V	1546	0	1460	49	0
4	W	1565	0	1485	42	0
4	X	1546	0	1460	38	0
5	a	922	0	931	30	0
5	b	907	0	916	36	0
5	c	907	0	916	35	0
5	d	922	0	931	35	0
5	e	907	0	916	36	0
5	f	907	0	916	40	0
5	g	922	0	931	31	0
5	h	907	0	916	28	0
5	i	907	0	916	31	0
5	j	922	0	931	27	0
5	k	907	0	916	41	0
5	l	907	0	916	33	0
5	m	922	0	931	33	0
5	n	907	0	916	41	0
5	o	907	0	916	30	0
5	p	922	0	931	29	0
5	q	907	0	916	39	0
5	r	907	0	916	35	0
6	s	6289	0	6051	261	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	t	6289	0	6051	262	0
6	u	6289	0	6051	250	0
6	v	6289	0	6051	266	0
6	w	6289	0	6051	263	0
6	x	6289	0	6051	257	0
All	All	122376	0	119742	3482	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 14.

All (3482) 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)
5:o:18:ARG:HH22	5:o:63:ALA:HB2	1.35	0.91
6:s:570:ASN:HD21	6:s:624:ALA:HB3	1.39	0.88
6:u:570:ASN:HD21	6:u:624:ALA:HB3	1.38	0.85
6:w:570:ASN:HD21	6:w:624:ALA:HB3	1.40	0.85
6:v:570:ASN:HD21	6:v:624:ALA:HB3	1.39	0.85
5:e:60:LEU:HD12	5:e:64:TRP:HB3	1.57	0.84
6:t:570:ASN:HD21	6:t:624:ALA:HB3	1.41	0.84
6:w:15:ILE:HG12	6:w:30:ARG:HA	1.57	0.84
4:N:151:PHE:HA	6:w:704:ARG:HD3	1.61	0.83
4:T:151:PHE:HA	6:t:704:ARG:HD3	1.61	0.82
6:t:15:ILE:HG12	6:t:30:ARG:HA	1.61	0.82
6:w:333:GLY:HA3	6:w:382:ILE:HD11	1.60	0.81
6:x:570:ASN:HD21	6:x:624:ALA:HB3	1.43	0.81
5:k:60:LEU:HD12	5:k:64:TRP:HB3	1.63	0.81
6:x:66:ILE:HG12	6:x:80:VAL:HG23	1.62	0.80
3:F:106:VAL:HG22	3:F:416:GLU:HG3	1.64	0.80
3:L:106:VAL:HG22	3:L:416:GLU:HG3	1.64	0.80
3:B:106:VAL:HG22	3:B:416:GLU:HG3	1.64	0.80
6:u:66:ILE:HG12	6:u:80:VAL:HG23	1.64	0.80
5:m:44:LEU:HD12	5:m:49:ASP:HB3	1.65	0.79
6:t:66:ILE:HD13	6:t:564:ILE:HD11	1.65	0.79
6:t:333:GLY:HA3	6:t:382:ILE:HD11	1.63	0.79
6:u:66:ILE:HD13	6:u:564:ILE:HD11	1.65	0.78
5:a:44:LEU:HD12	5:a:49:ASP:HB3	1.64	0.78
6:s:66:ILE:HD13	6:s:564:ILE:HD11	1.63	0.78
6:v:66:ILE:HD13	6:v:564:ILE:HD11	1.65	0.78
5:i:8:VAL:HG23	5:i:76:ARG:HB3	1.66	0.78
6:u:535:LEU:HG	6:u:538:GLN:HE21	1.47	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:x:15:ILE:HG12	6:x:30:ARG:HA	1.66	0.78
2:8:32:VAL:H	1:Y:68:THR:HG22	1.49	0.77
3:H:106:VAL:HG22	3:H:416:GLU:HG3	1.64	0.77
6:w:66:ILE:HD13	6:w:564:ILE:HD11	1.65	0.77
5:o:92:SER:HB3	6:t:640:ILE:HB	1.66	0.77
5:j:44:LEU:HD12	5:j:49:ASP:HB3	1.66	0.77
5:p:44:LEU:HD12	5:p:49:ASP:HB3	1.65	0.77
6:x:66:ILE:HD13	6:x:564:ILE:HD11	1.66	0.77
6:x:415:ILE:HB	6:x:422:PHE:HB2	1.67	0.77
5:d:44:LEU:HD12	5:d:49:ASP:HB3	1.64	0.77
5:g:44:LEU:HD12	5:g:49:ASP:HB3	1.67	0.76
6:x:46:PRO:HB2	6:x:576:ILE:HG23	1.67	0.76
5:b:111:GLU:HB2	5:c:81:THR:HG21	1.65	0.76
6:v:368:LEU:HD12	6:v:391:ILE:HD11	1.68	0.76
1:1:68:THR:HG22	2:AD:32:VAL:H	1.51	0.76
5:f:8:VAL:HG23	5:f:76:ARG:HB3	1.67	0.76
6:s:368:LEU:HD12	6:s:391:ILE:HD11	1.67	0.76
2:AA:43:THR:HG22	2:AA:45:GLY:H	1.49	0.76
2:8:43:THR:HG22	2:8:45:GLY:H	1.50	0.75
6:v:282:VAL:HA	6:v:293:GLU:HA	1.68	0.75
6:s:282:VAL:HA	6:s:293:GLU:HA	1.68	0.75
6:t:503:ILE:HG12	6:t:514:VAL:HG22	1.68	0.75
5:o:8:VAL:HG23	5:o:76:ARG:HB3	1.66	0.75
5:f:92:SER:HB3	6:w:640:ILE:HB	1.68	0.75
1:1:61:GLU:OE2	6:x:157:ARG:NH1	2.20	0.75
2:4:29:VAL:HG22	1:y:119:ARG:HD3	1.69	0.75
3:D:317:GLY:O	4:S:182:ASN:ND2	2.20	0.75
4:O:6:MET:HE1	4:P:6:MET:HB2	1.68	0.75
6:u:46:PRO:HB2	6:u:576:ILE:HG23	1.66	0.75
6:u:368:LEU:HD12	6:u:391:ILE:HD11	1.69	0.75
4:R:5:ASP:HB3	5:p:29:ARG:HG3	1.69	0.74
6:s:431:THR:O	6:s:433:LYS:N	2.20	0.74
6:w:503:ILE:HG12	6:w:514:VAL:HG22	1.68	0.74
2:AD:43:THR:HG22	2:AD:45:GLY:H	1.52	0.74
2:8:33:GLU:HG3	6:w:290:VAL:HG11	1.67	0.74
6:u:588:GLU:OE2	6:u:597:LYS:NZ	2.20	0.74
2:AB:32:VAL:H	1:z:68:THR:HG22	1.53	0.74
6:t:588:GLU:OE2	6:t:597:LYS:NZ	2.21	0.74
6:v:46:PRO:HB2	6:v:576:ILE:HG23	1.69	0.74
6:s:588:GLU:OE2	6:s:597:LYS:NZ	2.21	0.74
6:w:282:VAL:HA	6:w:293:GLU:HA	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:61:GLU:OE2	6:v:157:ARG:NH1	2.20	0.74
6:t:720:VAL:HG22	6:t:766:VAL:HG12	1.70	0.74
6:u:385:LEU:HD11	6:u:433:LYS:HE3	1.69	0.74
3:B:317:GLY:O	4:Q:182:ASN:ND2	2.21	0.73
6:v:50:PHE:HB2	6:v:596:MET:HG3	1.70	0.73
2:9:43:THR:HG22	2:9:45:GLY:H	1.52	0.73
2:AB:43:THR:HG22	2:AB:45:GLY:H	1.51	0.73
4:N:99:ARG:NH2	4:N:111:ASP:OD1	2.20	0.73
5:c:8:VAL:HG23	5:c:76:ARG:HB3	1.69	0.73
4:S:67:ILE:HD11	4:S:121:ILE:HD12	1.70	0.73
4:T:99:ARG:NH2	4:T:111:ASP:OD1	2.21	0.73
6:w:720:VAL:HG22	6:w:766:VAL:HG12	1.70	0.73
6:v:588:GLU:OE2	6:v:597:LYS:NZ	2.21	0.73
6:w:102:ASN:HD22	6:w:324:TRP:H	1.37	0.73
6:x:588:GLU:OE2	6:x:597:LYS:NZ	2.22	0.73
6:v:68:LEU:HD12	6:v:78:TYR:HE1	1.52	0.73
6:u:15:ILE:HG12	6:u:30:ARG:HA	1.70	0.73
6:v:111:ASN:OD1	6:v:114:ASN:ND2	2.22	0.72
2:AC:43:THR:HG22	2:AC:45:GLY:H	1.53	0.72
6:x:368:LEU:HD12	6:x:391:ILE:HD11	1.69	0.72
3:I:88:ILE:HB	3:I:420:GLU:HG3	1.70	0.72
5:j:18:ARG:HH22	5:j:63:ALA:HB2	1.55	0.72
5:q:114:ARG:NH1	5:r:112:GLU:OE1	2.22	0.72
6:s:599:ARG:HD2	6:s:666:MET:HE1	1.68	0.72
6:x:590:TYR:HB3	6:x:746:LEU:HD21	1.71	0.72
3:L:317:GLY:O	4:O:182:ASN:ND2	2.22	0.72
6:v:503:ILE:HG12	6:v:514:VAL:HG22	1.72	0.72
4:X:182:ASN:HB3	4:X:186:GLY:H	1.55	0.72
5:f:13:LEU:HD21	5:f:65:GLY:HA2	1.71	0.72
5:p:10:THR:HG22	5:p:74:GLU:HG2	1.71	0.72
6:s:111:ASN:OD1	6:s:114:ASN:ND2	2.22	0.72
6:x:31:GLN:HB3	6:x:677:TYR:HD1	1.55	0.72
3:F:317:GLY:O	4:U:182:ASN:ND2	2.22	0.72
6:u:128:VAL:HG22	6:u:309:PRO:HB3	1.70	0.71
6:u:415:ILE:HB	6:u:422:PHE:HB2	1.70	0.71
6:x:123:ASP:OD1	6:x:314:ARG:NH1	2.23	0.71
3:K:17:TYR:HE1	3:K:21:LYS:HZ3	1.37	0.71
6:s:46:PRO:HB2	6:s:576:ILE:HG23	1.69	0.71
2:2:29:VAL:HG22	1:Y:119:ARG:HD3	1.71	0.71
3:C:88:ILE:HB	3:C:420:GLU:HG3	1.70	0.71
4:S:128:ASP:OD2	4:S:129:GLU:N	2.22	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:t:66:ILE:HG12	6:t:80:VAL:HG23	1.71	0.71
6:x:49:VAL:HG12	6:x:597:LYS:HE3	1.73	0.71
3:H:353:SER:HA	3:H:358:LEU:HD23	1.72	0.71
5:c:92:SER:HB3	6:x:640:ILE:HB	1.73	0.71
6:t:31:GLN:HB3	6:t:677:TYR:HD1	1.56	0.71
6:t:413:LEU:HB3	6:t:424:LEU:HB3	1.72	0.71
6:s:503:ILE:HG12	6:s:514:VAL:HG22	1.72	0.71
3:F:48:ASP:HB2	3:F:52:THR:HG22	1.72	0.71
6:v:66:ILE:HG12	6:v:80:VAL:HG23	1.72	0.71
6:w:31:GLN:HB3	6:w:677:TYR:HD1	1.56	0.71
3:G:375:ARG:HA	3:G:430:LEU:HD21	1.70	0.70
5:n:47:ASN:O	5:n:51:ARG:NH2	2.24	0.70
6:w:588:GLU:OE2	6:w:597:LYS:NZ	2.22	0.70
6:x:391:ILE:HG22	6:x:432:SER:HB3	1.72	0.70
5:f:95:ARG:HE	6:w:639:LYS:HD2	1.56	0.70
5:n:111:GLU:HB2	5:o:81:THR:HG21	1.72	0.70
6:s:121:VAL:HG22	6:s:122:ALA:H	1.56	0.70
6:s:415:ILE:HB	6:s:422:PHE:HB2	1.74	0.70
6:x:44:LYS:NZ	6:x:770:SER:OG	2.25	0.70
6:u:182:GLY:O	1:y:46:ASN:ND2	2.24	0.70
6:u:282:VAL:HA	6:u:293:GLU:HA	1.72	0.70
6:u:599:ARG:HE	6:u:666:MET:HE1	1.57	0.70
6:x:282:VAL:HA	6:x:293:GLU:HA	1.72	0.70
6:w:66:ILE:HG12	6:w:80:VAL:HG23	1.72	0.70
3:G:145:LEU:HD22	3:G:158:MET:HE2	1.74	0.70
5:r:7:THR:HG21	5:r:112:GLU:HA	1.73	0.70
6:t:356:ASN:ND2	1:z:86:GLY:O	2.24	0.70
6:t:282:VAL:HA	6:t:293:GLU:HA	1.72	0.70
5:k:9:LEU:HD21	5:k:23:PRO:HD2	1.74	0.69
5:n:96:ALA:O	5:n:100:ASN:ND2	2.25	0.69
6:t:594:MET:HB3	6:t:670:GLY:HA3	1.73	0.69
6:u:49:VAL:HG12	6:u:597:LYS:HE3	1.73	0.69
3:I:129:THR:HG23	3:I:160:LEU:HD22	1.75	0.69
3:K:170:ARG:HB2	3:K:263:SER:HA	1.74	0.69
6:x:128:VAL:HG22	6:x:309:PRO:HB3	1.72	0.69
5:i:7:THR:HG21	5:i:112:GLU:HA	1.74	0.69
6:s:52:ASN:HB3	6:s:93:GLY:HA3	1.74	0.69
6:t:46:PRO:HB2	6:t:576:ILE:HG23	1.73	0.69
1:0:94:SER:HB2	6:x:392:ASP:H	1.57	0.69
5:r:8:VAL:HG23	5:r:76:ARG:HB3	1.73	0.69
3:L:48:ASP:HB2	3:L:52:THR:HG22	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:w:16:SER:O	6:w:23:ARG:NH2	2.26	0.69
1:0:119:ARG:HD3	2:6:29:VAL:HG22	1.73	0.69
3:L:142:ASN:HB2	3:L:163:LEU:HD12	1.74	0.69
1:Z:46:ASN:ND2	6:v:182:GLY:O	2.25	0.69
5:m:55:ARG:HG3	5:m:56:THR:HG23	1.73	0.69
3:L:245:PRO:HB2	3:L:248:ALA:HB3	1.75	0.69
6:v:128:VAL:HG22	6:v:309:PRO:HB3	1.74	0.69
4:M:67:ILE:HD11	4:M:121:ILE:HD12	1.75	0.68
6:s:468:THR:HG23	6:s:498:ASN:HA	1.75	0.68
6:t:44:LYS:NZ	6:t:770:SER:OG	2.25	0.68
3:E:170:ARG:HB2	3:E:263:SER:HA	1.74	0.68
3:K:56:THR:HG23	4:X:196:ARG:HH21	1.57	0.68
5:f:7:THR:HG21	5:f:112:GLU:HA	1.74	0.68
6:s:128:VAL:HG22	6:s:309:PRO:HB3	1.75	0.68
5:r:13:LEU:HD21	5:r:65:GLY:HA3	1.74	0.68
6:t:392:ASP:H	1:y:94:SER:HB2	1.59	0.68
3:B:142:ASN:HB2	3:B:163:LEU:HD12	1.73	0.68
3:D:142:ASN:HB2	3:D:163:LEU:HD12	1.74	0.68
5:b:9:LEU:HD21	5:b:23:PRO:HD2	1.74	0.68
6:w:355:ARG:HH21	6:w:411:GLU:HA	1.58	0.68
3:B:74:MET:HE1	3:B:127:ARG:HG2	1.76	0.68
6:u:123:ASP:OD1	6:u:314:ARG:NH1	2.27	0.68
6:w:468:THR:HG23	6:w:498:ASN:HA	1.76	0.68
1:l:129:LEU:HD21	6:w:163:ARG:HH21	1.59	0.68
5:b:37:ILE:HB	5:b:72:THR:HB	1.76	0.68
5:g:10:THR:HG22	5:g:74:GLU:HG2	1.76	0.68
5:k:37:ILE:HB	5:k:72:THR:HB	1.75	0.68
5:l:8:VAL:HG23	5:l:76:ARG:HB3	1.74	0.68
6:t:49:VAL:HG12	6:t:597:LYS:HE3	1.76	0.68
6:t:468:THR:HG23	6:t:498:ASN:HA	1.76	0.67
6:u:47:PRO:HB3	6:u:593:PHE:HA	1.77	0.67
6:u:337:THR:HG22	6:u:382:ILE:HD12	1.76	0.67
6:v:355:ARG:HH21	6:v:411:GLU:HA	1.59	0.67
3:D:58:TRP:HB2	3:D:280:GLU:HG3	1.75	0.67
4:S:149:ARG:O	6:s:790:ARG:NH2	2.27	0.67
4:V:112:ARG:HD2	5:g:18:ARG:HH22	1.59	0.67
5:n:101:VAL:HA	5:n:104:ILE:HG22	1.75	0.67
6:s:703:LEU:HA	6:s:785:GLY:HA2	1.76	0.67
6:v:102:ASN:HD22	6:v:324:TRP:H	1.42	0.67
5:e:37:ILE:HB	5:e:72:THR:HB	1.76	0.67
6:s:56:ASP:OD1	6:s:57:ASN:N	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:t:126:PHE:HD1	6:t:325:LEU:HD11	1.59	0.67
4:O:147:ASN:ND2	4:O:157:GLU:OE2	2.25	0.67
5:n:60:LEU:HD12	5:n:64:TRP:HB3	1.76	0.67
6:x:56:ASP:OD1	6:x:57:ASN:N	2.28	0.67
2:AD:58:ARG:HB2	6:x:314:ARG:HH21	1.60	0.67
6:t:16:SER:O	6:t:23:ARG:NH2	2.26	0.67
6:t:415:ILE:HB	6:t:422:PHE:HB2	1.75	0.67
6:w:128:VAL:HG22	6:w:309:PRO:HB3	1.75	0.67
6:x:337:THR:HG22	6:x:382:ILE:HD12	1.77	0.67
3:B:82:THR:HA	3:B:118:MET:HE3	1.75	0.67
3:F:255:ARG:HH21	3:F:258:ARG:HD2	1.60	0.67
4:M:147:ASN:ND2	4:M:157:GLU:OE2	2.24	0.67
5:i:92:SER:HB3	6:v:640:ILE:HB	1.75	0.67
6:u:56:ASP:OD1	6:u:57:ASN:N	2.27	0.67
6:u:468:THR:HG23	6:u:498:ASN:HA	1.75	0.67
5:n:114:ARG:NH1	5:o:112:GLU:OE1	2.28	0.67
5:o:7:THR:HG21	5:o:112:GLU:HA	1.76	0.67
6:t:121:VAL:HG12	6:t:122:ALA:H	1.60	0.67
6:t:182:GLY:O	1:z:46:ASN:ND2	2.27	0.67
1:O:97:ARG:NH2	6:x:381:SER:O	2.28	0.66
4:U:52:ARG:NH1	4:V:132:GLU:OE1	2.28	0.66
4:W:49:LYS:HE2	4:W:149:ARG:HH22	1.60	0.66
5:l:92:SER:HB3	6:u:640:ILE:HB	1.75	0.66
2:9:32:VAL:H	1:Z:68:THR:HG22	1.59	0.66
3:G:170:ARG:HB2	3:G:263:SER:HA	1.76	0.66
3:K:58:TRP:HB2	3:K:280:GLU:HG3	1.76	0.66
5:a:10:THR:HG22	5:a:74:GLU:HG2	1.77	0.66
5:h:114:ARG:NH1	5:i:112:GLU:OE1	2.27	0.66
5:r:92:SER:HB3	6:s:640:ILE:HB	1.77	0.66
6:s:16:SER:O	6:s:23:ARG:NH2	2.28	0.66
6:w:56:ASP:OD1	6:w:57:ASN:N	2.28	0.66
3:G:129:THR:HG23	3:G:160:LEU:HD22	1.77	0.66
3:I:37:TYR:O	3:I:59:GLN:NE2	2.28	0.66
3:I:291:MET:HE2	4:V:193:LEU:HB3	1.78	0.66
3:J:317:GLY:O	4:M:182:ASN:ND2	2.29	0.66
6:t:128:VAL:HG22	6:t:309:PRO:HB3	1.75	0.66
1:l:46:ASN:ND2	6:x:182:GLY:O	2.27	0.66
3:F:142:ASN:HB2	3:F:163:LEU:HD12	1.77	0.66
5:e:9:LEU:HD21	5:e:23:PRO:HD2	1.78	0.66
5:p:36:LEU:HD23	5:p:44:LEU:HD21	1.78	0.66
3:A:213:VAL:HG12	3:A:232:VAL:HG12	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:305:ILE:HD12	3:F:323:ARG:HE	1.60	0.66
6:v:52:ASN:HB3	6:v:93:GLY:HA3	1.77	0.66
3:L:305:ILE:HD12	3:L:323:ARG:HE	1.61	0.66
4:S:52:ARG:NH1	4:T:132:GLU:OE1	2.29	0.66
6:v:56:ASP:OD1	6:v:57:ASN:N	2.27	0.66
6:x:16:SER:O	6:x:23:ARG:NH2	2.29	0.66
3:C:129:THR:HG23	3:C:160:LEU:HD22	1.78	0.66
1:Z:90:LEU:HG	6:u:393:VAL:HB	1.78	0.66
6:u:472:ARG:NH2	6:u:486:GLU:OE2	2.28	0.66
6:v:468:THR:HG23	6:v:498:ASN:HA	1.77	0.66
6:w:415:ILE:HB	6:w:422:PHE:HB2	1.76	0.66
6:x:413:LEU:HB3	6:x:424:LEU:HB3	1.78	0.66
3:C:170:ARG:HB2	3:C:263:SER:HA	1.77	0.66
3:J:255:ARG:HH21	3:J:258:ARG:HD2	1.61	0.66
6:u:121:VAL:HG12	6:u:122:ALA:H	1.61	0.66
3:I:357:MET:HE1	3:I:380:GLU:HB3	1.78	0.66
6:t:550:GLN:OE1	6:t:566:ARG:NH2	2.29	0.66
6:w:472:ARG:NH1	6:w:530:TYR:OH	2.28	0.66
2:9:36:GLY:O	1:Z:82:ARG:NH2	2.29	0.66
3:K:213:VAL:HG12	3:K:232:VAL:HG12	1.78	0.66
5:q:9:LEU:HD21	5:q:23:PRO:HD2	1.78	0.66
3:H:317:GLY:O	4:W:182:ASN:ND2	2.28	0.65
4:U:147:ASN:ND2	4:U:157:GLU:OE2	2.29	0.65
5:b:101:VAL:HA	5:b:104:ILE:HG22	1.76	0.65
6:t:56:ASP:OD1	6:t:57:ASN:N	2.28	0.65
1:0:68:THR:HG22	2:AC:32:VAL:H	1.61	0.65
3:J:142:ASN:HB2	3:J:163:LEU:HD12	1.78	0.65
5:m:10:THR:HG22	5:m:74:GLU:HG2	1.78	0.65
6:w:46:PRO:HB2	6:w:576:ILE:HG23	1.76	0.65
6:x:472:ARG:NH2	6:x:486:GLU:OE2	2.29	0.65
1:0:46:ASN:ND2	6:s:182:GLY:O	2.29	0.65
3:I:168:VAL:HG23	3:I:179:MET:HB3	1.78	0.65
3:H:142:ASN:HB2	3:H:163:LEU:HD12	1.79	0.65
4:R:151:PHE:HA	6:s:704:ARG:HD3	1.79	0.65
5:d:36:LEU:HD23	5:d:44:LEU:HD21	1.77	0.65
6:u:257:LEU:HD21	6:u:267:VAL:HG11	1.76	0.65
5:l:7:THR:HG21	5:l:112:GLU:HA	1.77	0.65
2:AD:21:GLU:OE2	6:w:163:ARG:NH1	2.28	0.65
3:I:170:ARG:HB2	3:I:263:SER:HA	1.77	0.65
5:e:114:ARG:NH1	5:f:112:GLU:OE1	2.28	0.65
6:t:722:ASN:OD1	6:t:723:GLN:N	2.28	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:u:720:VAL:HG22	6:u:766:VAL:HG22	1.78	0.65
6:w:123:ASP:OD1	6:w:314:ARG:NH1	2.30	0.65
3:A:190:LEU:HD11	3:A:211:ILE:HD11	1.78	0.65
3:I:68:ASN:HD22	3:I:358:LEU:HD23	1.62	0.65
4:S:147:ASN:ND2	4:S:157:GLU:OE2	2.25	0.65
5:p:22:ILE:HG22	5:p:75:LEU:HD23	1.77	0.65
3:E:230:GLU:H	3:E:240:SER:HB2	1.62	0.65
5:a:36:LEU:HD23	5:a:44:LEU:HD21	1.79	0.65
5:r:29:ARG:HD2	6:s:610:ASP:HA	1.77	0.65
6:s:396:SER:HB2	1:z:91:GLU:HG3	1.79	0.65
6:s:645:GLN:HE21	6:s:649:GLY:HA2	1.62	0.65
6:v:121:VAL:HG22	6:v:122:ALA:H	1.60	0.65
6:x:468:THR:HG23	6:x:498:ASN:HA	1.78	0.65
3:B:353:SER:HA	3:B:358:LEU:HD23	1.78	0.65
6:s:522:LYS:HD2	6:s:542:HIS:CD2	2.32	0.65
6:v:150:GLN:HG3	6:v:224:ALA:HB3	1.78	0.65
6:v:337:THR:HG22	6:v:382:ILE:HD12	1.78	0.65
6:w:719:TYR:OH	6:w:728:LYS:NZ	2.30	0.65
6:x:332:CYS:SG	6:x:338:ASN:ND2	2.70	0.65
4:Q:6:MET:HE1	4:R:6:MET:HB2	1.79	0.64
3:A:170:ARG:HB2	3:A:263:SER:HA	1.77	0.64
3:D:401:VAL:HG21	3:D:426:ILE:HG21	1.79	0.64
4:O:52:ARG:NH1	4:P:132:GLU:OE1	2.30	0.64
4:Q:67:ILE:HD11	4:Q:121:ILE:HD12	1.79	0.64
5:a:22:ILE:HG22	5:a:75:LEU:HD23	1.79	0.64
6:u:645:GLN:HE21	6:u:649:GLY:HA2	1.61	0.64
6:x:121:VAL:HG12	6:x:122:ALA:H	1.61	0.64
1:l:86:GLY:O	6:x:356:ASN:ND2	2.29	0.64
3:A:317:GLY:O	4:P:182:ASN:ND2	2.31	0.64
5:g:36:LEU:HD23	5:g:44:LEU:HD21	1.78	0.64
3:F:248:ALA:HB1	3:F:406:LYS:HE3	1.79	0.64
3:J:87:THR:HG1	3:J:425:THR:HG1	1.44	0.64
4:S:2:ARG:NH1	5:m:55:ARG:HH22	1.95	0.64
4:X:52:ARG:NH2	4:X:82:ASP:O	2.31	0.64
5:j:22:ILE:HG22	5:j:75:LEU:HD23	1.78	0.64
6:s:153:LEU:HB2	6:s:247:VAL:HB	1.80	0.64
6:u:150:GLN:HG3	6:u:224:ALA:HB3	1.79	0.64
1:Z:86:GLY:O	6:v:356:ASN:ND2	2.25	0.64
5:j:10:THR:HG22	5:j:74:GLU:HG2	1.80	0.64
6:s:150:GLN:HG3	6:s:224:ALA:HB3	1.79	0.64
6:t:150:GLN:HG3	6:t:224:ALA:HB3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:u:104:SER:C	6:u:106:TYR:H	2.06	0.64
6:x:583:ILE:HG22	6:x:591:ARG:HB2	1.80	0.64
5:c:7:THR:HG21	5:c:112:GLU:HA	1.78	0.64
6:u:332:CYS:SG	6:u:338:ASN:ND2	2.70	0.64
3:H:305:ILE:HD12	3:H:323:ARG:HE	1.63	0.64
6:s:392:ASP:H	1:z:94:SER:HB3	1.63	0.64
6:x:463:PRO:HA	6:x:468:THR:HG22	1.79	0.64
6:t:277:ALA:HB3	1:y:107:ILE:HD12	1.79	0.64
3:C:168:VAL:HG23	3:C:179:MET:HB3	1.79	0.64
6:s:15:ILE:HG12	6:s:30:ARG:HA	1.78	0.64
6:t:47:PRO:HB3	6:t:593:PHE:HA	1.80	0.64
6:w:523:ILE:HD11	6:w:551:VAL:HG11	1.80	0.64
4:O:67:ILE:HD11	4:O:121:ILE:HD12	1.79	0.63
5:n:56:THR:HG23	5:n:57:THR:HG23	1.80	0.63
6:v:47:PRO:HB3	6:v:593:PHE:HA	1.79	0.63
6:v:153:LEU:HB2	6:v:247:VAL:HB	1.80	0.63
3:H:182:ARG:NH2	3:H:214:TYR:OH	2.30	0.63
4:W:67:ILE:HD11	4:W:121:ILE:HD12	1.80	0.63
1:Y:56:ALA:HB2	1:Y:124:ILE:HD11	1.79	0.63
6:s:47:PRO:HB3	6:s:593:PHE:HA	1.80	0.63
6:u:463:PRO:HA	6:u:468:THR:HG22	1.79	0.63
6:w:98:VAL:HG12	6:w:320:PHE:HB2	1.81	0.63
5:j:36:LEU:HD23	5:j:44:LEU:HD21	1.80	0.63
5:o:101:VAL:HA	5:o:104:ILE:HG12	1.80	0.63
6:v:20:ASP:OD1	6:v:23:ARG:NH1	2.32	0.63
6:w:166:ILE:HG12	6:w:176:LYS:HG3	1.79	0.63
2:AA:32:VAL:H	1:y:68:THR:HG22	1.63	0.63
3:B:61:VAL:HG21	3:B:349:GLU:HG2	1.81	0.63
3:D:170:ARG:HB2	3:D:263:SER:HA	1.81	0.63
4:R:52:ARG:NH2	4:R:82:ASP:O	2.31	0.63
1:Y:46:ASN:ND2	6:w:182:GLY:O	2.29	0.63
6:w:426:ALA:HB2	6:w:430:LEU:HD12	1.78	0.63
2:AA:21:GLU:OE1	6:t:163:ARG:NH2	2.30	0.63
5:m:36:LEU:HD23	5:m:44:LEU:HD21	1.80	0.63
6:w:150:GLN:HG3	6:w:224:ALA:HB3	1.80	0.63
1:Y:94:SER:HB2	6:v:392:ASP:H	1.64	0.63
5:f:24:PHE:CE2	5:f:77:ARG:HB2	2.34	0.63
5:r:36:LEU:HD12	5:r:42:LYS:HD3	1.79	0.63
6:t:703:LEU:HA	6:t:785:GLY:HA2	1.80	0.63
6:x:150:GLN:HG3	6:x:224:ALA:HB3	1.79	0.63
3:A:129:THR:HG23	3:A:160:LEU:HD22	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:v:703:LEU:HA	6:v:785:GLY:HA2	1.80	0.63
4:P:112:ARG:HD2	5:p:18:ARG:HH22	1.64	0.63
5:a:5:ILE:HG23	5:a:115:ASP:HB3	1.81	0.63
5:o:24:PHE:CE2	5:o:77:ARG:HB2	2.34	0.63
5:q:34:VAL:HG12	5:q:46:ILE:HG22	1.81	0.63
6:t:166:ILE:HG12	6:t:176:LYS:HG3	1.80	0.63
6:x:722:ASN:OD1	6:x:723:GLN:N	2.31	0.63
5:d:27:LEU:HD21	5:d:104:ILE:HG22	1.80	0.62
5:h:9:LEU:HD21	5:h:23:PRO:HD2	1.80	0.62
5:p:109:VAL:HG21	5:r:107:MET:HE1	1.80	0.62
6:s:463:PRO:HA	6:s:468:THR:HG22	1.81	0.62
6:u:467:PHE:HB3	6:u:494:ASN:HA	1.80	0.62
6:v:15:ILE:HG12	6:v:30:ARG:HA	1.81	0.62
6:t:467:PHE:HB3	6:t:494:ASN:HA	1.81	0.62
6:u:166:ILE:HG12	6:u:176:LYS:HG3	1.80	0.62
3:B:121:ILE:HG23	3:B:126:TYR:HB2	1.80	0.62
3:J:170:ARG:HB2	3:J:263:SER:HA	1.80	0.62
3:J:192:GLU:HG3	3:J:196:LYS:HZ3	1.65	0.62
4:N:52:ARG:NH2	4:N:82:ASP:O	2.31	0.62
6:u:645:GLN:NE2	6:u:646:PRO:O	2.32	0.62
3:F:321:THR:HG21	4:U:173:GLU:HG3	1.81	0.62
3:K:230:GLU:H	3:K:240:SER:HB2	1.65	0.62
4:T:52:ARG:NH2	4:T:82:ASP:O	2.31	0.62
6:x:166:ILE:HG12	6:x:176:LYS:HG3	1.80	0.62
4:Q:149:ARG:O	6:x:790:ARG:NH2	2.32	0.62
5:i:5:ILE:HD12	5:i:24:PHE:HA	1.81	0.62
6:u:426:ALA:HB2	6:u:430:LEU:HD12	1.79	0.62
2:4:16:GLN:NE2	1:y:80:SER:O	2.32	0.62
3:D:108:GLU:HG2	3:D:112:MET:HE1	1.81	0.62
5:q:84:ARG:NH2	5:q:87:ASP:OD1	2.32	0.62
6:t:699:GLY:HA2	6:t:790:ARG:H	1.64	0.62
6:x:720:VAL:HG22	6:x:766:VAL:HG22	1.80	0.62
3:H:248:ALA:HB1	3:H:406:LYS:HE3	1.82	0.62
5:g:22:ILE:HG22	5:g:75:LEU:HD13	1.82	0.62
6:w:47:PRO:HB3	6:w:593:PHE:HA	1.81	0.62
3:G:230:GLU:H	3:G:240:SER:HB2	1.64	0.62
3:K:317:GLY:O	4:N:182:ASN:ND2	2.33	0.62
1:Y:85:ILE:HD11	1:Y:98:ILE:HD11	1.82	0.62
5:o:104:ILE:O	5:o:108:HIS:ND1	2.32	0.62
6:u:16:SER:O	6:u:23:ARG:NH2	2.30	0.62
6:w:328:SER:OG	6:w:376:ASN:ND2	2.21	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:17:TYR:HE2	3:E:21:LYS:HZ1	1.45	0.62
4:U:67:ILE:HD11	4:U:121:ILE:HD12	1.80	0.62
5:r:5:ILE:HD12	5:r:24:PHE:HA	1.80	0.62
5:q:60:LEU:HD12	5:q:64:TRP:HB2	1.82	0.62
5:r:29:ARG:HH12	5:r:52:PHE:HB2	1.63	0.62
6:u:148:PRO:O	6:u:249:HIS:ND1	2.33	0.62
6:x:148:PRO:O	6:x:249:HIS:ND1	2.32	0.62
3:G:42:LEU:HD23	3:G:139:VAL:HG11	1.82	0.61
3:K:288:LYS:HE3	4:X:184:LEU:HD13	1.82	0.61
1:Z:94:SER:HB3	6:u:392:ASP:H	1.64	0.61
6:w:355:ARG:HD2	6:w:430:LEU:HB2	1.81	0.61
4:M:3:SER:HB3	4:M:6:MET:HG2	1.81	0.61
5:i:104:ILE:O	5:i:108:HIS:ND1	2.33	0.61
6:x:645:GLN:HE21	6:x:649:GLY:HA2	1.64	0.61
6:x:699:GLY:HA2	6:x:790:ARG:H	1.64	0.61
3:A:398:LEU:HD21	3:A:402:ARG:HH21	1.64	0.61
4:W:149:ARG:O	6:u:790:ARG:NH2	2.33	0.61
1:Y:87:GLU:HG3	6:w:429:THR:HG23	1.82	0.61
1:Y:129:LEU:HD21	6:v:163:ARG:NH1	2.15	0.61
5:e:56:THR:HG23	5:e:57:THR:HG23	1.80	0.61
6:v:522:LYS:HD2	6:v:542:HIS:CD2	2.34	0.61
6:x:681:LYS:NZ	6:x:765:THR:HG22	2.15	0.61
3:I:118:MET:HA	3:I:121:ILE:HG22	1.82	0.61
5:k:56:THR:HG23	5:k:57:THR:HG23	1.82	0.61
6:t:31:GLN:HE21	6:t:541:SER:HB3	1.65	0.61
6:w:703:LEU:HA	6:w:785:GLY:HA2	1.81	0.61
1:0:80:SER:O	2:6:16:GLN:NE2	2.33	0.61
6:s:600:TYR:CZ	6:s:621:ILE:HG22	2.35	0.61
6:t:381:SER:O	1:y:97:ARG:NH2	2.28	0.61
6:t:463:PRO:HA	6:t:468:THR:HG22	1.82	0.61
6:u:11:LEU:HA	6:u:26:ASP:HB2	1.83	0.61
6:w:49:VAL:HG23	6:w:597:LYS:HB2	1.81	0.61
6:w:467:PHE:HB3	6:w:494:ASN:HA	1.81	0.61
6:x:523:ILE:HD11	6:x:551:VAL:HG11	1.82	0.61
3:L:277:ARG:HD2	4:X:196:ARG:HG3	1.83	0.61
4:S:2:ARG:CZ	5:m:55:ARG:HH12	2.13	0.61
5:f:101:VAL:HA	5:f:104:ILE:HG12	1.81	0.61
5:l:101:VAL:HA	5:l:104:ILE:HG12	1.83	0.61
5:p:104:ILE:HG12	5:p:108:HIS:CE1	2.35	0.61
6:s:126:PHE:HD2	6:s:325:LEU:HD11	1.65	0.61
6:t:121:VAL:HG21	6:t:126:PHE:HE2	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:t:600:TYR:CZ	6:t:621:ILE:HG22	2.35	0.61
6:u:99:ARG:O	6:u:101:PRO:HD3	2.01	0.61
6:v:463:PRO:HA	6:v:468:THR:HG22	1.82	0.61
6:v:618:ILE:HA	6:v:621:ILE:HG12	1.82	0.61
6:w:564:ILE:HG22	6:w:573:LEU:HG	1.83	0.61
3:B:194:ILE:HG23	3:B:232:VAL:HG11	1.82	0.61
4:N:155:GLU:OE2	6:v:790:ARG:NH1	2.33	0.61
6:t:57:ASN:ND2	6:t:567:ASN:O	2.32	0.61
6:t:523:ILE:HD11	6:t:551:VAL:HG11	1.82	0.61
6:v:49:VAL:HG21	6:v:585:LEU:HD21	1.83	0.61
6:w:31:GLN:HE21	6:w:541:SER:HB3	1.64	0.61
1:0:85:ILE:HD11	1:0:98:ILE:HD11	1.82	0.61
3:G:213:VAL:HG12	3:G:232:VAL:HG12	1.83	0.61
5:r:104:ILE:O	5:r:108:HIS:ND1	2.32	0.61
6:u:126:PHE:HD2	6:u:325:LEU:HD11	1.65	0.61
6:w:722:ASN:OD1	6:w:723:GLN:N	2.28	0.61
6:x:153:LEU:HB2	6:x:247:VAL:HB	1.82	0.61
3:C:291:MET:HE2	4:P:193:LEU:HB3	1.83	0.61
3:F:87:THR:HG1	3:F:425:THR:HG1	1.48	0.61
5:a:104:ILE:O	5:a:108:HIS:ND1	2.29	0.61
5:k:51:ARG:HH21	5:k:53:ALA:HB2	1.66	0.61
5:l:5:ILE:HD12	5:l:24:PHE:HA	1.82	0.61
6:s:104:SER:C	6:s:106:TYR:H	2.08	0.61
6:v:53:THR:HG21	6:v:623:GLY:HA3	1.82	0.61
6:w:600:TYR:CZ	6:w:621:ILE:HG22	2.36	0.61
3:H:170:ARG:HB2	3:H:263:SER:HA	1.83	0.61
6:v:126:PHE:HD2	6:v:325:LEU:HD11	1.65	0.61
6:w:57:ASN:ND2	6:w:567:ASN:O	2.32	0.61
6:x:257:LEU:HD21	6:x:267:VAL:HG11	1.82	0.61
3:B:142:ASN:HD21	3:B:265:GLY:H	1.49	0.60
3:F:170:ARG:HB2	3:F:263:SER:HA	1.83	0.60
5:b:50:TYR:HE1	5:b:60:LEU:HD13	1.66	0.60
5:c:5:ILE:HD12	5:c:24:PHE:HA	1.81	0.60
5:h:111:GLU:HB2	5:i:81:THR:HG21	1.83	0.60
5:n:37:ILE:HB	5:n:72:THR:HB	1.82	0.60
6:v:467:PHE:HB3	6:v:494:ASN:HA	1.83	0.60
3:F:121:ILE:HG23	3:F:126:TYR:HB2	1.81	0.60
3:L:414:ILE:HD13	3:L:422:VAL:HG13	1.82	0.60
5:a:18:ARG:HH22	5:a:63:ALA:HB2	1.66	0.60
6:s:681:LYS:NZ	6:s:765:THR:HG22	2.16	0.60
3:J:61:VAL:HG21	3:J:349:GLU:HG2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:74:MET:HE1	3:J:127:ARG:HG2	1.82	0.60
3:L:69:LEU:HD22	3:L:385:LEU:HD21	1.83	0.60
6:s:148:PRO:O	6:s:249:HIS:ND1	2.35	0.60
6:v:600:TYR:CZ	6:v:621:ILE:HG22	2.36	0.60
3:D:195:ARG:NH2	3:E:221:GLU:O	2.34	0.60
3:F:137:LEU:HB3	3:F:256:MET:HE2	1.83	0.60
3:J:317:GLY:N	3:K:296:VAL:O	2.34	0.60
4:X:87:LEU:HD22	4:X:119:VAL:HG21	1.82	0.60
6:u:355:ARG:HD2	6:u:430:LEU:HB2	1.83	0.60
6:v:218:GLY:H	6:v:260:ASN:HD22	1.48	0.60
3:A:305:ILE:HD12	3:A:323:ARG:HE	1.66	0.60
3:E:317:GLY:O	4:T:182:ASN:ND2	2.35	0.60
3:F:176:VAL:HG11	3:F:179:MET:HE2	1.82	0.60
3:F:414:ILE:HD13	3:F:422:VAL:HG13	1.83	0.60
6:s:60:LEU:HD22	6:s:80:VAL:HG21	1.83	0.60
6:w:67:HIS:NE2	6:w:120:THR:OG1	2.32	0.60
1:y:91:GLU:HG2	1:y:92:GLY:H	1.66	0.60
3:A:175:ASN:HD21	3:L:189:ALA:HB1	1.66	0.60
3:B:24:ARG:HA	3:B:27:TYR:HD2	1.66	0.60
3:J:195:ARG:NH2	3:K:221:GLU:O	2.34	0.60
6:s:618:ILE:HG22	6:s:656:LEU:HD22	1.83	0.60
6:s:618:ILE:HA	6:s:621:ILE:HG12	1.83	0.60
6:u:52:ASN:HB2	6:u:93:GLY:HA3	1.82	0.60
2:AB:58:ARG:HB2	6:t:314:ARG:HH21	1.67	0.60
3:H:321:THR:HG21	4:W:173:GLU:HG3	1.84	0.60
3:K:68:ASN:HD22	3:K:358:LEU:HD23	1.65	0.60
6:t:248:THR:HG23	6:t:250:TYR:H	1.67	0.60
6:w:120:THR:HA	6:w:125:THR:HG22	1.84	0.60
4:T:85:LEU:HA	4:U:132:GLU:HG3	1.82	0.60
5:n:22:ILE:HG22	5:n:75:LEU:HD13	1.84	0.60
6:t:104:SER:C	6:t:106:TYR:H	2.07	0.60
6:u:50:PHE:HB2	6:u:596:MET:HG3	1.83	0.60
6:v:148:PRO:O	6:v:249:HIS:ND1	2.35	0.60
6:x:126:PHE:HD2	6:x:325:LEU:HD11	1.66	0.60
6:x:467:PHE:HA	6:x:496:ILE:O	2.01	0.60
3:L:170:ARG:HB2	3:L:263:SER:HA	1.84	0.60
4:O:49:LYS:HE2	4:O:149:ARG:HH22	1.66	0.60
6:t:594:MET:HE3	6:t:597:LYS:HG2	1.84	0.60
6:t:123:ASP:OD1	6:t:314:ARG:NH1	2.35	0.60
5:m:22:ILE:HG22	5:m:75:LEU:HD13	1.83	0.59
6:t:184:GLN:HB3	6:t:187:HIS:CD2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:u:600:TYR:CZ	6:u:621:ILE:HG22	2.37	0.59
6:x:68:LEU:HD12	6:x:78:TYR:HE1	1.67	0.59
3:A:16:VAL:HG21	3:A:216:HIS:CE1	2.38	0.59
4:R:14:LEU:HD13	4:R:32:LEU:HG	1.84	0.59
4:V:182:ASN:HB3	4:V:186:GLY:H	1.66	0.59
6:v:720:VAL:HG22	6:v:766:VAL:HG12	1.83	0.59
3:E:413:GLN:HG3	3:F:93:ALA:HB3	1.85	0.59
3:J:189:ALA:HB1	3:K:175:ASN:HD21	1.67	0.59
4:U:49:LYS:HE2	4:U:149:ARG:HH22	1.66	0.59
5:l:104:ILE:O	5:l:108:HIS:ND1	2.33	0.59
6:s:705:ARG:HA	6:s:757:VAL:H	1.67	0.59
6:u:405:TYR:OH	6:u:447:ASP:O	2.20	0.59
6:v:90:ASP:OD1	6:v:91:LEU:N	2.35	0.59
6:w:302:GLN:OE1	6:w:305:TRP:NE1	2.35	0.59
1:0:91:GLU:HG2	1:0:92:GLY:H	1.66	0.59
4:V:52:ARG:NH2	4:V:82:ASP:O	2.34	0.59
5:o:13:LEU:HD21	5:o:65:GLY:HA2	1.83	0.59
6:s:90:ASP:OD1	6:s:91:LEU:N	2.36	0.59
6:t:90:ASP:OD1	6:t:91:LEU:N	2.35	0.59
6:t:681:LYS:NZ	6:t:765:THR:HG22	2.18	0.59
6:w:126:PHE:CD1	6:w:325:LEU:HD11	2.37	0.59
6:w:355:ARG:NH2	6:w:411:GLU:HA	2.17	0.59
6:w:681:LYS:NZ	6:w:765:THR:HG22	2.18	0.59
3:B:255:ARG:HB3	3:B:265:GLY:HA3	1.85	0.59
3:E:300:VAL:HG11	3:E:308:PRO:HG3	1.84	0.59
3:G:68:ASN:ND2	3:G:357:MET:O	2.35	0.59
5:q:96:ALA:O	5:q:100:ASN:ND2	2.36	0.59
6:t:53:THR:HG22	6:t:572:PHE:HD1	1.67	0.59
6:t:124:TYR:CG	6:t:313:VAL:HG22	2.37	0.59
6:w:699:GLY:HA2	6:w:790:ARG:H	1.67	0.59
5:d:22:ILE:HG22	5:d:75:LEU:HD13	1.83	0.59
5:o:5:ILE:HD12	5:o:24:PHE:HA	1.85	0.59
6:s:49:VAL:HG21	6:s:585:LEU:HD21	1.84	0.59
6:s:590:TYR:HB3	6:s:746:LEU:HD21	1.84	0.59
6:u:248:THR:HG23	6:u:250:TYR:H	1.68	0.59
6:v:20:ASP:HA	6:v:23:ARG:HD2	1.83	0.59
6:v:352:PHE:HE2	6:v:354:PHE:HB2	1.67	0.59
6:x:405:TYR:OH	6:x:447:ASP:O	2.20	0.59
2:2:17:ILE:HD13	6:v:433:LYS:HZ2	1.67	0.59
3:B:87:THR:HG1	3:B:425:THR:HG1	1.44	0.59
3:E:128:VAL:HG12	3:F:390:SER:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:401:VAL:HG21	3:J:426:ILE:HG21	1.85	0.59
4:U:51:ASN:OD1	4:U:55:GLN:NE2	2.36	0.59
6:s:467:PHE:HB3	6:s:494:ASN:HA	1.85	0.59
6:s:720:VAL:HG22	6:s:766:VAL:HG12	1.83	0.59
6:t:25:PRO:HD3	6:t:693:THR:HG21	1.84	0.59
6:u:413:LEU:HB3	6:u:424:LEU:HB3	1.84	0.59
6:x:53:THR:HG22	6:x:572:PHE:HD1	1.67	0.59
6:x:600:TYR:CZ	6:x:621:ILE:HG22	2.37	0.59
2:8:32:VAL:O	1:Y:71:ASN:ND2	2.35	0.59
3:C:305:ILE:HD12	3:C:323:ARG:HE	1.68	0.59
3:I:323:ARG:NH1	3:I:325:GLU:OE2	2.34	0.59
4:V:144:ARG:NH1	4:V:157:GLU:OE2	2.35	0.59
5:k:50:TYR:HE1	5:k:60:LEU:HD13	1.67	0.59
5:l:18:ARG:NH1	5:l:60:LEU:O	2.33	0.59
6:s:352:PHE:HE2	6:s:354:PHE:HB2	1.66	0.59
6:t:162:GLY:HA2	6:t:179:ILE:O	2.02	0.59
2:8:54:LEU:HD23	6:w:121:VAL:HG11	1.84	0.59
3:H:213:VAL:HG12	3:H:232:VAL:HG12	1.83	0.59
1:Y:91:GLU:HG2	1:Y:92:GLY:H	1.67	0.59
6:u:57:ASN:ND2	6:u:567:ASN:O	2.32	0.59
6:u:523:ILE:HD11	6:u:551:VAL:HG11	1.83	0.59
6:v:431:THR:O	6:v:433:LYS:N	2.36	0.59
6:v:645:GLN:HE21	6:v:649:GLY:HA2	1.68	0.59
3:G:305:ILE:HD12	3:G:323:ARG:HE	1.67	0.59
3:J:196:LYS:O	3:J:200:GLY:N	2.34	0.59
4:O:51:ASN:OD1	4:O:55:GLN:NE2	2.36	0.59
5:g:96:ALA:O	5:g:100:ASN:ND2	2.36	0.59
6:s:617:HIS:CD2	6:s:619:PRO:HD2	2.38	0.59
6:t:67:HIS:NE2	6:t:120:THR:OG1	2.34	0.59
6:t:305:TRP:CD1	6:t:327:TRP:HD1	2.21	0.59
6:u:53:THR:HG21	6:u:623:GLY:HA3	1.85	0.59
6:v:705:ARG:HA	6:v:757:VAL:H	1.67	0.59
2:2:16:GLN:NE2	1:Y:80:SER:O	2.36	0.58
3:F:189:ALA:HB1	3:G:175:ASN:HD21	1.68	0.58
3:H:24:ARG:HA	3:H:27:TYR:HD2	1.67	0.58
3:H:121:ILE:HG23	3:H:126:TYR:HB2	1.85	0.58
3:L:228:ARG:NH1	3:L:244:TYR:OH	2.35	0.58
4:P:144:ARG:NH1	4:P:157:GLU:OE2	2.36	0.58
5:b:56:THR:HG23	5:b:57:THR:HG23	1.84	0.58
5:c:67:ALA:C	5:c:69:GLY:H	2.11	0.58
5:e:27:LEU:HD13	5:e:85:LEU:HD12	1.83	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:i:101:VAL:HA	5:i:104:ILE:HG12	1.85	0.58
6:v:248:THR:HG23	6:v:250:TYR:H	1.68	0.58
5:b:51:ARG:HH21	5:b:53:ALA:HB2	1.67	0.58
5:q:111:GLU:HB2	5:r:81:THR:HG21	1.84	0.58
3:L:254:ILE:HD13	3:L:396:LEU:HD12	1.85	0.58
6:t:148:PRO:O	6:t:249:HIS:ND1	2.37	0.58
6:u:699:GLY:HA2	6:u:790:ARG:H	1.68	0.58
6:w:156:VAL:HG23	6:w:193:ALA:HB1	1.85	0.58
3:G:300:VAL:HG11	3:G:308:PRO:HG3	1.85	0.58
5:r:101:VAL:HA	5:r:104:ILE:HG12	1.85	0.58
6:s:355:ARG:HD2	6:s:430:LEU:HB2	1.83	0.58
6:t:328:SER:OG	6:t:376:ASN:ND2	2.23	0.58
6:v:699:GLY:HA2	6:v:790:ARG:H	1.67	0.58
6:x:98:VAL:HG12	6:x:320:PHE:HB2	1.86	0.58
3:L:248:ALA:HB1	3:L:406:LYS:HE3	1.85	0.58
4:W:72:ASP:OD1	5:g:10:THR:N	2.32	0.58
6:s:426:ALA:HB2	6:s:430:LEU:HD12	1.85	0.58
6:v:472:ARG:NH2	6:v:486:GLU:OE2	2.34	0.58
6:v:523:ILE:HD11	6:v:551:VAL:HG11	1.84	0.58
6:v:590:TYR:HB3	6:v:746:LEU:HD21	1.85	0.58
6:w:90:ASP:OD1	6:w:91:LEU:N	2.37	0.58
6:w:121:VAL:HG21	6:w:126:PHE:HE2	1.68	0.58
6:x:31:GLN:HE21	6:x:541:SER:HB3	1.67	0.58
1:0:107:ILE:HD12	6:x:277:ALA:HB3	1.84	0.58
3:C:300:VAL:HG21	4:Q:176:MET:SD	2.43	0.58
3:H:87:THR:HG1	3:H:425:THR:HG1	1.48	0.58
4:S:2:ARG:NH2	4:S:6:MET:HB3	2.18	0.58
4:U:149:ARG:O	6:t:790:ARG:NH2	2.37	0.58
6:u:4:ILE:HD13	6:u:684:ILE:HD12	1.84	0.58
6:w:25:PRO:HD3	6:w:693:THR:HG21	1.84	0.58
6:x:617:HIS:HD2	6:x:620:THR:HG23	1.69	0.58
3:C:191:PRO:HD2	3:C:194:ILE:HD12	1.86	0.58
3:C:413:GLN:HG3	3:D:93:ALA:HB3	1.85	0.58
3:E:144:LEU:HD21	3:E:251:TYR:HD2	1.68	0.58
3:I:128:VAL:HG12	3:J:390:SER:HB2	1.86	0.58
5:c:101:VAL:HA	5:c:104:ILE:HG12	1.84	0.58
6:w:248:THR:HG23	6:w:250:TYR:H	1.67	0.58
6:w:552:LEU:HD11	6:w:566:ARG:HG2	1.86	0.58
3:H:64:ARG:HG2	3:H:358:LEU:HD11	1.86	0.58
3:K:413:GLN:HG3	3:L:93:ALA:HB3	1.85	0.58
4:V:151:PHE:HA	6:u:704:ARG:HD2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:t:120:THR:HA	6:t:125:THR:HG22	1.86	0.58
6:u:182:GLY:HA2	6:u:187:HIS:HB3	1.86	0.58
6:w:148:PRO:O	6:w:249:HIS:ND1	2.36	0.58
6:x:99:ARG:O	6:x:101:PRO:HD3	2.03	0.58
3:H:194:ILE:HG23	3:H:232:VAL:HG11	1.86	0.58
3:L:82:THR:HA	3:L:118:MET:HE3	1.85	0.58
5:f:36:LEU:HD23	5:f:70:TYR:CD2	2.39	0.58
5:j:24:PHE:HE2	5:j:32:VAL:HG22	1.68	0.58
5:q:37:ILE:HB	5:q:72:THR:HB	1.86	0.58
6:s:4:ILE:HD13	6:s:684:ILE:HD12	1.86	0.58
6:s:618:ILE:HG12	6:s:619:PRO:HD3	1.84	0.58
6:v:11:LEU:HA	6:v:26:ASP:HB2	1.86	0.58
6:w:4:ILE:HD13	6:w:684:ILE:HD12	1.86	0.58
2:AB:36:GLY:O	1:z:82:ARG:NH2	2.34	0.58
3:F:254:ILE:HD13	3:F:396:LEU:HD12	1.86	0.58
3:I:279:LEU:HB2	3:I:348:ILE:HG21	1.86	0.58
5:e:111:GLU:HB2	5:f:81:THR:HG21	1.86	0.58
6:u:305:TRP:CD1	6:u:327:TRP:HD1	2.22	0.58
6:u:467:PHE:HA	6:u:496:ILE:O	2.03	0.58
6:u:722:ASN:OD1	6:u:723:GLN:N	2.32	0.58
6:v:617:HIS:CD2	6:v:619:PRO:HD2	2.38	0.58
6:w:184:GLN:HB3	6:w:187:HIS:CD2	2.39	0.58
3:A:227:LEU:HG	3:A:243:THR:HG22	1.86	0.57
3:A:413:GLN:HG3	3:B:93:ALA:HB3	1.86	0.57
3:J:74:MET:HE2	3:J:131:PHE:HB2	1.86	0.57
5:f:93:ILE:HG23	6:w:638:GLY:HA3	1.86	0.57
6:s:123:ASP:OD1	6:s:314:ARG:NH1	2.37	0.57
6:t:98:VAL:HG12	6:t:320:PHE:HB2	1.85	0.57
6:v:681:LYS:NZ	6:v:765:THR:HG22	2.18	0.57
6:w:370:ARG:NE	6:w:376:ASN:OD1	2.37	0.57
6:x:681:LYS:HZ1	6:x:765:THR:HG22	1.69	0.57
3:J:88:ILE:HG12	3:J:106:VAL:HG11	1.85	0.57
4:P:46:ILE:HD11	4:P:150:PHE:HE2	1.68	0.57
5:b:63:ALA:O	5:b:64:TRP:C	2.45	0.57
6:u:99:ARG:NH1	6:u:321:ASP:OD2	2.37	0.57
3:A:300:VAL:HG11	3:A:308:PRO:HG3	1.85	0.57
3:D:122:GLU:HA	3:E:431:GLU:OE2	2.04	0.57
3:E:129:THR:HG23	3:E:160:LEU:HD22	1.86	0.57
3:E:299:LEU:N	3:E:328:SER:O	2.36	0.57
3:G:16:VAL:HG21	3:G:216:HIS:CE1	2.40	0.57
4:M:6:MET:HE1	4:N:6:MET:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:24:ILE:O	6:x:790:ARG:NH2	2.37	0.57
5:i:25:GLU:O	5:i:77:ARG:NH1	2.37	0.57
6:u:90:ASP:OD1	6:u:91:LEU:N	2.37	0.57
3:A:144:LEU:HD21	3:A:251:TYR:HD2	1.69	0.57
3:C:66:LEU:HD11	3:C:139:VAL:HB	1.87	0.57
3:D:189:ALA:HB1	3:E:175:ASN:HD21	1.69	0.57
6:s:248:THR:HG23	6:s:250:TYR:H	1.68	0.57
6:t:370:ARG:NE	6:t:376:ASN:OD1	2.37	0.57
1:0:52:LEU:HB2	1:0:128:GLN:HE21	1.69	0.57
3:J:192:GLU:HG3	3:J:196:LYS:NZ	2.18	0.57
5:c:13:LEU:HD21	5:c:65:GLY:HA2	1.87	0.57
5:c:24:PHE:CE1	5:c:77:ARG:HB2	2.40	0.57
6:u:25:PRO:HD3	6:u:693:THR:HG21	1.85	0.57
6:x:25:PRO:HD3	6:x:693:THR:HG21	1.84	0.57
3:B:80:MET:HA	3:B:127:ARG:HH22	1.70	0.57
3:D:76:ALA:HA	3:D:374:ILE:HG23	1.87	0.57
3:D:321:THR:HG21	4:S:173:GLU:HG3	1.87	0.57
6:w:431:THR:O	6:w:433:LYS:N	2.37	0.57
6:x:99:ARG:NH1	6:x:321:ASP:OD2	2.37	0.57
2:AB:33:GLU:HG3	6:t:290:VAL:HG11	1.87	0.57
3:B:245:PRO:HG2	3:B:248:ALA:HB3	1.87	0.57
3:E:58:TRP:HB2	3:E:280:GLU:HG3	1.86	0.57
4:O:149:ARG:O	6:w:790:ARG:NH2	2.37	0.57
4:Q:6:MET:HE1	4:R:6:MET:CB	2.35	0.57
5:g:104:ILE:HG12	5:g:108:HIS:CE1	2.40	0.57
6:s:277:ALA:HB3	1:z:107:ILE:HD12	1.87	0.57
6:u:98:VAL:HG12	6:u:320:PHE:HB2	1.87	0.57
6:u:617:HIS:HD2	6:u:620:THR:HG23	1.68	0.57
6:v:4:ILE:HD13	6:v:684:ILE:HD12	1.86	0.57
6:v:618:ILE:HG12	6:v:619:PRO:HD3	1.86	0.57
6:w:305:TRP:CD1	6:w:327:TRP:HD1	2.22	0.57
6:x:4:ILE:HD13	6:x:684:ILE:HD12	1.87	0.57
6:x:305:TRP:CD1	6:x:327:TRP:HD1	2.22	0.57
3:A:128:VAL:HG12	3:B:390:SER:HB2	1.86	0.57
4:T:26:GLU:HG3	4:T:27:PRO:HD2	1.87	0.57
5:h:22:ILE:HG22	5:h:75:LEU:HD13	1.87	0.57
5:q:56:THR:HG23	5:q:57:THR:HG23	1.86	0.57
6:w:413:LEU:HB3	6:w:424:LEU:HB3	1.86	0.57
6:x:57:ASN:ND2	6:x:567:ASN:O	2.32	0.57
3:D:74:MET:HE1	3:D:127:ARG:HG2	1.86	0.57
3:I:245:PRO:HG2	3:I:248:ALA:HB3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:m:18:ARG:HH22	5:m:63:ALA:HB2	1.68	0.57
6:s:614:THR:N	6:s:658:LEU:O	2.38	0.57
6:t:368:LEU:HD12	6:t:391:ILE:HD11	1.86	0.57
6:w:463:PRO:HA	6:w:468:THR:HG22	1.87	0.57
3:C:305:ILE:HG21	3:D:302:PRO:HG3	1.87	0.57
3:D:317:GLY:N	3:E:296:VAL:O	2.36	0.57
3:G:38:THR:HG21	3:G:269:ILE:HD13	1.87	0.57
3:I:191:PRO:HD2	3:I:194:ILE:HD12	1.86	0.57
3:K:300:VAL:HG11	3:K:308:PRO:HG3	1.87	0.57
4:P:6:MET:HE3	5:a:27:LEU:HD13	1.87	0.57
4:P:151:PHE:HA	6:x:704:ARG:HD2	1.86	0.57
5:k:111:GLU:HB2	5:l:81:THR:HG21	1.87	0.57
6:t:11:LEU:HA	6:t:26:ASP:HB2	1.86	0.57
6:x:90:ASP:OD1	6:x:91:LEU:N	2.37	0.57
6:x:248:THR:HG23	6:x:250:TYR:H	1.68	0.57
1:0:88:SER:O	1:0:89:MET:HG3	2.05	0.56
1:1:90:LEU:HG	6:w:393:VAL:HB	1.87	0.56
2:AC:54:LEU:HD13	6:s:121:VAL:HG11	1.87	0.56
3:B:170:ARG:HB2	3:B:263:SER:HA	1.87	0.56
3:I:413:GLN:HG3	3:J:93:ALA:HB3	1.87	0.56
4:N:85:LEU:HA	4:O:132:GLU:HG3	1.87	0.56
5:b:114:ARG:NH1	5:c:112:GLU:OE2	2.37	0.56
5:c:104:ILE:O	5:c:108:HIS:ND1	2.35	0.56
6:t:355:ARG:NH1	6:t:428:GLY:O	2.37	0.56
2:AD:58:ARG:HB2	6:x:314:ARG:NH2	2.19	0.56
3:B:90:GLU:HA	3:B:420:GLU:HG2	1.86	0.56
3:C:16:VAL:HG21	3:C:216:HIS:CE1	2.40	0.56
3:G:191:PRO:HD2	3:G:194:ILE:HD12	1.87	0.56
3:G:269:ILE:O	3:G:273:LEU:N	2.38	0.56
4:M:45:ARG:NH2	5:e:90:ASP:O	2.38	0.56
5:f:5:ILE:HD12	5:f:24:PHE:HA	1.86	0.56
5:q:22:ILE:HG22	5:q:75:LEU:HD13	1.87	0.56
6:t:102:ASN:HB3	6:t:324:TRP:CE3	2.40	0.56
6:w:586:GLN:O	6:w:668:TYR:OH	2.22	0.56
2:3:20:VAL:HG12	2:3:22:PRO:HD3	1.87	0.56
3:H:90:GLU:HA	3:H:420:GLU:HG2	1.87	0.56
3:I:16:VAL:HG21	3:I:216:HIS:CE1	2.41	0.56
3:K:38:THR:HG21	3:K:269:ILE:HD13	1.86	0.56
5:c:29:ARG:NH2	6:x:609:ASP:OD2	2.39	0.56
5:d:93:ILE:HD11	6:w:742:ARG:HH21	1.70	0.56
5:f:104:ILE:O	5:f:108:HIS:ND1	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:56:THR:HG23	5:h:57:THR:HG23	1.87	0.56
5:l:24:PHE:CE2	5:l:77:ARG:HB2	2.41	0.56
5:o:36:LEU:HD23	5:o:70:TYR:CD2	2.40	0.56
6:t:314:ARG:HB2	6:t:320:PHE:CE1	2.41	0.56
6:u:302:GLN:OE1	6:u:305:TRP:NE1	2.38	0.56
6:v:302:GLN:OE1	6:v:305:TRP:NE1	2.39	0.56
6:w:430:LEU:HD11	6:w:435:VAL:HG23	1.86	0.56
5:d:9:LEU:HD21	5:d:23:PRO:HD2	1.88	0.56
6:t:594:MET:O	6:t:671:PHE:N	2.39	0.56
6:t:715:THR:HG22	6:t:732:ALA:HA	1.87	0.56
3:K:245:PRO:HG2	3:K:248:ALA:HB3	1.87	0.56
5:q:50:TYR:HE1	5:q:60:LEU:HD13	1.69	0.56
6:s:53:THR:HG21	6:s:623:GLY:HA3	1.88	0.56
6:t:564:ILE:HG22	6:t:573:LEU:HG	1.88	0.56
6:w:352:PHE:HE2	6:w:354:PHE:HB2	1.70	0.56
3:A:300:VAL:HG21	4:O:176:MET:SD	2.46	0.56
2:AB:33:GLU:HA	1:z:71:ASN:ND2	2.21	0.56
3:K:128:VAL:HG12	3:L:390:SER:HB2	1.88	0.56
5:j:93:ILE:HD11	6:u:742:ARG:HH21	1.71	0.56
6:t:614:THR:O	6:t:658:LEU:N	2.39	0.56
6:u:113:ARG:HD3	6:u:501:PHE:HB2	1.88	0.56
6:w:11:LEU:HA	6:w:26:ASP:HB2	1.86	0.56
6:x:302:GLN:OE1	6:x:305:TRP:NE1	2.38	0.56
3:I:213:VAL:HG12	3:I:232:VAL:HG12	1.88	0.56
6:t:184:GLN:HB3	6:t:187:HIS:HD2	1.70	0.56
6:v:54:LEU:HD12	6:v:571:THR:HG22	1.86	0.56
6:x:240:ALA:HB3	6:x:242:GLN:HE22	1.70	0.56
1:O:71:ASN:ND2	2:AC:33:GLU:HA	2.21	0.56
2:6:20:VAL:HG12	2:6:22:PRO:HD3	1.88	0.56
3:C:38:THR:HG21	3:C:269:ILE:HD13	1.88	0.56
3:F:82:THR:HA	3:F:118:MET:HE3	1.87	0.56
3:I:311:LEU:HD23	3:I:320:VAL:HG11	1.88	0.56
4:O:6:MET:HE1	4:P:6:MET:CB	2.34	0.56
4:Q:84:TYR:OH	5:p:21:ASN:ND2	2.39	0.56
4:W:6:MET:SD	4:X:6:MET:HE3	2.46	0.56
6:s:302:GLN:OE1	6:s:305:TRP:NE1	2.38	0.56
6:t:113:ARG:HD3	6:t:501:PHE:HB2	1.88	0.56
6:t:302:GLN:OE1	6:t:305:TRP:NE1	2.39	0.56
6:u:632:THR:HG23	6:u:640:ILE:HG23	1.88	0.56
6:w:113:ARG:HD3	6:w:501:PHE:HB2	1.88	0.56
2:9:54:LEU:HD13	6:v:121:VAL:HG11	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:256:MET:HG2	3:A:257:VAL:HG23	1.88	0.56
3:G:413:GLN:HG3	3:H:93:ALA:HB3	1.88	0.56
3:J:137:LEU:HB3	3:J:256:MET:HE3	1.87	0.56
4:O:182:ASN:HB3	4:O:186:GLY:H	1.71	0.56
4:S:55:GLN:HG2	4:S:130:MET:HE1	1.88	0.56
5:n:97:TYR:O	5:n:101:VAL:HG22	2.05	0.56
6:s:25:PRO:HD3	6:s:693:THR:HG21	1.88	0.56
6:w:53:THR:HG22	6:w:572:PHE:HD1	1.71	0.56
6:x:113:ARG:HD3	6:x:501:PHE:HB2	1.88	0.56
6:x:599:ARG:HG3	6:x:668:TYR:CE2	2.40	0.56
3:A:413:GLN:HG2	3:B:94:LYS:HB2	1.87	0.56
3:E:38:THR:HG21	3:E:269:ILE:HD13	1.88	0.56
3:E:245:PRO:HG2	3:E:248:ALA:HB3	1.88	0.56
3:G:396:LEU:O	3:G:400:LEU:HD23	2.06	0.56
3:J:82:THR:HA	3:J:118:MET:HE3	1.87	0.56
4:M:149:ARG:O	6:v:790:ARG:NH2	2.39	0.56
4:V:6:MET:HE3	5:j:27:LEU:HD13	1.88	0.56
5:e:22:ILE:HG22	5:e:75:LEU:HD13	1.86	0.56
6:s:413:LEU:HB3	6:s:424:LEU:HB3	1.88	0.56
6:w:126:PHE:HD1	6:w:325:LEU:HD11	1.71	0.56
2:5:20:VAL:HG12	2:5:22:PRO:HD3	1.88	0.55
2:5:40:GLU:N	1:z:141:GLU:OE2	2.25	0.55
3:A:245:PRO:HG2	3:A:248:ALA:HB3	1.88	0.55
3:C:245:PRO:HG2	3:C:248:ALA:HB3	1.89	0.55
3:E:372:GLU:HA	3:E:375:ARG:HH12	1.70	0.55
3:F:357:MET:SD	3:F:384:THR:OG1	2.64	0.55
3:H:317:GLY:N	3:I:296:VAL:O	2.36	0.55
6:t:156:VAL:HG23	6:t:193:ALA:HB1	1.87	0.55
6:t:467:PHE:HA	6:t:496:ILE:O	2.06	0.55
6:t:567:ASN:HB2	6:t:572:PHE:HE2	1.71	0.55
6:u:431:THR:O	6:u:433:LYS:N	2.38	0.55
1:l:97:ARG:NH2	6:w:381:SER:O	2.35	0.55
3:B:108:GLU:HG2	3:B:112:MET:HE1	1.88	0.55
3:B:142:ASN:HD21	3:B:264:TYR:HB3	1.70	0.55
3:C:144:LEU:HD21	3:C:251:TYR:HD2	1.71	0.55
3:I:274:GLY:O	4:U:196:ARG:NE	2.37	0.55
3:I:315:GLN:N	3:I:318:ASP:OD2	2.38	0.55
3:L:68:ASN:ND2	3:L:357:MET:O	2.38	0.55
4:O:55:GLN:O	4:O:62:ASN:ND2	2.40	0.55
4:S:80:TYR:HE1	4:S:87:LEU:HB2	1.70	0.55
5:m:9:LEU:HD21	5:m:23:PRO:HD2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:375:ARG:HA	3:A:430:LEU:HD21	1.88	0.55
2:AD:33:GLU:HG3	6:x:290:VAL:HG11	1.88	0.55
3:B:126:TYR:CD1	3:B:158:MET:HE3	2.42	0.55
6:u:552:LEU:HD11	6:u:566:ARG:HG2	1.87	0.55
6:v:332:CYS:SG	6:v:338:ASN:ND2	2.80	0.55
6:w:472:ARG:NH2	6:w:486:GLU:OE2	2.33	0.55
6:w:495:TYR:OH	6:w:542:HIS:ND1	2.31	0.55
3:C:311:LEU:HD23	3:C:320:VAL:HG11	1.88	0.55
3:L:137:LEU:HB3	3:L:256:MET:HE3	1.87	0.55
5:j:5:ILE:HG23	5:j:115:ASP:HB3	1.89	0.55
5:o:34:VAL:HG22	5:o:75:LEU:HG	1.89	0.55
6:s:699:GLY:HA2	6:s:790:ARG:H	1.72	0.55
6:t:240:ALA:HB3	6:t:242:GLN:HE22	1.71	0.55
6:t:586:GLN:O	6:t:668:TYR:OH	2.22	0.55
6:u:240:ALA:HB3	6:u:242:GLN:HE22	1.70	0.55
6:w:197:ALA:HA	6:w:220:ILE:HD11	1.89	0.55
6:x:67:HIS:NE2	6:x:120:THR:OG1	2.33	0.55
3:A:121:ILE:HD11	3:A:404:LEU:HD22	1.87	0.55
3:B:182:ARG:NH2	3:B:214:TYR:OH	2.34	0.55
3:K:92:GLU:HG3	3:K:96:LEU:HB2	1.89	0.55
5:a:24:PHE:HE2	5:a:32:VAL:HG22	1.69	0.55
6:s:162:GLY:C	6:s:163:ARG:HD2	2.32	0.55
6:u:703:LEU:HA	6:u:785:GLY:HA2	1.89	0.55
6:v:162:GLY:HA2	6:v:179:ILE:O	2.06	0.55
6:v:618:ILE:HG22	6:v:656:LEU:HD22	1.89	0.55
6:w:599:ARG:HG3	6:w:668:TYR:CE1	2.42	0.55
3:C:201:GLN:NE2	3:C:235:MET:SD	2.69	0.55
3:C:287:VAL:O	3:C:291:MET:HG2	2.07	0.55
3:F:245:PRO:HG2	3:F:248:ALA:HB3	1.89	0.55
3:I:190:LEU:HD11	3:I:211:ILE:HD11	1.87	0.55
5:h:104:ILE:HG13	5:i:84:ARG:NH2	2.22	0.55
6:s:54:LEU:HD12	6:s:571:THR:HG22	1.89	0.55
6:s:162:GLY:HA2	6:s:179:ILE:O	2.06	0.55
6:t:197:ALA:HA	6:t:220:ILE:HD11	1.89	0.55
6:u:391:ILE:HG22	6:u:432:SER:HB3	1.87	0.55
6:v:467:PHE:HA	6:v:496:ILE:O	2.07	0.55
3:A:68:ASN:HD22	3:A:358:LEU:HD23	1.71	0.55
3:F:228:ARG:NH1	3:F:244:TYR:OH	2.38	0.55
3:L:24:ARG:HA	3:L:27:TYR:HD2	1.72	0.55
4:O:65:GLU:HA	4:O:120:ASN:HD22	1.71	0.55
6:s:552:LEU:HD11	6:s:566:ARG:HG2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:x:47:PRO:HB2	6:x:597:LYS:HE2	1.88	0.55
6:x:161:TYR:OH	6:x:188:VAL:HA	2.07	0.55
3:C:68:ASN:HD22	3:C:358:LEU:HD23	1.71	0.55
3:G:144:LEU:HD21	3:G:251:TYR:HD2	1.72	0.55
3:G:413:GLN:HG2	3:H:94:LYS:HB2	1.89	0.55
3:I:38:THR:HG21	3:I:269:ILE:HD13	1.88	0.55
3:I:66:LEU:HD11	3:I:139:VAL:HB	1.88	0.55
4:U:55:GLN:O	4:U:62:ASN:ND2	2.40	0.55
5:h:37:ILE:HB	5:h:72:THR:HB	1.88	0.55
5:h:51:ARG:HH21	5:h:53:ALA:HB2	1.70	0.55
5:r:93:ILE:HG23	6:s:638:GLY:HA3	1.89	0.55
6:v:355:ARG:NH2	6:v:411:GLU:HA	2.22	0.55
3:F:24:ARG:HA	3:F:27:TYR:HD2	1.71	0.55
3:J:245:PRO:HG2	3:J:248:ALA:HB3	1.89	0.55
4:U:10:THR:HG23	4:U:13:GLU:H	1.72	0.55
5:d:10:THR:HG22	5:d:74:GLU:HG2	1.88	0.55
5:o:18:ARG:NH1	5:o:60:LEU:O	2.40	0.55
6:s:504:CYS:O	6:s:513:SER:N	2.33	0.55
6:v:197:ALA:HA	6:v:220:ILE:HD11	1.89	0.55
6:w:47:PRO:HD2	6:w:591:ARG:HH21	1.71	0.55
6:w:594:MET:O	6:w:671:PHE:N	2.40	0.55
6:x:50:PHE:HZ	6:x:53:THR:HG23	1.72	0.55
3:B:190:LEU:HD13	3:B:194:ILE:HG22	1.89	0.55
3:C:190:LEU:HD11	3:C:211:ILE:HD11	1.88	0.55
3:G:299:LEU:N	3:G:328:SER:O	2.39	0.55
4:U:6:MET:CE	4:V:6:MET:HB2	2.37	0.55
4:V:46:ILE:HD11	4:V:150:PHE:HE2	1.70	0.55
6:u:50:PHE:HZ	6:u:53:THR:HG23	1.71	0.55
6:x:263:ASN:HA	6:x:286:ALA:HB2	1.89	0.55
6:x:703:LEU:HA	6:x:785:GLY:HA2	1.88	0.55
3:A:42:LEU:HD23	3:A:139:VAL:HG11	1.88	0.54
3:A:299:LEU:N	3:A:328:SER:O	2.38	0.54
3:C:168:VAL:HG12	3:C:264:TYR:HE1	1.72	0.54
3:C:213:VAL:HG12	3:C:232:VAL:HG12	1.89	0.54
3:D:121:ILE:HG23	3:D:126:TYR:HB2	1.89	0.54
3:G:78:PHE:HE1	3:G:397:GLN:HG2	1.72	0.54
6:s:197:ALA:HA	6:s:220:ILE:HD11	1.90	0.54
6:s:257:LEU:HD21	6:s:267:VAL:HG11	1.89	0.54
6:t:4:ILE:HD13	6:t:684:ILE:HD12	1.87	0.54
6:w:632:THR:HG23	6:w:640:ILE:HG23	1.89	0.54
3:A:115:ARG:HH21	3:B:96:LEU:HD23	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:311:LEU:HD23	3:G:320:VAL:HG11	1.90	0.54
4:M:80:TYR:HE1	4:M:87:LEU:HB2	1.71	0.54
6:s:184:GLN:HB2	6:s:187:HIS:CD2	2.42	0.54
6:u:350:ASP:HB3	6:u:361:LEU:HD13	1.90	0.54
6:w:162:GLY:HA2	6:w:179:ILE:O	2.07	0.54
3:B:189:ALA:HB1	3:C:175:ASN:HD21	1.72	0.54
3:C:16:VAL:HG12	3:C:19:ARG:HH21	1.72	0.54
3:F:192:GLU:HG3	3:F:196:LYS:NZ	2.22	0.54
3:G:155:TYR:CZ	3:G:157:PRO:HG3	2.42	0.54
3:H:185:ILE:HG12	3:I:173:PHE:HB2	1.88	0.54
3:I:396:LEU:O	3:I:400:LEU:HD23	2.06	0.54
4:S:130:MET:HG3	4:S:131:PRO:HD2	1.89	0.54
5:a:104:ILE:HG12	5:a:108:HIS:CE1	2.42	0.54
5:b:34:VAL:HG12	5:b:46:ILE:HG22	1.89	0.54
5:q:37:ILE:HD12	5:q:41:ARG:HG2	1.89	0.54
5:r:21:ASN:HA	5:r:57:THR:HA	1.89	0.54
5:r:25:GLU:O	5:r:77:ARG:NH1	2.37	0.54
6:t:60:LEU:HD23	6:t:87:ARG:HD3	1.88	0.54
6:v:25:PRO:HD3	6:v:693:THR:HG21	1.89	0.54
3:F:317:GLY:N	3:G:296:VAL:O	2.39	0.54
3:I:168:VAL:HG12	3:I:264:TYR:HE1	1.73	0.54
4:S:153:ALA:HB3	4:S:156:VAL:HG12	1.89	0.54
4:W:13:GLU:OE2	4:W:44:ARG:NH2	2.35	0.54
5:d:7:THR:HG22	5:d:77:ARG:NH2	2.22	0.54
5:p:96:ALA:O	5:p:100:ASN:ND2	2.41	0.54
6:s:643:PHE:CE1	6:s:656:LEU:HD12	2.43	0.54
6:t:599:ARG:HG3	6:t:668:TYR:CE1	2.42	0.54
6:t:632:THR:HG23	6:t:640:ILE:HG23	1.89	0.54
6:w:368:LEU:HB2	6:w:391:ILE:HG12	1.88	0.54
6:x:121:VAL:HG21	6:x:353:PHE:CZ	2.43	0.54
3:B:137:LEU:HB3	3:B:256:MET:HE3	1.88	0.54
3:K:129:THR:HG23	3:K:160:LEU:HD22	1.87	0.54
4:Q:42:ASN:O	4:Q:46:ILE:HG12	2.08	0.54
5:c:19:ASP:HA	5:c:59:SER:HA	1.90	0.54
5:e:50:TYR:HE1	5:e:60:LEU:HD13	1.73	0.54
6:s:773:THR:O	6:s:773:THR:HG22	2.06	0.54
6:v:552:LEU:HD11	6:v:566:ARG:HG2	1.89	0.54
6:w:467:PHE:HA	6:w:496:ILE:O	2.07	0.54
6:w:595:ASP:O	6:w:596:MET:HG2	2.08	0.54
6:x:594:MET:O	6:x:671:PHE:N	2.40	0.54
3:C:231:GLU:HA	3:C:236:GLU:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:176:VAL:HG11	3:J:179:MET:HE2	1.90	0.54
4:M:87:LEU:HD12	4:M:121:ILE:HG12	1.90	0.54
4:N:8:VAL:HG11	5:d:104:ILE:HD13	1.90	0.54
4:P:14:LEU:HD13	4:P:32:LEU:HG	1.89	0.54
4:Q:125:ARG:HB3	4:Q:129:GLU:HG2	1.88	0.54
5:j:77:ARG:CZ	5:j:108:HIS:HD2	2.20	0.54
5:k:62:LYS:O	5:k:63:ALA:C	2.50	0.54
5:k:114:ARG:NH1	5:l:112:GLU:OE1	2.39	0.54
6:s:645:GLN:NE2	6:s:646:PRO:O	2.41	0.54
6:v:162:GLY:C	6:v:163:ARG:HD2	2.33	0.54
3:C:92:GLU:HG3	3:C:96:LEU:HB2	1.90	0.54
4:V:60:THR:OG1	4:V:175:GLU:OE2	2.26	0.54
1:Y:97:ARG:NH2	6:v:381:SER:O	2.23	0.54
5:a:93:ILE:HD11	6:x:742:ARG:HH21	1.72	0.54
5:q:50:TYR:CE1	5:q:60:LEU:HD13	2.41	0.54
5:q:97:TYR:O	5:q:101:VAL:HG22	2.07	0.54
6:s:614:THR:O	6:s:658:LEU:N	2.40	0.54
6:t:163:ARG:NH1	1:y:129:LEU:HD21	2.22	0.54
6:t:590:TYR:HB3	6:t:746:LEU:HD21	1.90	0.54
6:u:479:VAL:O	6:u:482:VAL:HG13	2.08	0.54
3:I:16:VAL:HG12	3:I:19:ARG:HH21	1.72	0.54
3:J:108:GLU:HG2	3:J:112:MET:HE1	1.88	0.54
5:j:96:ALA:O	5:j:100:ASN:ND2	2.41	0.54
6:s:715:THR:HG22	6:s:732:ALA:HA	1.89	0.54
6:t:47:PRO:HD2	6:t:591:ARG:HH21	1.71	0.54
6:u:590:TYR:HB3	6:u:746:LEU:HD21	1.90	0.54
6:u:713:SER:HB2	6:u:776:LEU:HA	1.90	0.54
6:x:432:SER:HA	6:x:435:VAL:HG13	1.90	0.54
6:x:552:LEU:HD11	6:x:566:ARG:HG2	1.90	0.54
2:9:20:VAL:HG11	6:v:188:VAL:HG11	1.90	0.54
3:I:287:VAL:O	3:I:291:MET:HG2	2.08	0.54
4:Q:75:SER:HB3	4:Q:77:LEU:HD23	1.90	0.54
4:S:182:ASN:HB3	4:S:186:GLY:H	1.73	0.54
1:Z:129:LEU:HD21	6:u:163:ARG:NH1	2.22	0.54
5:g:25:GLU:O	5:g:77:ARG:NH1	2.41	0.54
6:t:768:ILE:HD13	6:t:778:ILE:HD11	1.90	0.54
6:u:162:GLY:C	6:u:163:ARG:HD2	2.33	0.54
6:u:700:ARG:NH1	6:u:702:GLN:OE1	2.41	0.54
6:x:595:ASP:O	6:x:596:MET:HG2	2.07	0.54
2:5:25:LEU:HD13	1:z:113:VAL:HG23	1.90	0.54
3:B:69:LEU:HD23	3:B:357:MET:HE2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:58:TRP:HA	4:S:196:ARG:HH12	1.72	0.54
4:N:45:ARG:NH1	4:O:19:ASP:OD1	2.40	0.54
4:O:75:SER:HB3	4:O:77:LEU:HD23	1.90	0.54
4:U:65:GLU:HA	4:U:120:ASN:HD22	1.72	0.54
6:v:153:LEU:HD21	6:v:262:PRO:HD3	1.90	0.54
6:v:305:TRP:CD1	6:v:327:TRP:HD1	2.26	0.54
6:w:240:ALA:HB3	6:w:242:GLN:HE22	1.72	0.54
6:x:47:PRO:HD3	6:x:591:ARG:HH12	1.72	0.54
6:x:426:ALA:HB2	6:x:430:LEU:HD12	1.90	0.54
3:D:196:LYS:O	3:D:200:GLY:N	2.33	0.53
3:E:269:ILE:O	3:E:273:LEU:N	2.41	0.53
3:F:68:ASN:ND2	3:F:357:MET:O	2.41	0.53
3:I:24:ARG:NH1	3:I:163:LEU:O	2.40	0.53
5:k:16:SER:OG	5:k:66:PRO:HG2	2.08	0.53
5:p:24:PHE:HE2	5:p:32:VAL:HG22	1.73	0.53
6:s:153:LEU:HD21	6:s:262:PRO:HD3	1.90	0.53
6:s:617:HIS:HD2	6:s:620:THR:HG23	1.72	0.53
6:t:645:GLN:HG2	6:t:646:PRO:O	2.08	0.53
6:v:257:LEU:HD21	6:v:267:VAL:HG11	1.90	0.53
6:x:632:THR:HG23	6:x:640:ILE:HG23	1.89	0.53
3:B:290:SER:HB3	3:C:344:VAL:HG21	1.90	0.53
3:D:192:GLU:HG3	3:D:196:LYS:NZ	2.23	0.53
3:H:189:ALA:HB1	3:I:175:ASN:HD21	1.72	0.53
3:I:237:VAL:HG13	3:I:240:SER:HB3	1.90	0.53
3:J:68:ASN:HD22	3:J:358:LEU:HA	1.74	0.53
4:O:72:ASP:HB3	4:O:75:SER:HB2	1.89	0.53
4:V:94:SER:HB2	4:W:178:TYR:CE1	2.43	0.53
5:g:9:LEU:HD21	5:g:23:PRO:HD2	1.91	0.53
5:i:50:TYR:CD1	5:i:58:ILE:HD11	2.43	0.53
5:r:29:ARG:NH1	5:r:52:PHE:HB2	2.24	0.53
6:s:20:ASP:HA	6:s:23:ARG:HD2	1.91	0.53
6:v:302:GLN:HE22	6:v:329:PRO:HG3	1.73	0.53
6:v:617:HIS:HD2	6:v:620:THR:HG23	1.72	0.53
6:w:184:GLN:HB3	6:w:187:HIS:HD2	1.72	0.53
3:G:245:PRO:HG2	3:G:248:ALA:HB3	1.91	0.53
3:H:108:GLU:HG2	3:H:112:MET:HE1	1.88	0.53
3:H:419:LYS:HA	3:H:422:VAL:HB	1.90	0.53
3:L:19:ARG:HG3	3:L:20:LEU:HD12	1.90	0.53
5:i:24:PHE:CE1	5:i:77:ARG:HB2	2.43	0.53
6:s:240:ALA:HB3	6:s:242:GLN:HE22	1.73	0.53
6:w:121:VAL:HG21	6:w:126:PHE:CE2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:x:645:GLN:NE2	6:x:646:PRO:O	2.41	0.53
3:C:237:VAL:HG13	3:C:240:SER:HB3	1.90	0.53
3:C:323:ARG:NH1	3:C:325:GLU:OE2	2.35	0.53
3:G:78:PHE:CE2	3:G:130:LEU:HD13	2.42	0.53
3:I:231:GLU:HA	3:I:236:GLU:HA	1.89	0.53
4:P:55:GLN:O	4:P:62:ASN:ND2	2.42	0.53
4:Q:64:GLU:OE1	4:Q:123:ARG:NH2	2.41	0.53
4:Q:84:TYR:HD1	4:Q:121:ILE:HG21	1.73	0.53
4:W:153:ALA:HB3	4:W:156:VAL:HG12	1.90	0.53
4:X:37:ASN:HD22	6:v:729:TYR:HE1	1.57	0.53
5:f:34:VAL:HG22	5:f:75:LEU:HG	1.89	0.53
6:s:102:ASN:HB3	6:s:324:TRP:CE3	2.43	0.53
6:s:472:ARG:NH2	6:s:486:GLU:OE2	2.34	0.53
6:t:466:SER:HA	6:t:498:ASN:ND2	2.23	0.53
6:u:121:VAL:HG21	6:u:353:PHE:CZ	2.43	0.53
6:x:50:PHE:O	6:x:51:LEU:HD23	2.08	0.53
3:B:69:LEU:HD22	3:B:385:LEU:HD21	1.90	0.53
3:C:279:LEU:HB2	3:C:348:ILE:HG21	1.91	0.53
3:E:92:GLU:HG3	3:E:96:LEU:HB2	1.90	0.53
3:K:191:PRO:HD2	3:K:194:ILE:HD12	1.91	0.53
4:O:65:GLU:HA	4:O:120:ASN:ND2	2.24	0.53
4:W:128:ASP:OD1	4:W:129:GLU:N	2.35	0.53
5:e:50:TYR:CE1	5:e:60:LEU:HD13	2.43	0.53
5:i:21:ASN:HA	5:i:57:THR:HA	1.90	0.53
5:n:34:VAL:HG12	5:n:46:ILE:HG22	1.91	0.53
6:s:302:GLN:HE22	6:s:329:PRO:HG3	1.74	0.53
6:v:123:ASP:OD1	6:v:314:ARG:NH1	2.41	0.53
6:v:302:GLN:NE2	6:v:329:PRO:HG3	2.23	0.53
6:v:735:ARG:H	6:v:741:LEU:HD12	1.71	0.53
6:w:332:CYS:SG	6:w:338:ASN:ND2	2.82	0.53
6:w:368:LEU:HD12	6:w:391:ILE:HD11	1.89	0.53
6:x:11:LEU:HA	6:x:26:ASP:HB2	1.89	0.53
6:x:69:ILE:HG23	6:x:120:THR:HG21	1.90	0.53
3:D:82:THR:HA	3:D:118:MET:HE3	1.90	0.53
3:F:300:VAL:HG21	3:F:308:PRO:HG3	1.89	0.53
4:P:94:SER:HB2	4:Q:178:TYR:CE1	2.44	0.53
5:h:97:TYR:O	5:h:101:VAL:HG22	2.08	0.53
5:r:50:TYR:CD1	5:r:58:ILE:HD11	2.43	0.53
6:u:69:ILE:HG23	6:u:120:THR:HG21	1.90	0.53
6:v:391:ILE:HG22	6:v:432:SER:HB3	1.90	0.53
6:v:425:THR:O	6:v:436:GLU:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:129:LEU:HD11	6:x:163:ARG:CZ	2.39	0.53
1:1:141:GLU:OE2	2:7:40:GLU:N	2.26	0.53
2:7:20:VAL:HG12	2:7:22:PRO:HD3	1.91	0.53
3:B:13:ALA:HA	3:B:16:VAL:HG12	1.90	0.53
3:F:305:ILE:HG21	3:G:302:PRO:HG3	1.91	0.53
3:L:58:TRP:HA	4:M:196:ARG:HH12	1.73	0.53
4:W:42:ASN:O	4:W:46:ILE:HG12	2.08	0.53
4:W:55:GLN:O	4:W:62:ASN:ND2	2.42	0.53
4:X:112:ARG:HD2	5:d:18:ARG:HH22	1.74	0.53
5:f:63:ALA:O	5:f:64:TRP:C	2.49	0.53
5:m:96:ALA:O	5:m:100:ASN:ND2	2.41	0.53
5:o:11:TYR:OH	5:o:21:ASN:O	2.21	0.53
6:s:305:TRP:CD1	6:s:327:TRP:HD1	2.26	0.53
6:t:350:ASP:HB3	6:t:361:LEU:HD13	1.89	0.53
6:v:72:ASP:OD1	6:v:73:GLU:N	2.41	0.53
3:A:296:VAL:O	3:L:317:GLY:N	2.41	0.53
2:AC:55:LYS:HA	6:s:123:ASP:HB2	1.91	0.53
3:B:321:THR:HG21	4:Q:173:GLU:HG3	1.90	0.53
3:E:191:PRO:HD2	3:E:194:ILE:HD12	1.91	0.53
3:E:317:GLY:N	3:F:296:VAL:O	2.41	0.53
3:F:19:ARG:HG3	3:F:20:LEU:HD12	1.90	0.53
3:K:275:ASP:HA	4:W:196:ARG:HH21	1.73	0.53
3:K:299:LEU:N	3:K:328:SER:O	2.38	0.53
3:K:311:LEU:HD23	3:K:320:VAL:HG11	1.91	0.53
4:V:31:THR:HB	5:k:86:VAL:HG22	1.91	0.53
5:j:18:ARG:HH12	5:j:63:ALA:HA	1.72	0.53
5:n:104:ILE:HG12	5:n:108:HIS:CE1	2.44	0.53
6:s:302:GLN:NE2	6:s:329:PRO:HG3	2.23	0.53
6:t:614:THR:N	6:t:658:LEU:O	2.40	0.53
6:u:60:LEU:HD23	6:u:87:ARG:HD3	1.91	0.53
3:A:191:PRO:HD2	3:A:194:ILE:HD12	1.91	0.53
3:A:305:ILE:HG21	3:B:302:PRO:HG3	1.91	0.53
3:F:277:ARG:HD2	4:R:196:ARG:HG3	1.91	0.53
3:G:363:GLN:HE21	3:G:376:TYR:HD2	1.57	0.53
4:V:49:LYS:HD2	4:W:19:ASP:OD1	2.09	0.53
5:n:18:ARG:HE	5:n:62:LYS:HA	1.74	0.53
6:t:495:TYR:OH	6:t:542:HIS:ND1	2.33	0.53
6:w:370:ARG:HG2	6:w:390:PRO:HD3	1.90	0.53
3:C:275:ASP:HA	4:O:196:ARG:HH21	1.74	0.53
3:H:245:PRO:HG2	3:H:248:ALA:HB3	1.91	0.53
4:M:153:ALA:HB3	4:M:156:VAL:HG12	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:37:ASN:HD22	6:s:729:TYR:HE1	1.57	0.53
5:n:24:PHE:CE2	5:n:77:ARG:HB2	2.45	0.53
6:w:645:GLN:HG2	6:w:646:PRO:O	2.08	0.53
3:B:74:MET:HG2	3:B:134:LEU:HD22	1.90	0.52
3:C:37:TYR:O	3:C:59:GLN:NE2	2.43	0.52
3:I:92:GLU:HG3	3:I:96:LEU:HB2	1.91	0.52
4:P:45:ARG:NH1	4:Q:19:ASP:OD1	2.42	0.52
5:b:50:TYR:CE1	5:b:60:LEU:HD13	2.44	0.52
5:p:81:THR:HG23	5:r:107:MET:SD	2.49	0.52
6:s:523:ILE:HD11	6:s:551:VAL:HG11	1.90	0.52
6:t:50:PHE:HZ	6:t:53:THR:HG23	1.73	0.52
6:u:197:ALA:HA	6:u:220:ILE:HD11	1.91	0.52
6:v:426:ALA:HB2	6:v:430:LEU:HD12	1.92	0.52
6:w:590:TYR:HB3	6:w:746:LEU:HD21	1.91	0.52
6:x:153:LEU:HD21	6:x:262:PRO:HD3	1.91	0.52
1:l:113:VAL:HG23	2:7:25:LEU:HD13	1.91	0.52
3:I:255:ARG:HB3	3:I:265:GLY:HA3	1.91	0.52
3:K:144:LEU:HD21	3:K:251:TYR:HD2	1.74	0.52
4:S:87:LEU:HD12	4:S:121:ILE:HG12	1.91	0.52
4:U:42:ASN:O	4:U:46:ILE:HG12	2.09	0.52
4:W:75:SER:HB3	4:W:77:LEU:HD23	1.91	0.52
4:W:84:TYR:OH	5:g:21:ASN:ND2	2.43	0.52
5:q:24:PHE:CE2	5:q:77:ARG:HB2	2.44	0.52
5:r:24:PHE:CE1	5:r:77:ARG:HB2	2.43	0.52
6:u:466:SER:HA	6:u:498:ASN:ND2	2.23	0.52
6:w:369:SER:HB3	6:w:377:PHE:HE1	1.74	0.52
6:w:466:SER:HA	6:w:498:ASN:ND2	2.23	0.52
2:8:33:GLU:HA	1:Y:71:ASN:ND2	2.24	0.52
3:A:279:LEU:HB2	3:A:348:ILE:HG21	1.91	0.52
3:C:107:ASP:OD2	3:C:108:GLU:N	2.43	0.52
3:I:275:ASP:HA	4:U:196:ARG:HH21	1.74	0.52
3:J:58:TRP:HA	4:W:196:ARG:HH12	1.73	0.52
3:J:186:ALA:HA	3:J:210:THR:HA	1.90	0.52
3:K:117:ILE:HG23	3:K:404:LEU:HD23	1.90	0.52
4:O:80:TYR:CD2	4:O:98:ASN:HB2	2.45	0.52
5:b:60:LEU:HD12	5:b:64:TRP:HB2	1.90	0.52
5:f:36:LEU:HB2	5:f:42:LYS:HB3	1.91	0.52
5:h:24:PHE:CE2	5:h:77:ARG:HB2	2.43	0.52
5:k:24:PHE:CE2	5:k:77:ARG:HB2	2.45	0.52
5:n:27:LEU:HD13	5:n:85:LEU:HD12	1.92	0.52
5:o:36:LEU:HD13	5:o:44:LEU:HD11	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:r:18:ARG:NH1	5:r:60:LEU:O	2.40	0.52
6:s:277:ALA:HB2	1:z:103:GLU:HG2	1.90	0.52
6:s:632:THR:HG23	6:s:640:ILE:HG23	1.91	0.52
6:u:124:TYR:CG	6:u:313:VAL:HG22	2.44	0.52
6:v:715:THR:HG22	6:v:732:ALA:HA	1.90	0.52
6:w:567:ASN:HB2	6:w:572:PHE:HE2	1.75	0.52
6:x:700:ARG:NH1	6:x:702:GLN:OE1	2.42	0.52
3:B:85:ARG:HB3	3:B:427:SER:HB2	1.91	0.52
3:I:393:SER:O	3:I:397:GLN:N	2.41	0.52
5:a:51:ARG:NH1	5:a:53:ALA:HB2	2.25	0.52
5:k:18:ARG:HE	5:k:62:LYS:HA	1.74	0.52
6:s:467:PHE:HA	6:s:496:ILE:O	2.09	0.52
6:v:16:SER:O	6:v:23:ARG:NH2	2.41	0.52
6:w:60:LEU:HD23	6:w:87:ARG:HD3	1.90	0.52
2:4:20:VAL:HG12	2:4:22:PRO:HD3	1.92	0.52
4:O:42:ASN:O	4:O:46:ILE:HG12	2.09	0.52
4:Q:153:ALA:HB3	4:Q:156:VAL:HG12	1.89	0.52
4:S:55:GLN:O	4:S:62:ASN:ND2	2.42	0.52
4:T:104:TYR:HD1	4:T:111:ASP:HB3	1.74	0.52
5:f:18:ARG:NH1	5:f:60:LEU:O	2.40	0.52
5:k:27:LEU:HD13	5:k:85:LEU:HD12	1.92	0.52
5:q:34:VAL:HG21	5:q:50:TYR:HE2	1.75	0.52
6:u:643:PHE:CD2	6:u:656:LEU:HB2	2.45	0.52
6:x:52:ASN:HB2	6:x:93:GLY:HA3	1.91	0.52
2:AD:33:GLU:HG3	6:x:290:VAL:CG1	2.40	0.52
3:C:227:LEU:HG	3:C:243:THR:HG22	1.92	0.52
3:G:305:ILE:HG21	3:H:302:PRO:HG3	1.92	0.52
3:H:228:ARG:NH1	3:H:244:TYR:OH	2.43	0.52
3:K:227:LEU:HG	3:K:243:THR:HG22	1.92	0.52
4:M:98:ASN:ND2	4:N:129:GLU:HA	2.25	0.52
4:P:37:ASN:HD22	6:x:729:TYR:HE1	1.57	0.52
5:o:21:ASN:HA	5:o:57:THR:HA	1.91	0.52
6:s:337:THR:HG22	6:s:382:ILE:HD12	1.92	0.52
6:u:12:LYS:HE2	6:u:537:GLN:HG2	1.90	0.52
6:u:352:PHE:HE2	6:u:354:PHE:HB2	1.75	0.52
6:u:424:LEU:HD11	6:u:435:VAL:HG22	1.91	0.52
6:v:350:ASP:HB3	6:v:361:LEU:HD13	1.92	0.52
6:v:645:GLN:NE2	6:v:646:PRO:O	2.43	0.52
6:w:121:VAL:HG12	6:w:122:ALA:N	2.25	0.52
6:x:352:PHE:HE2	6:x:354:PHE:HB2	1.74	0.52
2:8:58:ARG:HD2	6:w:75:GLU:OE2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:66:LEU:HD11	3:A:139:VAL:HB	1.91	0.52
3:A:311:LEU:HD23	3:A:320:VAL:HG11	1.92	0.52
3:A:393:SER:O	3:A:397:GLN:N	2.38	0.52
4:U:75:SER:HB3	4:U:77:LEU:HD23	1.92	0.52
5:k:50:TYR:CE1	5:k:60:LEU:HD13	2.45	0.52
5:n:50:TYR:CE1	5:n:60:LEU:HD13	2.45	0.52
6:t:53:THR:HG21	6:t:623:GLY:HA3	1.92	0.52
6:t:126:PHE:CD1	6:t:325:LEU:HD11	2.42	0.52
6:t:153:LEU:HB2	6:t:247:VAL:HB	1.91	0.52
6:x:350:ASP:HB3	6:x:361:LEU:HD13	1.91	0.52
3:G:92:GLU:HG3	3:G:96:LEU:HB2	1.92	0.52
4:V:14:LEU:HD13	4:V:32:LEU:HG	1.91	0.52
1:Z:97:ARG:NH2	6:u:381:SER:O	2.30	0.52
1:Z:129:LEU:HD11	6:u:163:ARG:NH2	2.24	0.52
5:l:62:LYS:O	5:l:62:LYS:HD3	2.10	0.52
5:n:9:LEU:HD21	5:n:23:PRO:HD2	1.92	0.52
5:q:51:ARG:HH21	5:q:53:ALA:HB2	1.74	0.52
6:s:497:PRO:HD3	6:s:524:PHE:CZ	2.45	0.52
6:t:595:ASP:O	6:t:596:MET:HG2	2.10	0.52
6:u:263:ASN:HA	6:u:286:ALA:HB2	1.92	0.52
6:v:184:GLN:HB2	6:v:187:HIS:CD2	2.45	0.52
6:v:549:VAL:HG11	6:v:565:LEU:HD12	1.91	0.52
6:w:350:ASP:HB3	6:w:361:LEU:HD13	1.90	0.52
6:w:556:SER:HA	6:w:561:MET:HA	1.91	0.52
6:w:768:ILE:HD13	6:w:778:ILE:HD11	1.92	0.52
3:A:92:GLU:HG3	3:A:96:LEU:HB2	1.92	0.52
3:D:255:ARG:NH1	3:D:262:GLU:O	2.42	0.52
3:F:90:GLU:HA	3:F:420:GLU:HG2	1.92	0.52
4:U:65:GLU:HA	4:U:120:ASN:ND2	2.25	0.52
4:U:153:ALA:HB3	4:U:156:VAL:HG12	1.91	0.52
5:f:21:ASN:HA	5:f:57:THR:HA	1.91	0.52
5:f:50:TYR:CD1	5:f:58:ILE:HD11	2.44	0.52
5:i:41:ARG:NH2	5:i:74:GLU:OE1	2.42	0.52
5:q:63:ALA:O	5:q:64:TRP:C	2.53	0.52
6:t:513:SER:OG	6:t:554:CYS:SG	2.67	0.52
6:v:161:TYR:OH	6:v:188:VAL:HA	2.09	0.52
6:w:124:TYR:HB2	6:w:313:VAL:HA	1.92	0.52
6:x:197:ALA:HA	6:x:220:ILE:HD11	1.91	0.52
3:A:231:GLU:HA	3:A:236:GLU:HA	1.91	0.52
3:D:74:MET:HE2	3:D:131:PHE:HB2	1.91	0.52
3:D:290:SER:HB3	3:E:344:VAL:HG21	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:378:ALA:HB1	3:E:389:TYR:HE2	1.73	0.52
3:H:126:TYR:CE1	3:H:158:MET:HB2	2.45	0.52
3:K:396:LEU:O	3:K:400:LEU:HD23	2.08	0.52
4:T:45:ARG:NH1	4:U:19:ASP:OD1	2.41	0.52
4:V:51:ASN:O	4:V:55:GLN:HG3	2.10	0.52
5:e:97:TYR:O	5:e:101:VAL:HG22	2.09	0.52
5:f:64:TRP:HA	5:f:64:TRP:CE3	2.45	0.52
5:g:5:ILE:HG23	5:g:115:ASP:HB3	1.91	0.52
5:l:29:ARG:NH1	5:l:52:PHE:HB2	2.25	0.52
6:t:369:SER:HB3	6:t:377:PHE:HE1	1.75	0.52
6:u:156:VAL:HG23	6:u:193:ALA:HB1	1.91	0.52
6:v:57:ASN:ND2	6:v:567:ASN:O	2.35	0.52
6:v:643:PHE:CE1	6:v:656:LEU:HD12	2.45	0.52
6:x:124:TYR:HB2	6:x:313:VAL:HA	1.92	0.52
2:AD:20:VAL:HG11	6:x:188:VAL:HG11	1.92	0.51
3:L:90:GLU:HA	3:L:420:GLU:HG2	1.92	0.51
3:L:176:VAL:HG11	3:L:179:MET:HE2	1.92	0.51
4:O:2:ARG:CZ	5:a:55:ARG:HH22	2.23	0.51
5:c:18:ARG:NH1	5:c:60:LEU:O	2.40	0.51
6:t:71:ARG:HG3	6:t:122:ALA:O	2.10	0.51
6:t:465:SER:HB3	6:u:582:ALA:HB1	1.92	0.51
6:u:153:LEU:HB2	6:u:247:VAL:HB	1.92	0.51
6:v:495:TYR:OH	6:v:542:HIS:ND1	2.35	0.51
3:A:145:LEU:HD22	3:A:158:MET:HE2	1.90	0.51
3:A:395:GLU:O	3:A:399:PRO:HG2	2.11	0.51
3:E:124:ASN:ND2	3:E:156:ASN:OD1	2.40	0.51
3:G:300:VAL:HG21	4:U:176:MET:SD	2.50	0.51
3:I:227:LEU:HG	3:I:243:THR:HG22	1.92	0.51
3:I:417:LEU:HB3	3:I:421:ALA:HB3	1.91	0.51
3:K:124:ASN:ND2	3:K:156:ASN:OD1	2.41	0.51
4:P:147:ASN:OD1	4:P:148:ASN:N	2.43	0.51
4:X:99:ARG:NH2	4:X:111:ASP:OD1	2.43	0.51
5:a:60:LEU:HB3	5:a:64:TRP:HZ3	1.75	0.51
6:t:556:SER:HA	6:t:561:MET:HA	1.91	0.51
6:u:549:VAL:HG11	6:u:565:LEU:HD12	1.93	0.51
6:v:355:ARG:HD2	6:v:430:LEU:HB2	1.91	0.51
6:v:550:GLN:OE1	6:v:566:ARG:NH1	2.43	0.51
6:x:734:ALA:O	6:x:735:ARG:HB2	2.10	0.51
3:C:128:VAL:HG12	3:D:390:SER:HB2	1.92	0.51
3:C:255:ARG:HB3	3:C:265:GLY:HA3	1.91	0.51
3:C:357:MET:HE1	3:C:380:GLU:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:368:ARG:HG2	3:G:372:GLU:HG2	1.92	0.51
3:I:68:ASN:ND2	3:I:357:MET:O	2.43	0.51
3:I:413:GLN:HG2	3:J:94:LYS:HB2	1.92	0.51
3:J:277:ARG:HD2	4:V:196:ARG:HG3	1.92	0.51
3:L:405:LEU:HD13	3:L:426:ILE:HD11	1.92	0.51
4:M:19:ASP:OD1	4:X:49:LYS:HD2	2.11	0.51
4:N:37:ASN:HD22	6:w:729:TYR:HE1	1.58	0.51
5:b:18:ARG:HE	5:b:62:LYS:HA	1.75	0.51
5:n:50:TYR:HE1	5:n:60:LEU:HD13	1.73	0.51
5:o:15:GLY:HA2	5:o:66:PRO:HD3	1.92	0.51
5:q:18:ARG:HE	5:q:62:LYS:HA	1.75	0.51
6:s:72:ASP:OD1	6:s:73:GLU:N	2.43	0.51
6:s:161:TYR:OH	6:s:188:VAL:HA	2.10	0.51
6:u:184:GLN:HG3	6:u:186:GLU:H	1.75	0.51
6:x:124:TYR:CG	6:x:313:VAL:HG22	2.45	0.51
6:x:466:SER:HA	6:x:498:ASN:ND2	2.25	0.51
2:3:27:GLN:OE1	1:Z:119:ARG:NH1	2.43	0.51
3:A:302:PRO:HG3	3:L:305:ILE:HG21	1.91	0.51
3:C:417:LEU:HB3	3:C:421:ALA:HB3	1.93	0.51
3:E:117:ILE:HG23	3:E:404:LEU:HD23	1.91	0.51
3:J:121:ILE:HG23	3:J:126:TYR:HB2	1.91	0.51
3:J:127:ARG:NH1	3:K:431:GLU:OE1	2.43	0.51
3:J:312:THR:HG21	4:X:181:TYR:HB3	1.92	0.51
4:S:2:ARG:CZ	5:m:55:ARG:HH22	2.23	0.51
4:T:37:ASN:HD22	6:t:729:TYR:HE1	1.58	0.51
4:U:182:ASN:HB3	4:U:186:GLY:H	1.75	0.51
6:v:385:LEU:HD21	6:v:433:LYS:HZ3	1.76	0.51
6:x:60:LEU:HD23	6:x:87:ARG:HD3	1.92	0.51
3:F:122:GLU:HA	3:G:431:GLU:OE2	2.10	0.51
3:G:78:PHE:HE2	3:G:130:LEU:HD13	1.76	0.51
3:I:269:ILE:O	3:I:273:LEU:N	2.44	0.51
3:L:85:ARG:HB3	3:L:427:SER:HB2	1.91	0.51
3:L:149:GLU:O	3:L:156:ASN:ND2	2.43	0.51
4:Q:55:GLN:O	4:Q:62:ASN:ND2	2.44	0.51
4:S:98:ASN:ND2	4:T:129:GLU:HA	2.25	0.51
4:T:182:ASN:HB3	4:T:186:GLY:H	1.75	0.51
5:b:104:ILE:HG12	5:b:108:HIS:CE1	2.46	0.51
5:k:8:VAL:HG22	5:k:76:ARG:HE	1.75	0.51
6:w:50:PHE:HZ	6:w:53:THR:HG23	1.75	0.51
6:w:715:THR:HG22	6:w:732:ALA:HA	1.93	0.51
1:1:94:SER:HB3	6:w:392:ASP:H	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:32:VAL:O	1:z:71:ASN:ND2	2.44	0.51
3:D:305:ILE:HG21	3:E:302:PRO:HG3	1.92	0.51
4:O:32:LEU:HD13	4:O:44:ARG:HD2	1.92	0.51
4:P:60:THR:OG1	4:P:175:GLU:OE2	2.28	0.51
4:R:147:ASN:OD1	4:R:148:ASN:N	2.43	0.51
4:S:2:ARG:HH22	4:S:6:MET:HB3	1.76	0.51
5:q:84:ARG:HH11	5:q:84:ARG:HG3	1.75	0.51
6:v:465:SER:HB3	6:w:582:ALA:HB1	1.93	0.51
1:1:109:GLU:HB2	2:7:25:LEU:HD12	1.93	0.51
2:8:33:GLU:HA	1:Y:71:ASN:HD21	1.76	0.51
3:D:128:VAL:HG11	3:E:394:GLN:HG3	1.93	0.51
3:D:186:ALA:HA	3:D:210:THR:HA	1.92	0.51
4:O:153:ALA:HB3	4:O:156:VAL:HG12	1.91	0.51
4:S:75:SER:HB3	4:S:77:LEU:HD23	1.93	0.51
4:X:14:LEU:HD13	4:X:32:LEU:HG	1.92	0.51
1:Y:129:LEU:HD21	6:v:163:ARG:HH12	1.76	0.51
5:d:107:MET:HB3	5:e:81:THR:OG1	2.11	0.51
6:t:368:LEU:HB2	6:t:391:ILE:HG12	1.91	0.51
6:u:124:TYR:HB2	6:u:313:VAL:HA	1.93	0.51
6:x:467:PHE:HB3	6:x:494:ASN:HA	1.92	0.51
3:A:168:VAL:HG12	3:A:264:TYR:HE1	1.76	0.51
2:AB:58:ARG:HB2	6:t:314:ARG:NH2	2.26	0.51
3:B:277:ARG:HD2	4:N:196:ARG:HG3	1.91	0.51
3:B:317:GLY:N	3:C:296:VAL:O	2.41	0.51
3:D:228:ARG:NH1	3:D:244:TYR:OH	2.43	0.51
3:G:58:TRP:HB2	3:G:280:GLU:HG3	1.93	0.51
3:G:66:LEU:HD11	3:G:139:VAL:HB	1.92	0.51
3:K:274:GLY:O	4:W:196:ARG:NE	2.42	0.51
4:M:55:GLN:O	4:M:62:ASN:ND2	2.43	0.51
5:b:44:LEU:HD13	5:b:49:ASP:HB3	1.92	0.51
5:h:18:ARG:HE	5:h:62:LYS:HA	1.75	0.51
6:s:550:GLN:OE1	6:s:566:ARG:NH1	2.44	0.51
6:t:492:VAL:HG22	6:t:495:TYR:HB2	1.92	0.51
6:v:240:ALA:HB3	6:v:242:GLN:HE22	1.75	0.51
6:w:492:VAL:HG22	6:w:495:TYR:HB2	1.93	0.51
6:x:556:SER:HA	6:x:561:MET:HA	1.92	0.51
2:3:25:LEU:HD13	1:Z:113:VAL:HG23	1.93	0.51
3:D:74:MET:HG2	3:D:134:LEU:HD22	1.93	0.51
3:F:213:VAL:HG12	3:F:232:VAL:HG12	1.93	0.51
3:J:24:ARG:HA	3:J:27:TYR:HD2	1.76	0.51
4:S:172:MET:O	4:S:176:MET:HG2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:u:67:HIS:NE2	6:u:120:THR:OG1	2.40	0.51
3:C:269:ILE:O	3:C:273:LEU:N	2.43	0.51
3:H:144:LEU:HB3	3:H:161:TYR:HB2	1.92	0.51
4:O:3:SER:HB3	4:O:6:MET:HG2	1.93	0.51
4:W:54:ILE:HD11	4:W:141:LYS:HD3	1.93	0.51
5:i:93:ILE:HG23	6:v:638:GLY:HA3	1.92	0.51
6:u:492:VAL:HG22	6:u:495:TYR:HB2	1.93	0.51
6:w:465:SER:HB3	6:x:582:ALA:HB1	1.92	0.51
6:x:422:PHE:HB3	6:x:437:LEU:HD11	1.92	0.51
3:A:237:VAL:HG13	3:A:240:SER:HB3	1.93	0.50
3:A:357:MET:HE1	3:A:380:GLU:HB3	1.92	0.50
3:E:396:LEU:O	3:E:400:LEU:HD23	2.11	0.50
3:H:69:LEU:HD23	3:H:357:MET:HE2	1.94	0.50
4:N:104:TYR:HD1	4:N:111:ASP:HB3	1.75	0.50
4:Q:72:ASP:OD1	5:p:10:THR:N	2.35	0.50
5:o:50:TYR:CD1	5:o:58:ILE:HD11	2.46	0.50
6:t:332:CYS:SG	6:t:338:ASN:ND2	2.84	0.50
6:u:556:SER:HA	6:u:561:MET:HA	1.93	0.50
6:w:519:ASP:OD2	6:w:522:LYS:HE2	2.11	0.50
3:A:48:ASP:HB3	3:A:52:THR:OG1	2.12	0.50
3:B:144:LEU:HB3	3:B:161:TYR:HB2	1.91	0.50
3:K:117:ILE:O	3:K:121:ILE:HG12	2.11	0.50
4:M:172:MET:O	4:M:176:MET:HG2	2.11	0.50
4:O:10:THR:HG23	4:O:13:GLU:H	1.76	0.50
4:S:144:ARG:HG2	4:S:160:LEU:HB3	1.93	0.50
4:V:37:ASN:HD22	6:u:729:TYR:HE1	1.59	0.50
4:X:26:GLU:HG3	4:X:27:PRO:HD2	1.93	0.50
5:e:24:PHE:CE2	5:e:77:ARG:HB2	2.47	0.50
5:p:5:ILE:HG23	5:p:115:ASP:HB3	1.93	0.50
6:u:299:THR:HG23	6:u:335:VAL:HG13	1.94	0.50
6:w:355:ARG:NH1	6:w:428:GLY:O	2.44	0.50
6:x:567:ASN:HD21	6:x:627:GLY:N	2.09	0.50
6:x:643:PHE:CD2	6:x:656:LEU:HB2	2.46	0.50
3:J:16:VAL:HG11	3:J:216:HIS:CE1	2.47	0.50
5:j:7:THR:HG22	5:j:77:ARG:NH2	2.26	0.50
5:l:21:ASN:HA	5:l:57:THR:HA	1.94	0.50
5:l:50:TYR:CD1	5:l:58:ILE:HD11	2.45	0.50
5:q:101:VAL:HA	5:q:104:ILE:HG22	1.93	0.50
6:s:350:ASP:HB3	6:s:361:LEU:HD13	1.93	0.50
6:t:425:THR:O	6:t:436:GLU:HB2	2.12	0.50
6:u:138:THR:O	6:u:139:LYS:HG2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:x:550:GLN:OE1	6:x:566:ARG:NH1	2.44	0.50
2:2:20:VAL:HG12	2:2:22:PRO:HD3	1.93	0.50
3:F:308:PRO:HG2	4:T:176:MET:HG3	1.93	0.50
3:I:144:LEU:HD12	3:I:253:PRO:HB3	1.93	0.50
3:I:230:GLU:HG3	3:I:240:SER:HB2	1.93	0.50
3:J:305:ILE:HG21	3:K:302:PRO:HG3	1.93	0.50
5:b:97:TYR:O	5:b:101:VAL:HG22	2.10	0.50
6:w:48:LEU:HD23	6:w:595:ASP:O	2.10	0.50
1:z:42:MET:HB2	1:z:139:ILE:HD11	1.92	0.50
1:1:77:ALA:O	1:1:81:ILE:HG12	2.12	0.50
2:AD:13:ASP:HB2	2:AD:16:GLN:HB2	1.93	0.50
3:B:248:ALA:HB1	3:B:406:LYS:HE3	1.94	0.50
3:C:68:ASN:ND2	3:C:357:MET:O	2.44	0.50
3:E:413:GLN:HG2	3:F:94:LYS:HB2	1.93	0.50
3:K:413:GLN:HG2	3:L:94:LYS:HB2	1.92	0.50
3:L:255:ARG:HH21	3:L:258:ARG:HD2	1.76	0.50
4:M:144:ARG:HG2	4:M:160:LEU:HB3	1.92	0.50
4:R:104:TYR:HD1	4:R:111:ASP:HB3	1.77	0.50
5:b:84:ARG:NH2	5:b:87:ASP:HA	2.26	0.50
5:d:29:ARG:HG3	5:d:52:PHE:CE2	2.47	0.50
5:d:77:ARG:CZ	5:d:108:HIS:HD2	2.24	0.50
5:n:26:TYR:HE2	5:n:29:ARG:HD3	1.76	0.50
6:u:617:HIS:CD2	6:u:619:PRO:HD2	2.47	0.50
6:u:634:LEU:HD23	6:u:635:GLU:O	2.10	0.50
1:0:75:VAL:HG21	6:s:384:ASN:HD22	1.76	0.50
3:B:81:GLN:HE22	3:B:371:ALA:N	2.10	0.50
3:D:157:PRO:HD2	3:D:157:PRO:O	2.12	0.50
3:I:20:LEU:HB2	3:I:167:VAL:HG11	1.94	0.50
4:M:98:ASN:HD22	4:N:129:GLU:HA	1.77	0.50
6:s:586:GLN:HB2	6:s:599:ARG:HH11	1.75	0.50
3:A:230:GLU:HG3	3:A:240:SER:HB2	1.92	0.50
3:G:317:GLY:O	4:V:182:ASN:ND2	2.41	0.50
4:R:49:LYS:HD2	4:S:19:ASP:OD2	2.12	0.50
4:S:98:ASN:HD22	4:T:129:GLU:HA	1.76	0.50
6:s:184:GLN:HB2	6:s:187:HIS:HD2	1.75	0.50
6:t:519:ASP:OD2	6:t:522:LYS:HE2	2.11	0.50
6:v:124:TYR:HB2	6:v:313:VAL:HA	1.93	0.50
6:w:117:ARG:HD3	6:w:130:ARG:HH11	1.76	0.50
6:w:153:LEU:HB2	6:w:247:VAL:HB	1.93	0.50
6:w:174:VAL:HA	6:w:207:ASN:HD22	1.77	0.50
6:w:688:ALA:O	6:w:692:SER:OG	2.28	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:x:138:THR:O	6:x:139:LYS:HG2	2.12	0.50
3:A:117:ILE:HD13	3:A:408:LEU:HD12	1.94	0.50
3:A:269:ILE:O	3:A:273:LEU:N	2.45	0.50
3:G:395:GLU:O	3:G:399:PRO:HG2	2.12	0.50
3:J:290:SER:HB3	3:K:344:VAL:HG21	1.94	0.50
4:P:182:ASN:HB3	4:P:186:GLY:H	1.76	0.50
4:R:169:ARG:O	4:R:173:GLU:HG3	2.11	0.50
5:g:24:PHE:HE2	5:g:32:VAL:HG22	1.76	0.50
5:k:97:TYR:O	5:k:101:VAL:HG22	2.11	0.50
5:n:29:ARG:HH11	5:n:29:ARG:HG3	1.77	0.50
6:s:601:THR:HA	6:s:665:ARG:O	2.12	0.50
6:x:299:THR:HG23	6:x:335:VAL:HG13	1.94	0.50
6:x:773:THR:O	6:x:773:THR:HG22	2.12	0.50
3:A:147:LEU:HD11	3:A:400:LEU:HD13	1.93	0.50
3:B:319:PHE:CE2	4:Q:183:MET:HB3	2.47	0.50
3:C:48:ASP:HB3	3:C:52:THR:OG1	2.12	0.50
3:J:419:LYS:HA	3:J:422:VAL:HB	1.94	0.50
3:K:17:TYR:OH	3:K:165:SER:O	2.24	0.50
3:K:237:VAL:HG13	3:K:240:SER:HB3	1.94	0.50
3:K:269:ILE:O	3:K:273:LEU:N	2.44	0.50
5:i:19:ASP:HA	5:i:59:SER:HA	1.94	0.50
5:k:22:ILE:HG22	5:k:75:LEU:HD13	1.94	0.50
5:n:64:TRP:HE1	5:n:70:TYR:HD2	1.60	0.50
6:s:11:LEU:HA	6:s:26:ASP:HB2	1.94	0.50
6:u:422:PHE:HB3	6:u:437:LEU:HD11	1.94	0.50
6:w:550:GLN:OE1	6:w:566:ARG:NH1	2.44	0.50
6:x:411:GLU:O	6:x:412:GLU:HB3	2.11	0.50
3:A:372:GLU:HG2	3:L:368:ARG:HG2	1.93	0.49
3:F:419:LYS:O	3:F:423:GLU:N	2.41	0.49
3:L:144:LEU:HB3	3:L:161:TYR:HB2	1.94	0.49
4:M:42:ASN:O	4:M:46:ILE:HG12	2.12	0.49
4:S:42:ASN:O	4:S:46:ILE:HG12	2.11	0.49
6:s:425:THR:O	6:s:436:GLU:HB2	2.12	0.49
6:t:23:ARG:NH2	6:t:29:SER:HA	2.27	0.49
6:t:118:MET:HG2	6:t:127:ILE:HG12	1.94	0.49
6:w:679:PHE:HB2	6:w:766:VAL:HG23	1.94	0.49
3:A:38:THR:HG21	3:A:269:ILE:HD13	1.94	0.49
3:B:419:LYS:O	3:B:423:GLU:N	2.38	0.49
3:C:230:GLU:HG3	3:C:240:SER:HB2	1.94	0.49
3:D:213:VAL:HG12	3:D:232:VAL:HG12	1.94	0.49
3:H:48:ASP:HB2	3:H:52:THR:HG22	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:277:ARG:HD2	4:T:196:ARG:HG3	1.93	0.49
3:J:331:GLN:NE2	3:K:333:GLU:O	2.44	0.49
3:K:162:ARG:NH1	3:K:164:SER:OG	2.45	0.49
3:L:205:LYS:HE2	3:L:211:ILE:HD11	1.95	0.49
4:M:119:VAL:HG23	4:M:121:ILE:HG13	1.94	0.49
6:s:117:ARG:HD2	6:s:130:ARG:HH11	1.77	0.49
6:s:465:SER:HB3	6:t:582:ALA:HB1	1.94	0.49
1:l:71:ASN:ND2	2:AD:33:GLU:HA	2.27	0.49
3:D:87:THR:OG1	3:D:425:THR:OG1	2.27	0.49
3:D:357:MET:SD	3:D:384:THR:OG1	2.69	0.49
3:E:117:ILE:O	3:E:121:ILE:HG12	2.11	0.49
3:G:14:LYS:HG3	3:G:214:TYR:CZ	2.48	0.49
3:I:146:TYR:OH	3:I:228:ARG:NH1	2.37	0.49
3:L:190:LEU:HD13	3:L:194:ILE:HG22	1.92	0.49
4:V:55:GLN:O	4:V:62:ASN:ND2	2.45	0.49
4:V:147:ASN:OD1	4:V:148:ASN:N	2.44	0.49
5:j:62:LYS:HG2	5:j:63:ALA:N	2.27	0.49
6:t:592:ALA:HB3	6:t:594:MET:HE2	1.94	0.49
6:u:50:PHE:O	6:u:51:LEU:HD23	2.12	0.49
6:v:184:GLN:HB2	6:v:187:HIS:HD2	1.77	0.49
6:w:584:ASP:HB2	6:w:597:LYS:HZ1	1.77	0.49
6:x:20:ASP:HA	6:x:23:ARG:HD2	1.94	0.49
6:x:53:THR:HG21	6:x:623:GLY:HA3	1.94	0.49
3:I:309:ARG:O	3:I:313:LYS:HG3	2.12	0.49
4:V:104:TYR:HD1	4:V:111:ASP:HB3	1.77	0.49
5:f:19:ASP:HA	5:f:59:SER:HA	1.94	0.49
5:i:47:ASN:OD1	5:i:48:THR:N	2.46	0.49
5:q:93:ILE:HD13	6:s:731:MET:HG2	1.94	0.49
6:s:57:ASN:ND2	6:s:567:ASN:O	2.36	0.49
6:s:549:VAL:HG11	6:s:565:LEU:HD12	1.94	0.49
6:s:713:SER:OG	6:s:776:LEU:HA	2.12	0.49
6:t:141:VAL:HA	6:t:300:GLU:HA	1.94	0.49
2:AB:33:GLU:HA	1:z:71:ASN:HD21	1.77	0.49
3:E:372:GLU:HA	3:E:375:ARG:NH1	2.27	0.49
4:P:24:ILE:O	6:w:790:ARG:NH2	2.46	0.49
4:P:169:ARG:O	4:P:173:GLU:HG3	2.13	0.49
4:R:24:ILE:HG12	4:R:151:PHE:HE2	1.78	0.49
5:a:77:ARG:CZ	5:a:108:HIS:HD2	2.25	0.49
5:b:8:VAL:HG11	5:b:76:ARG:HH21	1.77	0.49
6:t:567:ASN:HB2	6:t:572:PHE:CE2	2.47	0.49
6:u:78:TYR:HE2	6:u:564:ILE:HG23	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:x:12:LYS:HE2	6:x:537:GLN:HG2	1.94	0.49
2:5:25:LEU:HD12	1:z:109:GLU:HB2	1.93	0.49
2:8:54:LEU:HG	6:w:124:TYR:CZ	2.48	0.49
3:C:20:LEU:HB2	3:C:167:VAL:HG11	1.94	0.49
3:D:419:LYS:O	3:D:423:GLU:N	2.40	0.49
3:F:302:PRO:HB2	4:T:169:ARG:HG3	1.95	0.49
3:F:405:LEU:HD13	3:F:426:ILE:HD11	1.95	0.49
3:G:398:LEU:HD21	3:G:402:ARG:NH2	2.28	0.49
3:J:385:LEU:HB3	3:J:388:VAL:HG22	1.94	0.49
5:a:96:ALA:O	5:a:100:ASN:ND2	2.46	0.49
5:e:87:ASP:N	5:e:87:ASP:OD1	2.45	0.49
5:p:22:ILE:HG13	5:p:22:ILE:O	2.12	0.49
6:s:582:ALA:HB1	6:x:465:SER:HB3	1.94	0.49
6:u:47:PRO:HD2	6:u:591:ARG:HH21	1.77	0.49
6:v:118:MET:SD	6:v:127:ILE:HG12	2.53	0.49
6:v:601:THR:HA	6:v:665:ARG:O	2.11	0.49
6:x:742:ARG:HB3	6:x:745:ARG:HG3	1.94	0.49
1:0:71:ASN:HD21	2:AC:33:GLU:HA	1.78	0.49
3:A:396:LEU:O	3:A:400:LEU:HD23	2.12	0.49
3:B:185:ILE:HG12	3:C:173:PHE:HB2	1.95	0.49
3:F:317:GLY:O	4:U:183:MET:HG2	2.12	0.49
3:H:290:SER:HB3	3:I:344:VAL:HG21	1.94	0.49
3:I:409:GLN:HA	3:I:412:GLN:HG2	1.93	0.49
3:L:186:ALA:HA	3:L:210:THR:HA	1.94	0.49
4:W:130:MET:HG3	4:W:131:PRO:HD2	1.94	0.49
5:f:30:LYS:NZ	5:f:83:ASP:OD2	2.33	0.49
5:f:36:LEU:HD13	5:f:44:LEU:HD11	1.93	0.49
5:k:76:ARG:HG2	5:k:78:VAL:HG23	1.95	0.49
5:o:93:ILE:HG23	6:t:638:GLY:HA3	1.94	0.49
6:t:138:THR:HG22	6:t:139:LYS:N	2.28	0.49
6:v:209:SER:OG	6:v:210:ASP:N	2.46	0.49
6:v:403:LEU:HD13	6:v:415:ILE:HG21	1.94	0.49
6:v:632:THR:HG23	6:v:640:ILE:HG23	1.95	0.49
1:1:42:MET:HB2	1:1:139:ILE:HD11	1.95	0.49
2:AC:20:VAL:HG11	6:s:188:VAL:HG11	1.94	0.49
3:B:292:ILE:HD13	4:O:183:MET:HE2	1.95	0.49
3:B:419:LYS:HA	3:B:422:VAL:HB	1.93	0.49
3:C:58:TRP:CE3	3:C:284:GLU:HA	2.47	0.49
3:G:48:ASP:HB3	3:G:52:THR:OG1	2.12	0.49
3:I:24:ARG:NH1	3:I:166:TYR:O	2.45	0.49
3:I:48:ASP:HB3	3:I:52:THR:OG1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:255:ARG:HB3	3:J:265:GLY:HA3	1.95	0.49
5:j:22:ILE:HG13	5:j:22:ILE:O	2.13	0.49
5:m:22:ILE:HG13	5:m:22:ILE:O	2.12	0.49
6:s:104:SER:C	6:s:106:TYR:N	2.71	0.49
6:s:567:ASN:HD21	6:s:627:GLY:H	1.60	0.49
6:t:174:VAL:HA	6:t:207:ASN:HD22	1.78	0.49
6:u:272:ASP:O	6:u:274:SER:N	2.45	0.49
6:v:453:GLY:HA2	6:v:458:VAL:HA	1.94	0.49
6:v:479:VAL:O	6:v:482:VAL:HG13	2.12	0.49
6:x:260:ASN:C	6:x:260:ASN:HD22	2.21	0.49
3:D:144:LEU:HB3	3:D:161:TYR:HB2	1.94	0.49
3:E:237:VAL:HG13	3:E:240:SER:HB3	1.95	0.49
3:H:302:PRO:HB2	4:V:169:ARG:HG3	1.95	0.49
3:I:144:LEU:HD21	3:I:251:TYR:HD2	1.78	0.49
5:h:37:ILE:HD12	5:h:41:ARG:HG2	1.95	0.49
6:t:117:ARG:HD3	6:t:130:ARG:HH11	1.78	0.49
6:t:260:ASN:HD22	6:t:260:ASN:C	2.21	0.49
6:v:124:TYR:CG	6:v:313:VAL:HG22	2.47	0.49
6:v:355:ARG:NH1	6:v:428:GLY:O	2.46	0.49
6:v:768:ILE:HD13	6:v:778:ILE:HD11	1.95	0.49
6:w:700:ARG:NH1	6:w:702:GLN:OE1	2.46	0.49
6:x:209:SER:OG	6:x:210:ASP:N	2.46	0.49
6:x:513:SER:OG	6:x:554:CYS:SG	2.68	0.49
6:x:714:GLY:HA3	6:x:774:THR:HG21	1.95	0.49
3:J:215:THR:HG22	3:J:217:ILE:HD11	1.94	0.49
4:M:151:PHE:CZ	6:v:788:LEU:HD23	2.48	0.49
4:P:137:TRP:CZ2	4:P:168:ARG:HG3	2.48	0.49
4:Q:76:ASN:O	4:Q:113:PHE:N	2.43	0.49
4:V:137:TRP:CZ2	4:V:168:ARG:HG3	2.48	0.49
5:a:62:LYS:HG2	5:a:63:ALA:N	2.27	0.49
6:s:522:LYS:HE2	6:s:524:PHE:CZ	2.48	0.49
6:t:700:ARG:NH1	6:t:702:GLN:OE1	2.46	0.49
6:u:707:TRP:HB3	6:u:754:ARG:HG2	1.94	0.49
6:w:53:THR:HG21	6:w:623:GLY:HA3	1.95	0.49
6:w:513:SER:OG	6:w:554:CYS:SG	2.70	0.49
3:B:48:ASP:HB2	3:B:52:THR:HG22	1.93	0.48
3:D:24:ARG:HA	3:D:27:TYR:HD2	1.77	0.48
3:I:299:LEU:N	3:I:328:SER:O	2.45	0.48
3:J:68:ASN:ND2	3:J:357:MET:O	2.46	0.48
3:J:299:LEU:N	3:J:328:SER:O	2.46	0.48
3:L:213:VAL:HG12	3:L:232:VAL:HG12	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:319:PHE:CE2	4:O:183:MET:HB3	2.47	0.48
4:V:169:ARG:O	4:V:173:GLU:HG3	2.13	0.48
1:Z:42:MET:HB2	1:Z:139:ILE:HD11	1.93	0.48
5:a:107:MET:HE1	5:b:84:ARG:HG3	1.94	0.48
6:u:47:PRO:HB2	6:u:597:LYS:HE2	1.95	0.48
6:u:588:GLU:N	6:u:668:TYR:OH	2.45	0.48
6:v:417:SER:O	6:v:418:ASP:C	2.55	0.48
6:w:52:ASN:HB2	6:w:93:GLY:HA3	1.94	0.48
6:w:138:THR:O	6:w:139:LYS:HG2	2.12	0.48
6:x:118:MET:HG2	6:x:127:ILE:HG12	1.95	0.48
3:B:414:ILE:HD13	3:B:422:VAL:HG13	1.94	0.48
3:C:145:LEU:HD22	3:C:158:MET:SD	2.53	0.48
3:D:245:PRO:HG2	3:D:248:ALA:HB3	1.95	0.48
3:G:128:VAL:HG11	3:H:394:GLN:HB2	1.95	0.48
4:T:87:LEU:HD22	4:T:119:VAL:HG21	1.95	0.48
5:b:34:VAL:HG11	5:b:50:TYR:CE2	2.48	0.48
5:c:65:GLY:C	5:c:67:ALA:H	2.21	0.48
5:g:93:ILE:HD11	6:v:742:ARG:HH21	1.78	0.48
6:s:209:SER:OG	6:s:210:ASP:N	2.46	0.48
6:u:162:GLY:HA2	6:u:179:ILE:O	2.13	0.48
6:v:397:THR:HG22	6:v:398:ASN:H	1.78	0.48
6:w:99:ARG:NH1	6:w:321:ASP:OD1	2.46	0.48
6:w:215:VAL:HG12	6:w:220:ILE:HG12	1.93	0.48
6:x:492:VAL:HG22	6:x:495:TYR:HB2	1.94	0.48
6:x:617:HIS:CD2	6:x:620:THR:HG23	2.47	0.48
3:A:168:VAL:HG23	3:A:179:MET:HB3	1.94	0.48
3:H:256:MET:HG3	3:H:257:VAL:HG23	1.94	0.48
3:K:279:LEU:HB2	3:K:348:ILE:HG21	1.94	0.48
4:N:182:ASN:HB3	4:N:186:GLY:H	1.78	0.48
5:r:30:LYS:NZ	5:r:83:ASP:OD2	2.28	0.48
6:s:60:LEU:HD22	6:s:80:VAL:CG2	2.43	0.48
6:s:768:ILE:HD13	6:s:778:ILE:HD11	1.96	0.48
6:t:20:ASP:HA	6:t:23:ARG:HD2	1.96	0.48
6:u:209:SER:OG	6:u:210:ASP:N	2.46	0.48
6:v:681:LYS:HZ2	6:v:765:THR:HG22	1.77	0.48
6:x:174:VAL:HA	6:x:207:ASN:HD22	1.78	0.48
6:x:549:VAL:HG11	6:x:565:LEU:HD12	1.94	0.48
3:E:128:VAL:HG11	3:F:394:GLN:HB2	1.95	0.48
3:F:205:LYS:HE2	3:F:211:ILE:HD11	1.96	0.48
3:I:58:TRP:CE3	3:I:284:GLU:HA	2.49	0.48
3:K:120:TYR:CE2	3:K:404:LEU:HD11	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:M:75:SER:HB3	4:M:77:LEU:HD23	1.95	0.48
4:P:112:ARG:HD3	5:p:18:ARG:HH12	1.78	0.48
4:R:144:ARG:NH1	4:R:157:GLU:OE2	2.46	0.48
4:U:144:ARG:HG2	4:U:160:LEU:HB3	1.96	0.48
5:a:22:ILE:O	5:a:22:ILE:HG13	2.14	0.48
5:b:76:ARG:HG2	5:b:78:VAL:HG23	1.94	0.48
5:p:106:THR:HG23	5:q:106:THR:OG1	2.14	0.48
5:r:95:ARG:HG3	5:r:98:ASP:H	1.78	0.48
6:s:301:ASP:HA	6:s:330:LYS:HG2	1.95	0.48
6:u:163:ARG:HG3	6:u:239:TYR:HB2	1.95	0.48
6:u:504:CYS:O	6:u:513:SER:N	2.32	0.48
6:u:773:THR:O	6:u:773:THR:HG22	2.14	0.48
6:v:211:TRP:HZ3	6:v:230:ILE:HD13	1.78	0.48
6:v:504:CYS:O	6:v:513:SER:N	2.33	0.48
6:v:594:MET:O	6:v:671:PHE:N	2.47	0.48
6:w:50:PHE:O	6:w:51:LEU:HD23	2.13	0.48
6:x:164:GLU:HG2	6:x:178:LYS:HD2	1.95	0.48
6:x:707:TRP:HB3	6:x:754:ARG:HG2	1.94	0.48
3:D:88:ILE:HD11	3:D:421:ALA:HA	1.95	0.48
3:I:21:LYS:HZ3	3:I:24:ARG:HH21	1.60	0.48
4:O:98:ASN:ND2	4:P:129:GLU:HA	2.28	0.48
4:S:119:VAL:HG23	4:S:121:ILE:HG13	1.96	0.48
5:k:44:LEU:HD13	5:k:49:ASP:HB3	1.94	0.48
5:n:13:LEU:HD12	5:n:20:PHE:CZ	2.49	0.48
5:n:84:ARG:HH11	5:n:84:ARG:HG3	1.79	0.48
6:s:211:TRP:HZ3	6:s:230:ILE:HD13	1.78	0.48
6:t:155:ASN:ND2	6:t:245:ASN:OD1	2.42	0.48
6:t:215:VAL:HG12	6:t:220:ILE:HG12	1.94	0.48
6:u:174:VAL:HA	6:u:207:ASN:HD22	1.79	0.48
6:x:219:PHE:HE2	6:x:221:HIS:HB2	1.78	0.48
6:x:634:LEU:HD23	6:x:635:GLU:O	2.13	0.48
3:B:126:TYR:HD1	3:B:158:MET:HE3	1.78	0.48
3:E:17:TYR:OH	3:E:165:SER:O	2.22	0.48
3:F:385:LEU:HB3	3:F:388:VAL:HG22	1.95	0.48
3:L:300:VAL:HG21	3:L:308:PRO:HG3	1.94	0.48
4:Q:182:ASN:HB3	4:Q:186:GLY:H	1.77	0.48
4:W:84:TYR:HD1	4:W:121:ILE:HG21	1.78	0.48
1:Z:90:LEU:HD12	1:Z:90:LEU:HA	1.71	0.48
1:Z:107:ILE:HD12	6:u:277:ALA:HB3	1.96	0.48
6:s:396:SER:HB2	1:z:91:GLU:CG	2.43	0.48
6:u:104:SER:C	6:u:106:TYR:N	2.69	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:u:736:LEU:HD23	6:u:741:LEU:HD21	1.95	0.48
6:w:23:ARG:NH2	6:w:29:SER:HA	2.27	0.48
6:w:209:SER:OG	6:w:210:ASP:N	2.46	0.48
3:B:68:ASN:ND2	3:B:357:MET:O	2.40	0.48
3:C:274:GLY:O	4:O:196:ARG:NE	2.41	0.48
3:C:413:GLN:HG2	3:D:94:LYS:HB2	1.95	0.48
3:G:237:VAL:HG13	3:G:240:SER:HB3	1.96	0.48
3:L:419:LYS:HA	3:L:422:VAL:HB	1.95	0.48
4:M:130:MET:HG3	4:M:131:PRO:HD2	1.95	0.48
4:S:10:THR:HG22	4:S:12:ALA:H	1.79	0.48
4:V:24:ILE:O	6:t:790:ARG:NH2	2.46	0.48
5:b:24:PHE:CE2	5:b:77:ARG:HB2	2.48	0.48
5:d:22:ILE:O	5:d:22:ILE:HG13	2.13	0.48
5:k:22:ILE:HG12	5:k:56:THR:O	2.14	0.48
6:s:118:MET:SD	6:s:127:ILE:HG12	2.53	0.48
6:u:594:MET:HB3	6:u:670:GLY:HA3	1.95	0.48
6:v:117:ARG:HD2	6:v:130:ARG:HH11	1.78	0.48
6:v:413:LEU:HB3	6:v:424:LEU:HB3	1.96	0.48
6:v:688:ALA:O	6:v:692:SER:OG	2.29	0.48
6:x:212:THR:HG23	6:x:223:THR:HB	1.96	0.48
3:C:299:LEU:N	3:C:328:SER:O	2.46	0.48
3:C:369:VAL:HG23	3:C:374:ILE:HD11	1.95	0.48
3:H:85:ARG:HB3	3:H:427:SER:HB2	1.94	0.48
3:J:133:ALA:HB2	3:J:145:LEU:HD21	1.95	0.48
4:W:182:ASN:HB3	4:W:186:GLY:H	1.79	0.48
5:d:103:GLN:O	5:d:107:MET:HG3	2.14	0.48
6:t:679:PHE:HB2	6:t:766:VAL:HG23	1.94	0.48
6:u:370:ARG:HG3	6:u:390:PRO:HD3	1.94	0.48
6:v:621:ILE:HG13	6:v:622:TYR:N	2.29	0.48
6:x:266:MET:HE3	6:x:266:MET:HB3	1.79	0.48
3:A:60:ALA:HB3	3:B:351:ARG:HD2	1.94	0.48
3:E:147:LEU:HD11	3:E:400:LEU:HD13	1.96	0.48
3:G:60:ALA:HB3	3:H:351:ARG:HD2	1.95	0.48
3:H:38:THR:HG23	3:H:39:ILE:H	1.79	0.48
3:I:145:LEU:HD23	3:I:158:MET:SD	2.54	0.48
4:N:87:LEU:HD23	4:N:121:ILE:HG12	1.96	0.48
4:O:4:TYR:HE2	5:b:90:ASP:HB2	1.79	0.48
4:P:104:TYR:HD1	4:P:111:ASP:HB3	1.78	0.48
5:g:13:LEU:O	5:g:17:ASN:ND2	2.47	0.48
5:i:47:ASN:OD1	5:i:48:THR:HG23	2.14	0.48
5:k:98:ASP:OD1	5:k:99:LEU:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:t:104:SER:C	6:t:106:TYR:N	2.71	0.48
6:u:362:SER:HB3	6:u:365:ASN:OD1	2.14	0.48
6:u:716:PHE:CE1	6:u:718:ILE:HD11	2.48	0.48
6:v:492:VAL:HG22	6:v:495:TYR:HB2	1.96	0.48
6:w:20:ASP:HA	6:w:23:ARG:HD2	1.96	0.48
3:A:14:LYS:HG3	3:A:214:TYR:CZ	2.49	0.48
3:A:317:GLY:N	3:B:296:VAL:O	2.41	0.48
3:D:192:GLU:C	3:D:196:LYS:HZ3	2.22	0.48
3:H:88:ILE:HG12	3:H:106:VAL:HG11	1.96	0.48
3:H:299:LEU:N	3:H:328:SER:O	2.46	0.48
3:K:107:ASP:OD1	3:K:108:GLU:N	2.46	0.48
4:P:7:ASN:OD1	5:a:55:ARG:NH1	2.46	0.48
5:a:54:THR:HB	5:a:57:THR:HB	1.94	0.48
5:a:111:GLU:HG2	5:b:81:THR:HG21	1.95	0.48
6:t:179:ILE:HD11	6:t:196:LEU:HD11	1.95	0.48
6:u:72:ASP:O	6:u:76:GLN:NE2	2.46	0.48
6:u:153:LEU:HD21	6:u:262:PRO:HD3	1.96	0.48
6:u:465:SER:HB3	6:v:582:ALA:HB1	1.95	0.48
6:w:141:VAL:HA	6:w:300:GLU:HA	1.95	0.48
6:x:308:MET:HE3	6:x:309:PRO:HD2	1.96	0.48
3:A:68:ASN:ND2	3:A:357:MET:O	2.46	0.47
3:A:378:ALA:HB1	3:A:389:TYR:HE2	1.78	0.47
3:B:299:LEU:N	3:B:328:SER:O	2.47	0.47
3:D:295:LYS:NZ	4:Q:187:ASP:OD2	2.47	0.47
3:H:412:GLN:HG2	3:I:93:ALA:HB2	1.96	0.47
3:I:290:SER:HB3	3:J:344:VAL:HG21	1.96	0.47
4:U:141:LYS:HE2	4:U:141:LYS:HB3	1.64	0.47
5:b:107:MET:HE3	5:c:81:THR:HA	1.96	0.47
5:e:60:LEU:O	5:e:61:THR:OG1	2.29	0.47
5:e:104:ILE:HG13	5:f:84:ARG:NH2	2.29	0.47
6:s:124:TYR:HB2	6:s:313:VAL:HA	1.96	0.47
6:t:99:ARG:NH1	6:t:321:ASP:OD1	2.47	0.47
6:t:459:TYR:CE2	6:t:472:ARG:HG3	2.49	0.47
6:u:550:GLN:OE1	6:u:566:ARG:NH1	2.47	0.47
6:w:302:GLN:HG3	6:w:303:VAL:O	2.14	0.47
2:6:11:LYS:HE2	2:6:14:THR:HB	1.95	0.47
3:B:170:ARG:HH21	3:B:253:PRO:HB2	1.78	0.47
3:C:391:ILE:HG13	3:C:392:LEU:N	2.29	0.47
3:F:309:ARG:HB3	4:T:181:TYR:CZ	2.48	0.47
3:F:312:THR:HG21	4:T:181:TYR:HB3	1.95	0.47
3:G:274:GLY:O	4:S:196:ARG:NE	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:317:GLY:N	3:H:296:VAL:O	2.41	0.47
3:H:145:LEU:HD13	3:H:158:MET:HE1	1.95	0.47
3:I:314:ALA:HB1	3:I:318:ASP:HB2	1.94	0.47
3:J:138:VAL:HG22	3:J:256:MET:HE1	1.96	0.47
3:K:317:GLY:N	3:L:296:VAL:O	2.39	0.47
3:L:309:ARG:HB3	4:N:181:TYR:CZ	2.49	0.47
3:L:419:LYS:O	3:L:423:GLU:N	2.41	0.47
5:b:22:ILE:HG12	5:b:56:THR:O	2.15	0.47
5:d:54:THR:HB	5:d:57:THR:HG22	1.95	0.47
5:e:26:TYR:HE2	5:e:29:ARG:HD3	1.79	0.47
5:h:31:PHE:CD1	5:h:79:THR:HA	2.49	0.47
5:j:60:LEU:HB3	5:j:64:TRP:HZ3	1.79	0.47
6:t:121:VAL:HG12	6:t:122:ALA:N	2.28	0.47
6:t:370:ARG:HG2	6:t:390:PRO:HD3	1.96	0.47
6:u:308:MET:HE3	6:u:309:PRO:HD2	1.96	0.47
6:v:301:ASP:OD1	6:v:301:ASP:N	2.46	0.47
6:v:586:GLN:O	6:v:668:TYR:OH	2.23	0.47
6:x:362:SER:HB3	6:x:365:ASN:OD1	2.14	0.47
2:AA:33:GLU:OE1	6:u:288:ARG:NH2	2.48	0.47
2:AB:54:LEU:HD13	6:t:121:VAL:HG11	1.96	0.47
3:B:187:PHE:HA	3:B:190:LEU:HG	1.96	0.47
3:E:66:LEU:HD11	3:E:139:VAL:HB	1.95	0.47
3:H:85:ARG:N	3:H:427:SER:O	2.39	0.47
3:L:357:MET:SD	3:L:384:THR:OG1	2.72	0.47
4:M:52:ARG:HD3	4:N:132:GLU:OE2	2.15	0.47
4:Q:54:ILE:HD11	4:Q:141:LYS:HD3	1.96	0.47
4:Q:61:PHE:HE2	4:Q:130:MET:HE3	1.80	0.47
4:S:141:LYS:HE2	4:S:141:LYS:HB3	1.65	0.47
4:T:55:GLN:O	4:T:62:ASN:ND2	2.48	0.47
4:T:169:ARG:O	4:T:173:GLU:HG3	2.14	0.47
5:m:84:ARG:HD3	5:o:104:ILE:HG22	1.95	0.47
6:s:453:GLY:HA2	6:s:458:VAL:HA	1.95	0.47
6:t:211:TRP:HZ3	6:t:230:ILE:HD13	1.79	0.47
6:u:617:HIS:CD2	6:u:620:THR:HG23	2.47	0.47
6:u:625:ASN:OD1	6:u:625:ASN:N	2.47	0.47
6:v:497:PRO:HD3	6:v:524:PHE:CZ	2.49	0.47
6:w:391:ILE:HG22	6:w:432:SER:HB3	1.95	0.47
6:x:23:ARG:NH2	6:x:29:SER:HA	2.30	0.47
3:A:391:ILE:HG13	3:A:392:LEU:N	2.30	0.47
3:B:302:PRO:HB2	4:P:169:ARG:HG3	1.96	0.47
3:F:419:LYS:HA	3:F:422:VAL:HB	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:39:ILE:HB	3:J:42:LEU:HD23	1.97	0.47
3:J:302:PRO:HB2	4:X:169:ARG:HG3	1.96	0.47
6:s:99:ARG:NH1	6:s:321:ASP:OD1	2.47	0.47
6:t:601:THR:HA	6:t:665:ARG:O	2.14	0.47
6:u:72:ASP:OD1	6:u:73:GLU:N	2.48	0.47
6:v:174:VAL:HA	6:v:207:ASN:HD22	1.80	0.47
6:x:504:CYS:O	6:x:513:SER:N	2.32	0.47
1:l:91:GLU:HG3	6:w:396:SER:OG	2.15	0.47
3:B:205:LYS:HE2	3:B:211:ILE:HD11	1.96	0.47
3:G:121:ILE:HD11	3:G:404:LEU:HD22	1.96	0.47
3:H:274:GLY:O	4:T:196:ARG:HD2	2.14	0.47
3:K:330:LEU:O	3:L:334:LYS:NZ	2.47	0.47
4:O:13:GLU:OE2	4:O:44:ARG:NH2	2.42	0.47
4:X:155:GLU:OE1	6:u:790:ARG:NH1	2.45	0.47
1:Y:31:THR:HB	1:Y:35:ARG:NH1	2.30	0.47
5:p:93:ILE:HD11	6:s:742:ARG:HH21	1.78	0.47
6:s:174:VAL:HA	6:s:207:ASN:HD22	1.79	0.47
6:s:260:ASN:C	6:s:260:ASN:HD22	2.21	0.47
6:t:184:GLN:HG3	6:t:186:GLU:H	1.79	0.47
6:t:212:THR:HG23	6:t:223:THR:HB	1.96	0.47
6:t:362:SER:HB3	6:t:365:ASN:OD1	2.14	0.47
6:t:487:ASP:OD1	6:t:488:ILE:N	2.48	0.47
6:u:143:LEU:N	6:u:297:TRP:O	2.42	0.47
6:w:362:SER:HB3	6:w:365:ASN:OD1	2.13	0.47
6:x:617:HIS:CD2	6:x:619:PRO:HD2	2.50	0.47
6:x:716:PHE:CE1	6:x:718:ILE:HD11	2.50	0.47
2:AD:52:LYS:HA	2:AD:52:LYS:HD2	1.77	0.47
3:D:312:THR:HG21	4:R:181:TYR:HB3	1.95	0.47
3:E:375:ARG:HA	3:E:430:LEU:HD21	1.96	0.47
3:J:213:VAL:HG12	3:J:232:VAL:HG12	1.96	0.47
3:L:138:VAL:HG22	3:L:256:MET:HE1	1.95	0.47
4:O:97:VAL:HG22	4:O:98:ASN:H	1.78	0.47
4:X:169:ARG:O	4:X:173:GLU:HG3	2.15	0.47
5:e:104:ILE:O	5:e:108:HIS:ND1	2.46	0.47
5:h:65:GLY:HA3	5:h:70:TYR:O	2.14	0.47
5:h:84:ARG:HH11	5:h:84:ARG:HG3	1.80	0.47
6:s:594:MET:O	6:s:671:PHE:N	2.47	0.47
6:u:69:ILE:HD11	6:u:79:ALA:HB2	1.96	0.47
6:v:12:LYS:HE2	6:v:537:GLN:HG2	1.95	0.47
6:v:60:LEU:HD23	6:v:87:ARG:HD3	1.96	0.47
6:w:601:THR:HA	6:w:665:ARG:O	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:138:VAL:HA	3:A:256:MET:HE1	1.97	0.47
3:A:417:LEU:HB3	3:A:421:ALA:HB3	1.97	0.47
3:B:274:GLY:O	4:N:196:ARG:HD2	2.15	0.47
3:B:412:GLN:HG2	3:C:93:ALA:HB2	1.97	0.47
3:C:55:GLN:NE2	4:P:196:ARG:O	2.32	0.47
3:C:121:ILE:O	3:C:126:TYR:HB2	2.15	0.47
3:D:385:LEU:HB3	3:D:388:VAL:HG22	1.96	0.47
3:E:120:TYR:CE2	3:E:404:LEU:HD11	2.49	0.47
3:E:330:LEU:O	3:F:334:LYS:NZ	2.48	0.47
3:F:144:LEU:HB3	3:F:161:TYR:HB2	1.95	0.47
3:F:401:VAL:HG11	3:F:426:ILE:HG21	1.97	0.47
3:G:16:VAL:O	3:G:20:LEU:HG	2.14	0.47
3:G:275:ASP:HA	4:S:196:ARG:HH21	1.80	0.47
3:H:76:ALA:HA	3:H:374:ILE:HG23	1.97	0.47
3:I:300:VAL:HG21	4:W:176:MET:SD	2.54	0.47
3:K:77:LEU:O	3:K:397:GLN:NE2	2.48	0.47
3:K:231:GLU:HA	3:K:236:GLU:HA	1.97	0.47
4:N:35:ASP:OD1	6:w:728:LYS:HD2	2.14	0.47
4:S:4:TYR:HE1	5:n:90:ASP:HB2	1.79	0.47
4:T:87:LEU:HD23	4:T:121:ILE:HG12	1.97	0.47
4:T:95:ILE:O	4:T:106:ARG:HG2	2.14	0.47
4:X:24:ILE:HG12	4:X:151:PHE:HE2	1.79	0.47
4:X:112:ARG:HD3	5:d:18:ARG:HH12	1.78	0.47
5:d:93:ILE:HA	6:w:742:ARG:HA	1.97	0.47
5:f:47:ASN:OD1	5:f:48:THR:N	2.47	0.47
5:g:54:THR:OG1	5:g:57:THR:HG22	2.14	0.47
5:l:25:GLU:O	5:l:77:ARG:NH1	2.45	0.47
5:m:5:ILE:HG23	5:m:115:ASP:HB3	1.97	0.47
5:n:13:LEU:HD12	5:n:20:PHE:HZ	1.79	0.47
6:s:23:ARG:NH2	6:s:29:SER:HA	2.30	0.47
6:s:135:GLN:HB2	6:s:304:LEU:HD12	1.96	0.47
6:s:299:THR:HG21	6:s:334:ASP:HA	1.97	0.47
6:t:50:PHE:O	6:t:51:LEU:HD23	2.15	0.47
6:t:163:ARG:NH2	1:y:129:LEU:HD11	2.30	0.47
6:t:209:SER:OG	6:t:210:ASP:N	2.46	0.47
6:w:30:ARG:NH1	6:w:678:GLU:OE1	2.48	0.47
6:w:138:THR:HG22	6:w:139:LYS:H	1.80	0.47
6:w:453:GLY:HA2	6:w:458:VAL:HA	1.97	0.47
6:x:174:VAL:HG13	6:x:207:ASN:HB2	1.97	0.47
3:C:290:SER:HB3	3:D:344:VAL:HG21	1.95	0.47
3:G:55:GLN:HG2	4:T:196:ARG:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:315:GLN:HG3	3:G:316:THR:H	1.80	0.47
3:K:48:ASP:HB3	3:K:52:THR:OG1	2.15	0.47
4:M:97:VAL:HG22	4:M:98:ASN:H	1.80	0.47
4:Q:80:TYR:HE1	4:Q:87:LEU:HB2	1.79	0.47
4:W:10:THR:HG22	4:W:12:ALA:H	1.80	0.47
5:b:22:ILE:HG22	5:b:75:LEU:HD13	1.95	0.47
5:e:44:LEU:HD13	5:e:49:ASP:HB3	1.96	0.47
5:e:76:ARG:HG2	5:e:78:VAL:HG23	1.96	0.47
6:s:30:ARG:NH1	6:s:678:GLU:OE1	2.48	0.47
6:s:163:ARG:NH1	1:z:129:LEU:HD21	2.30	0.47
6:s:586:GLN:O	6:s:668:TYR:OH	2.25	0.47
6:s:735:ARG:H	6:s:741:LEU:HD12	1.79	0.47
6:t:704:ARG:N	6:t:784:GLU:O	2.45	0.47
6:u:567:ASN:HD21	6:u:627:GLY:H	1.63	0.47
6:v:567:ASN:HD21	6:v:627:GLY:H	1.63	0.47
6:w:635:GLU:HG3	6:w:667:VAL:HG12	1.96	0.47
6:x:15:ILE:HD11	6:x:31:GLN:H	1.79	0.47
2:8:29:VAL:HG12	1:Y:60:LEU:HG	1.97	0.47
3:A:314:ALA:HB1	3:A:318:ASP:HB3	1.97	0.47
3:B:38:THR:HG23	3:B:39:ILE:H	1.80	0.47
3:B:58:TRP:HA	4:O:196:ARG:HH12	1.80	0.47
3:C:168:VAL:HG12	3:C:264:TYR:CE1	2.49	0.47
3:F:68:ASN:HD22	3:F:358:LEU:HA	1.79	0.47
3:I:168:VAL:HG12	3:I:264:TYR:CE1	2.50	0.47
3:I:201:GLN:NE2	3:I:235:MET:SD	2.72	0.47
3:J:218:TYR:HE2	3:J:227:LEU:HD12	1.78	0.47
4:M:129:GLU:O	4:M:129:GLU:HG2	2.15	0.47
1:Y:87:GLU:OE1	6:w:355:ARG:HD3	2.15	0.47
5:h:60:LEU:O	5:h:61:THR:OG1	2.30	0.47
5:k:107:MET:HE3	5:l:81:THR:HA	1.97	0.47
6:s:681:LYS:HZ1	6:s:765:THR:HG22	1.79	0.47
6:s:716:PHE:CD1	6:s:768:ILE:HD11	2.50	0.47
6:t:678:GLU:HG3	6:t:767:TYR:HB3	1.96	0.47
6:t:681:LYS:HZ1	6:t:765:THR:HG22	1.79	0.47
6:u:212:THR:HG23	6:u:223:THR:HB	1.97	0.47
6:v:51:LEU:HD23	6:v:91:LEU:O	2.14	0.47
6:v:215:VAL:HG12	6:v:220:ILE:HG12	1.97	0.47
6:v:722:ASN:OD1	6:v:723:GLN:N	2.41	0.47
6:w:179:ILE:HD11	6:w:196:LEU:HD11	1.95	0.47
6:w:424:LEU:HD12	6:w:436:GLU:O	2.14	0.47
6:w:487:ASP:OD1	6:w:488:ILE:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:55:GLN:HG2	4:N:196:ARG:O	2.14	0.47
3:A:288:LYS:HG2	4:N:194:LEU:HD22	1.97	0.47
3:C:24:ARG:NH1	3:C:163:LEU:O	2.48	0.47
3:D:159:LYS:HG3	3:D:161:TYR:CE1	2.50	0.47
3:E:315:GLN:HG3	3:E:316:THR:H	1.79	0.47
3:K:315:GLN:HG3	3:K:316:THR:H	1.79	0.47
4:M:72:ASP:OD2	4:M:75:SER:N	2.37	0.47
4:O:60:THR:OG1	4:O:181:TYR:OH	2.25	0.47
4:P:144:ARG:O	4:P:148:ASN:ND2	2.48	0.47
4:S:84:TYR:HD1	4:S:121:ILE:HG21	1.79	0.47
4:X:147:ASN:OD1	4:X:148:ASN:N	2.48	0.47
1:Y:58:SER:O	1:Y:62:GLU:HG3	2.15	0.47
1:Y:129:LEU:HD11	6:v:163:ARG:NH2	2.30	0.47
5:i:95:ARG:HG3	5:i:98:ASP:H	1.80	0.47
6:s:60:LEU:HD23	6:s:87:ARG:HD3	1.97	0.47
6:s:679:PHE:HB2	6:s:766:VAL:HG23	1.97	0.47
6:s:722:ASN:OD1	6:s:723:GLN:N	2.43	0.47
6:v:716:PHE:CD1	6:v:768:ILE:HD11	2.50	0.47
3:A:112:MET:HA	3:A:115:ARG:CZ	2.45	0.46
2:AD:55:LYS:HA	6:x:123:ASP:HB2	1.97	0.46
3:C:309:ARG:O	3:C:313:LYS:HG3	2.15	0.46
3:D:414:ILE:HD13	3:D:422:VAL:HG13	1.95	0.46
3:E:129:THR:HG21	3:E:158:MET:HG3	1.97	0.46
3:F:155:TYR:CD2	3:F:157:PRO:HD3	2.50	0.46
3:F:367:GLU:HA	3:G:376:TYR:CD1	2.50	0.46
3:H:137:LEU:HB3	3:H:256:MET:HE2	1.97	0.46
3:I:147:LEU:HD11	3:I:400:LEU:HD13	1.97	0.46
5:b:98:ASP:OD1	5:b:99:LEU:N	2.48	0.46
5:c:67:ALA:O	5:c:69:GLY:N	2.48	0.46
5:i:45:THR:OG1	5:i:48:THR:OG1	2.21	0.46
5:m:62:LYS:HG2	5:m:63:ALA:N	2.29	0.46
6:s:381:SER:O	1:z:97:ARG:NH2	2.39	0.46
6:u:161:TYR:OH	6:u:188:VAL:HA	2.15	0.46
6:u:215:VAL:HG12	6:u:220:ILE:HG12	1.97	0.46
6:u:356:ASN:ND2	1:y:86:GLY:O	2.31	0.46
6:v:102:ASN:HB3	6:v:324:TRP:CE3	2.50	0.46
6:w:566:ARG:HA	6:w:571:THR:HA	1.96	0.46
2:4:32:VAL:HG11	6:t:160:GLN:NE2	2.30	0.46
2:7:17:ILE:HA	2:7:20:VAL:HG23	1.97	0.46
2:8:33:GLU:HG3	6:w:290:VAL:CG1	2.40	0.46
3:A:300:VAL:HG23	3:L:321:THR:HA	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:309:ARG:HB3	4:Q:181:TYR:CZ	2.49	0.46
3:D:85:ARG:HB3	3:D:427:SER:HB2	1.96	0.46
3:D:302:PRO:HB2	4:R:169:ARG:HG3	1.98	0.46
4:S:2:ARG:NE	5:m:55:ARG:HH12	2.12	0.46
5:c:53:ALA:HB3	5:c:57:THR:HG23	1.98	0.46
5:q:35:THR:HG22	5:q:43:VAL:HG12	1.96	0.46
6:t:302:GLN:HG3	6:t:303:VAL:O	2.14	0.46
6:u:601:THR:HA	6:u:665:ARG:O	2.15	0.46
6:v:415:ILE:HB	6:v:422:PHE:HB2	1.98	0.46
6:v:614:THR:O	6:v:658:LEU:N	2.48	0.46
6:w:212:THR:HG23	6:w:223:THR:HB	1.98	0.46
6:x:78:TYR:HE2	6:x:564:ILE:HG23	1.80	0.46
6:x:184:GLN:HB3	6:x:187:HIS:CD2	2.50	0.46
2:AB:25:LEU:HD21	1:z:118:ARG:HG2	1.96	0.46
3:B:74:MET:HG3	3:B:131:PHE:HD1	1.80	0.46
3:D:405:LEU:HD22	3:D:426:ILE:HD11	1.97	0.46
3:E:162:ARG:NH2	3:E:164:SER:OG	2.48	0.46
3:H:190:LEU:HD13	3:H:194:ILE:HG22	1.97	0.46
3:J:385:LEU:HD22	3:J:388:VAL:HG21	1.97	0.46
3:K:16:VAL:HG12	3:K:19:ARG:HH21	1.79	0.46
3:L:68:ASN:HD22	3:L:358:LEU:HA	1.80	0.46
4:M:54:ILE:HD11	4:M:141:LYS:HD3	1.97	0.46
4:O:79:VAL:HG11	5:a:23:PRO:HB3	1.96	0.46
4:R:87:LEU:HD22	4:R:119:VAL:HG21	1.96	0.46
5:q:34:VAL:HG11	5:q:50:TYR:CE2	2.50	0.46
6:t:30:ARG:NH1	6:t:678:GLU:OE1	2.48	0.46
6:t:504:CYS:O	6:t:513:SER:N	2.33	0.46
6:u:714:GLY:HA3	6:u:774:THR:HG21	1.97	0.46
6:v:135:GLN:HB2	6:v:304:LEU:HD12	1.96	0.46
3:D:299:LEU:N	3:D:328:SER:O	2.48	0.46
3:E:382:GLU:OE1	3:E:389:TYR:HB3	2.16	0.46
3:F:196:LYS:O	3:F:200:GLY:N	2.33	0.46
3:G:288:LYS:HG2	4:T:194:LEU:HD22	1.97	0.46
3:H:312:THR:HG21	4:V:181:TYR:HB3	1.98	0.46
3:I:391:ILE:HG13	3:I:392:LEU:N	2.30	0.46
3:J:74:MET:HG2	3:J:134:LEU:HD22	1.96	0.46
4:N:169:ARG:O	4:N:173:GLU:HG3	2.15	0.46
4:R:55:GLN:O	4:R:62:ASN:ND2	2.48	0.46
4:X:55:GLN:O	4:X:62:ASN:ND2	2.48	0.46
5:e:13:LEU:HD12	5:e:20:PHE:HZ	1.80	0.46
5:e:101:VAL:HA	5:e:104:ILE:HG22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:46:ILE:O	5:h:50:TYR:HB2	2.15	0.46
5:k:34:VAL:HG11	5:k:50:TYR:CE2	2.50	0.46
5:n:34:VAL:HG21	5:n:50:TYR:HE2	1.81	0.46
5:n:34:VAL:HG11	5:n:50:TYR:CE2	2.50	0.46
5:o:19:ASP:HA	5:o:59:SER:HA	1.97	0.46
5:r:19:ASP:HA	5:r:59:SER:HA	1.97	0.46
6:t:52:ASN:HB2	6:t:93:GLY:HA3	1.97	0.46
6:t:163:ARG:HH12	1:y:129:LEU:HD21	1.80	0.46
6:t:588:GLU:HA	6:t:668:TYR:HE2	1.79	0.46
6:t:716:PHE:CD2	6:t:776:LEU:HD13	2.50	0.46
6:u:20:ASP:HA	6:u:23:ARG:HD2	1.97	0.46
6:u:102:ASN:HB3	6:u:324:TRP:CZ3	2.49	0.46
6:u:164:GLU:HG2	6:u:178:LYS:HD2	1.96	0.46
6:u:260:ASN:C	6:u:260:ASN:HD22	2.21	0.46
6:u:487:ASP:OD1	6:u:488:ILE:N	2.48	0.46
6:w:588:GLU:HA	6:w:668:TYR:HE2	1.80	0.46
3:A:274:GLY:O	4:M:196:ARG:NE	2.46	0.46
3:G:259:LEU:HD22	3:G:266:ARG:HD2	1.96	0.46
3:H:13:ALA:HA	3:H:16:VAL:HG12	1.96	0.46
3:H:186:ALA:HA	3:H:210:THR:HA	1.97	0.46
4:O:73:VAL:HG23	4:O:74:TYR:HD1	1.81	0.46
4:P:67:ILE:HD11	4:P:121:ILE:HB	1.97	0.46
4:W:172:MET:O	4:W:176:MET:HG2	2.15	0.46
4:X:95:ILE:O	4:X:106:ARG:HG2	2.16	0.46
5:b:84:ARG:HH21	5:b:87:ASP:HA	1.79	0.46
5:e:13:LEU:HD12	5:e:20:PHE:CZ	2.50	0.46
5:f:47:ASN:OD1	5:f:48:THR:HG23	2.16	0.46
5:k:16:SER:HB3	5:k:63:ALA:CB	2.44	0.46
5:n:87:ASP:OD1	5:n:87:ASP:N	2.48	0.46
6:s:362:SER:HB3	6:s:365:ASN:OD1	2.16	0.46
6:s:557:ILE:HG22	6:s:558:SER:H	1.80	0.46
6:t:549:VAL:HG11	6:t:565:LEU:HD12	1.97	0.46
6:w:281:TYR:HB2	6:w:294:THR:O	2.16	0.46
6:x:590:TYR:CD1	6:x:746:LEU:HD11	2.51	0.46
2:AC:33:GLU:OE1	6:s:288:ARG:NH2	2.49	0.46
3:B:305:ILE:HG21	3:C:302:PRO:HG3	1.98	0.46
3:D:179:MET:HE1	3:D:251:TYR:HB2	1.97	0.46
3:F:255:ARG:HB3	3:F:265:GLY:HA3	1.97	0.46
5:a:51:ARG:HH12	5:a:53:ALA:HB2	1.80	0.46
5:e:85:LEU:HD23	5:e:85:LEU:HA	1.81	0.46
5:f:18:ARG:HH22	5:f:63:ALA:HB2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:g:22:ILE:HG13	5:g:22:ILE:O	2.14	0.46
5:h:13:LEU:HD12	5:h:20:PHE:HE2	1.81	0.46
5:l:53:ALA:HB3	5:l:57:THR:HG23	1.96	0.46
6:t:343:PHE:HB3	6:t:362:SER:HB2	1.98	0.46
6:u:157:ARG:HG2	1:y:57:ARG:HG2	1.98	0.46
6:u:450:ARG:NE	6:u:500:VAL:O	2.45	0.46
6:u:513:SER:OG	6:u:554:CYS:SG	2.68	0.46
6:u:704:ARG:N	6:u:784:GLU:O	2.37	0.46
6:v:679:PHE:HB2	6:v:766:VAL:HG23	1.96	0.46
6:w:211:TRP:HZ3	6:w:230:ILE:HD13	1.80	0.46
6:w:260:ASN:HD22	6:w:260:ASN:C	2.21	0.46
6:w:497:PRO:HB2	6:w:518:GLY:HA3	1.97	0.46
6:x:614:THR:O	6:x:658:LEU:N	2.49	0.46
3:B:146:TYR:HD1	3:B:251:TYR:CD1	2.34	0.46
3:B:191:PRO:HD2	3:B:194:ILE:HD12	1.98	0.46
3:C:77:LEU:O	3:C:397:GLN:NE2	2.49	0.46
3:E:213:VAL:HG12	3:E:232:VAL:HG12	1.98	0.46
3:G:16:VAL:HG12	3:G:19:ARG:HH21	1.81	0.46
3:H:419:LYS:O	3:H:423:GLU:N	2.39	0.46
3:L:302:PRO:HB2	4:N:169:ARG:HG3	1.97	0.46
5:a:24:PHE:CE2	5:a:77:ARG:HB2	2.51	0.46
6:s:406:ALA:HB1	6:s:413:LEU:HD11	1.98	0.46
6:u:157:ARG:CZ	6:u:242:GLN:HB2	2.46	0.46
6:u:194:GLN:HA	6:u:194:GLN:NE2	2.31	0.46
6:v:53:THR:HG22	6:v:572:PHE:CD1	2.51	0.46
6:w:678:GLU:HG3	6:w:767:TYR:HB3	1.97	0.46
6:x:162:GLY:HA2	6:x:179:ILE:O	2.16	0.46
1:1:88:SER:O	1:1:89:MET:HG3	2.15	0.46
2:3:25:LEU:HD12	1:Z:109:GLU:HB2	1.96	0.46
3:A:290:SER:HB3	3:B:344:VAL:HG21	1.98	0.46
3:B:331:GLN:NE2	3:C:333:GLU:O	2.49	0.46
3:C:80:MET:HB2	3:C:369:VAL:HG11	1.97	0.46
3:K:292:ILE:HD11	4:X:184:LEU:HD21	1.96	0.46
4:M:149:ARG:HD3	4:N:22:ALA:O	2.16	0.46
4:N:144:ARG:NH1	4:N:164:GLU:OE1	2.49	0.46
4:Q:149:ARG:HD3	4:R:22:ALA:O	2.16	0.46
4:U:172:MET:O	4:U:176:MET:HG2	2.15	0.46
5:c:67:ALA:C	5:c:69:GLY:N	2.74	0.46
5:g:104:ILE:HG12	5:g:108:HIS:HE1	1.80	0.46
5:k:13:LEU:HD12	5:k:20:PHE:HZ	1.81	0.46
6:s:50:PHE:HZ	6:s:53:THR:HG23	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:s:54:LEU:HD21	6:s:573:LEU:HD12	1.97	0.46
6:s:164:GLU:HG2	6:s:178:LYS:HD2	1.98	0.46
6:t:635:GLU:HG3	6:t:667:VAL:HG12	1.96	0.46
6:v:557:ILE:HG22	6:v:558:SER:H	1.81	0.46
6:v:713:SER:OG	6:v:776:LEU:HA	2.16	0.46
2:6:12:MET:HE3	2:6:12:MET:HB2	1.90	0.46
2:9:13:ASP:HB2	2:9:16:GLN:HB2	1.97	0.46
3:B:217:ILE:HA	3:B:227:LEU:O	2.15	0.46
3:C:250:PRO:HA	3:C:403:VAL:HG21	1.97	0.46
4:N:149:ARG:HB3	4:O:22:ALA:O	2.16	0.46
4:R:26:GLU:HG3	4:R:27:PRO:HD2	1.97	0.46
5:e:31:PHE:CD1	5:e:79:THR:HA	2.51	0.46
6:s:78:TYR:HE1	6:s:555:GLN:HG3	1.80	0.46
6:t:675:PHE:O	6:t:769:LEU:HA	2.16	0.46
6:u:368:LEU:HB2	6:u:391:ILE:HG12	1.98	0.46
6:u:557:ILE:HG22	6:u:558:SER:H	1.80	0.46
6:u:664:GLY:O	6:u:665:ARG:HD3	2.16	0.46
6:v:686:GLN:NE2	6:v:694:SER:OG	2.49	0.46
1:0:35:ARG:CZ	2:AC:11:LYS:HE2	2.45	0.46
3:B:88:ILE:HG12	3:B:106:VAL:HG11	1.97	0.46
3:F:290:SER:HB2	3:G:282:LEU:HD21	1.98	0.46
3:G:147:LEU:HD11	3:G:400:LEU:HD13	1.98	0.46
3:K:147:LEU:HD11	3:K:400:LEU:HD13	1.97	0.46
4:M:141:LYS:HE2	4:M:141:LYS:HB3	1.68	0.46
4:R:46:ILE:HD11	4:R:150:PHE:HE2	1.81	0.46
4:S:97:VAL:HG22	4:S:98:ASN:H	1.80	0.46
4:W:137:TRP:CZ2	4:W:168:ARG:HG3	2.51	0.46
5:h:7:THR:HG23	5:h:8:VAL:HG23	1.97	0.46
5:j:18:ARG:HD3	5:j:18:ARG:HA	1.79	0.46
6:s:215:VAL:HG12	6:s:220:ILE:HG12	1.97	0.46
6:t:138:THR:HG22	6:t:139:LYS:H	1.81	0.46
6:u:15:ILE:HD11	6:u:31:GLN:H	1.81	0.46
6:v:734:ALA:HB3	6:v:741:LEU:HB2	1.97	0.46
6:w:417:SER:O	6:w:418:ASP:C	2.59	0.46
6:x:35:TRP:CD1	6:x:37:SER:HB3	2.51	0.46
6:x:163:ARG:HG3	6:x:239:TYR:HB2	1.98	0.46
6:x:557:ILE:HG22	6:x:558:SER:H	1.80	0.46
6:x:567:ASN:HD21	6:x:627:GLY:H	1.62	0.46
3:E:321:THR:HG21	4:T:173:GLU:HB3	1.98	0.45
3:H:305:ILE:HG21	3:I:302:PRO:HG3	1.98	0.45
3:H:331:GLN:NE2	3:I:333:GLU:O	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:369:VAL:HG23	3:I:374:ILE:HD11	1.97	0.45
3:J:228:ARG:NH1	3:J:244:TYR:OH	2.49	0.45
5:g:24:PHE:HB2	5:g:77:ARG:NH1	2.32	0.45
5:k:69:GLY:C	5:k:71:THR:H	2.25	0.45
5:m:104:ILE:HG12	5:m:108:HIS:CE1	2.52	0.45
6:t:424:LEU:HD12	6:t:436:GLU:O	2.17	0.45
6:t:617:HIS:CD2	6:t:619:PRO:HD2	2.52	0.45
6:u:174:VAL:HG13	6:u:207:ASN:HB2	1.98	0.45
6:v:633:VAL:HG22	6:v:669:ILE:HG12	1.97	0.45
6:w:258:PRO:HG2	6:w:291:TRP:HZ2	1.81	0.45
6:w:716:PHE:CD2	6:w:776:LEU:HD13	2.52	0.45
6:w:736:LEU:HA	6:w:741:LEU:HD23	1.98	0.45
6:x:184:GLN:HG3	6:x:186:GLU:H	1.80	0.45
6:x:355:ARG:NH1	6:x:428:GLY:O	2.49	0.45
3:C:112:MET:HA	3:C:115:ARG:HG2	1.98	0.45
3:E:48:ASP:HB3	3:E:52:THR:OG1	2.14	0.45
3:E:314:ALA:HB1	3:E:318:ASP:HB3	1.97	0.45
3:G:290:SER:HB3	3:H:344:VAL:HG21	1.97	0.45
4:O:80:TYR:CE2	4:O:98:ASN:HB2	2.52	0.45
4:R:35:ASP:OD2	6:s:728:LYS:HG2	2.16	0.45
4:X:31:THR:HB	5:h:86:VAL:HG22	1.97	0.45
5:d:93:ILE:HB	5:d:95:ARG:HH12	1.81	0.45
5:f:95:ARG:NH2	6:w:637:ASP:OD2	2.50	0.45
6:t:377:PHE:C	6:t:390:PRO:HG3	2.42	0.45
6:u:734:ALA:O	6:u:735:ARG:HB2	2.16	0.45
6:v:160:GLN:HG3	6:v:160:GLN:O	2.16	0.45
6:v:362:SER:HB3	6:v:365:ASN:OD1	2.16	0.45
6:v:700:ARG:NH1	6:v:702:GLN:OE1	2.49	0.45
6:w:314:ARG:HB2	6:w:320:PHE:CE1	2.51	0.45
6:w:343:PHE:HB3	6:w:362:SER:HB2	1.98	0.45
6:x:302:GLN:NE2	6:x:329:PRO:HG3	2.31	0.45
6:x:487:ASP:OD1	6:x:488:ILE:N	2.49	0.45
3:A:315:GLN:HG3	3:A:316:THR:H	1.80	0.45
3:B:305:ILE:HD12	3:B:323:ARG:HD3	1.99	0.45
3:F:170:ARG:HH21	3:F:253:PRO:HB2	1.80	0.45
3:H:83:TRP:HH2	3:H:400:LEU:HD22	1.81	0.45
3:I:315:GLN:HG3	3:I:316:THR:H	1.82	0.45
3:I:357:MET:HE3	3:I:357:MET:HB3	1.84	0.45
3:J:42:LEU:HD11	3:J:135:LYS:HE2	1.98	0.45
3:L:170:ARG:HH21	3:L:253:PRO:HB2	1.81	0.45
4:O:172:MET:O	4:O:176:MET:HG2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:51:ASN:O	4:P:55:GLN:HG3	2.16	0.45
4:V:67:ILE:HD11	4:V:121:ILE:HB	1.96	0.45
4:W:149:ARG:HD3	4:X:22:ALA:O	2.17	0.45
5:l:13:LEU:HD21	5:l:65:GLY:HA2	1.99	0.45
5:m:107:MET:HE1	5:n:84:ARG:HG2	1.99	0.45
6:v:164:GLU:HG2	6:v:178:LYS:HD2	1.98	0.45
6:v:716:PHE:CE1	6:v:718:ILE:HD11	2.51	0.45
6:w:121:VAL:HG12	6:w:122:ALA:H	1.81	0.45
6:x:343:PHE:HB3	6:x:362:SER:HB2	1.99	0.45
6:x:564:ILE:HG22	6:x:573:LEU:HA	1.98	0.45
6:x:678:GLU:HG3	6:x:767:TYR:HB3	1.98	0.45
1:y:90:LEU:HB2	1:y:95:MET:HE2	1.99	0.45
3:B:74:MET:HG3	3:B:131:PHE:CD1	2.52	0.45
3:G:27:TYR:CE2	3:G:264:TYR:HB2	2.52	0.45
3:H:414:ILE:HD13	3:H:422:VAL:HG13	1.98	0.45
4:N:6:MET:HG2	5:d:27:LEU:HA	1.98	0.45
4:Q:151:PHE:CZ	6:x:788:LEU:HD23	2.51	0.45
1:Y:107:ILE:HD12	6:v:277:ALA:CB	2.46	0.45
5:c:25:GLU:O	5:c:77:ARG:NH1	2.44	0.45
5:q:51:ARG:NH2	5:q:59:SER:OG	2.49	0.45
6:s:51:LEU:HD23	6:s:91:LEU:O	2.16	0.45
6:s:141:VAL:HA	6:s:300:GLU:HA	1.99	0.45
6:t:599:ARG:HE	6:t:666:MET:HE1	1.81	0.45
6:v:525:MET:N	6:v:541:SER:O	2.49	0.45
6:w:161:TYR:OH	6:w:188:VAL:HA	2.16	0.45
1:y:137:SER:O	1:y:141:GLU:HG2	2.16	0.45
3:C:256:MET:HA	3:C:392:LEU:HD13	1.98	0.45
3:G:20:LEU:HB2	3:G:167:VAL:HG11	1.99	0.45
3:I:132:GLU:HG2	3:I:160:LEU:HD11	1.98	0.45
3:J:64:ARG:HG2	3:J:358:LEU:HD22	1.98	0.45
3:K:417:LEU:HB3	3:K:421:ALA:HB3	1.98	0.45
4:M:84:TYR:HD1	4:M:121:ILE:HG21	1.81	0.45
4:N:87:LEU:HD22	4:N:119:VAL:HG21	1.98	0.45
4:N:172:MET:O	4:N:176:MET:HE3	2.16	0.45
4:R:31:THR:HB	5:q:86:VAL:HG22	1.98	0.45
5:g:77:ARG:CZ	5:g:108:HIS:HD2	2.29	0.45
5:o:54:THR:OG1	5:o:57:THR:HG22	2.17	0.45
5:p:13:LEU:HD13	5:p:65:GLY:H	1.81	0.45
6:s:341:PRO:O	6:s:342:SER:OG	2.35	0.45
6:t:281:TYR:HB2	6:t:294:THR:O	2.17	0.45
6:u:688:ALA:O	6:u:692:SER:OG	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:v:50:PHE:O	6:v:51:LEU:HD12	2.17	0.45
6:v:352:PHE:HB2	6:v:408:PRO:HG3	1.98	0.45
6:x:187:HIS:HA	6:x:190:ASN:OD1	2.15	0.45
3:A:58:TRP:CE3	3:A:284:GLU:HA	2.52	0.45
3:A:259:LEU:HD22	3:A:266:ARG:HD2	1.99	0.45
3:D:201:GLN:NE2	3:D:202:GLY:O	2.50	0.45
3:E:417:LEU:HB3	3:E:421:ALA:HB3	1.98	0.45
3:H:255:ARG:NH1	3:H:262:GLU:O	2.50	0.45
3:I:14:LYS:HB3	3:I:14:LYS:HE3	1.69	0.45
3:J:85:ARG:HB3	3:J:427:SER:HB2	1.97	0.45
3:J:274:GLY:O	4:V:196:ARG:HD2	2.17	0.45
4:N:55:GLN:O	4:N:62:ASN:ND2	2.50	0.45
4:T:149:ARG:HB3	4:U:22:ALA:O	2.16	0.45
4:V:136:TYR:OH	4:V:163:GLU:OE2	2.32	0.45
5:f:27:LEU:HD21	5:f:104:ILE:HG13	1.99	0.45
6:s:556:SER:HA	6:s:561:MET:HA	1.99	0.45
6:t:302:GLN:NE2	6:t:329:PRO:HG3	2.32	0.45
6:t:453:GLY:HA2	6:t:458:VAL:HA	1.98	0.45
6:u:302:GLN:NE2	6:u:329:PRO:HG3	2.32	0.45
6:v:299:THR:HG21	6:v:334:ASP:HA	1.99	0.45
6:v:301:ASP:HA	6:v:330:LYS:HG2	1.98	0.45
6:v:487:ASP:OD1	6:v:488:ILE:N	2.49	0.45
6:v:679:PHE:O	6:v:680:SER:OG	2.28	0.45
6:w:377:PHE:C	6:w:390:PRO:HG3	2.41	0.45
6:x:215:VAL:HG12	6:x:220:ILE:HG12	1.98	0.45
6:x:269:ILE:O	6:x:279:GLN:HA	2.17	0.45
3:A:78:PHE:CZ	3:A:130:LEU:HD13	2.51	0.45
2:AA:55:LYS:HA	6:u:123:ASP:HB2	1.98	0.45
3:B:390:SER:O	3:B:393:SER:OG	2.23	0.45
3:D:412:GLN:HG2	3:E:93:ALA:HB2	1.99	0.45
3:I:268:TYR:O	3:I:271:GLU:HG2	2.17	0.45
3:K:395:GLU:O	3:K:399:PRO:HG2	2.17	0.45
3:L:230:GLU:OE1	3:L:240:SER:HB2	2.16	0.45
4:Q:172:MET:O	4:Q:176:MET:HG2	2.16	0.45
4:S:151:PHE:CZ	6:s:788:LEU:HD23	2.51	0.45
4:V:55:GLN:HB3	4:V:62:ASN:HD21	1.81	0.45
4:V:99:ARG:NH2	4:V:111:ASP:OD2	2.49	0.45
5:c:15:GLY:HA2	5:c:66:PRO:HD3	1.99	0.45
5:c:54:THR:OG1	5:c:57:THR:HG22	2.16	0.45
6:s:487:ASP:OD1	6:s:488:ILE:N	2.49	0.45
6:t:369:SER:HB3	6:t:377:PHE:CE1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:u:736:LEU:HA	6:u:741:LEU:CD2	2.47	0.45
6:v:675:PHE:O	6:v:769:LEU:HA	2.17	0.45
6:x:406:ALA:HA	6:x:414:LEU:O	2.17	0.45
3:A:275:ASP:HA	4:M:196:ARG:HH21	1.82	0.45
3:B:34:CYS:O	3:B:38:THR:HG22	2.16	0.45
3:C:17:TYR:HB2	3:C:180:VAL:HG11	1.99	0.45
3:C:385:LEU:HD23	3:C:385:LEU:O	2.17	0.45
3:D:61:VAL:HG21	3:D:349:GLU:HG2	1.98	0.45
3:E:275:ASP:OD1	3:E:352:LEU:HD21	2.17	0.45
3:E:391:ILE:HG13	3:E:392:LEU:N	2.32	0.45
3:F:321:THR:HA	3:G:300:VAL:HG23	1.99	0.45
3:L:312:THR:HG21	4:N:181:TYR:HB3	1.99	0.45
4:N:95:ILE:O	4:N:106:ARG:HG2	2.16	0.45
4:O:69:LEU:HD11	4:O:121:ILE:HD11	1.99	0.45
4:U:149:ARG:HD3	4:V:22:ALA:O	2.17	0.45
4:X:46:ILE:HD11	4:X:150:PHE:HE2	1.82	0.45
5:d:51:ARG:HG3	5:d:59:SER:OG	2.17	0.45
5:p:64:TRP:CD1	5:p:70:TYR:HD1	2.35	0.45
6:s:525:MET:N	6:s:541:SER:O	2.49	0.45
6:u:266:MET:HE3	6:u:266:MET:HB3	1.79	0.45
6:u:742:ARG:HB3	6:u:745:ARG:HG3	1.98	0.45
6:v:78:TYR:OH	6:v:562:TYR:O	2.35	0.45
6:v:589:PRO:HG2	6:v:590:TYR:CD1	2.52	0.45
6:w:675:PHE:O	6:w:769:LEU:HA	2.17	0.45
6:w:734:ALA:O	6:w:735:ARG:HB3	2.16	0.45
6:x:431:THR:O	6:x:433:LYS:N	2.40	0.45
6:x:688:ALA:O	6:x:692:SER:OG	2.28	0.45
2:2:11:LYS:HE2	2:2:14:THR:HB	1.98	0.45
2:AC:14:THR:HA	2:AC:17:ILE:HD12	1.99	0.45
3:B:186:ALA:HA	3:B:210:THR:HA	1.99	0.45
3:D:75:LEU:O	3:D:374:ILE:HD12	2.16	0.45
3:J:227:LEU:HD22	3:J:243:THR:HG22	1.99	0.45
3:K:314:ALA:HB1	3:K:318:ASP:HB3	1.98	0.45
4:Q:52:ARG:HD3	4:R:132:GLU:OE1	2.17	0.45
4:U:76:ASN:O	4:U:113:PHE:N	2.44	0.45
5:i:54:THR:OG1	5:i:57:THR:HG22	2.16	0.45
6:s:98:VAL:HG12	6:s:320:PHE:HB2	1.99	0.45
6:s:567:ASN:HD21	6:s:627:GLY:N	2.15	0.45
6:s:686:GLN:NE2	6:s:694:SER:OG	2.50	0.45
6:t:153:LEU:HD21	6:t:262:PRO:HD3	1.97	0.45
6:u:502:SER:HB2	6:u:515:LEU:HD21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:v:138:THR:HG22	6:v:139:LYS:N	2.31	0.45
6:v:368:LEU:HB2	6:v:391:ILE:HG12	1.99	0.45
6:v:476:VAL:HG22	6:v:478:ASP:OD2	2.17	0.45
6:v:705:ARG:HD2	6:v:754:ARG:NH2	2.32	0.45
6:v:719:TYR:OH	6:v:728:LYS:HE3	2.17	0.45
6:w:425:THR:O	6:w:436:GLU:HB2	2.16	0.45
6:w:614:THR:O	6:w:658:LEU:N	2.49	0.45
6:w:664:GLY:O	6:w:665:ARG:HD3	2.17	0.45
6:x:497:PRO:HD3	6:x:524:PHE:CZ	2.51	0.45
6:x:662:LEU:HD12	6:x:665:ARG:HG3	1.99	0.45
2:3:40:GLU:H	1:Z:141:GLU:CD	2.25	0.45
2:9:12:MET:HE2	1:Z:39:MET:SD	2.57	0.45
3:A:176:VAL:HG22	3:A:246:LYS:HE2	1.98	0.45
2:AD:32:VAL:HG22	6:x:291:TRP:HB2	1.98	0.45
3:D:37:TYR:OH	3:D:277:ARG:NH1	2.50	0.45
3:F:117:ILE:HD12	3:F:404:LEU:HB3	1.99	0.45
3:I:124:ASN:OD1	3:I:156:ASN:N	2.48	0.45
3:I:309:ARG:HB3	4:W:181:TYR:CZ	2.52	0.45
3:J:146:TYR:O	3:J:158:MET:HG3	2.16	0.45
3:L:321:THR:HG21	4:O:173:GLU:HG3	1.97	0.45
4:Q:130:MET:HG3	4:Q:131:PRO:HD2	1.99	0.45
4:U:2:ARG:HG2	4:V:8:VAL:O	2.17	0.45
5:c:93:ILE:HG23	6:x:638:GLY:HA3	1.99	0.45
5:n:86:VAL:HG21	5:n:101:VAL:HG23	1.99	0.45
6:s:700:ARG:NH1	6:s:702:GLN:OE1	2.50	0.45
6:t:497:PRO:HB2	6:t:518:GLY:HA3	1.97	0.45
6:u:216:GLY:HA3	6:u:219:PHE:CE1	2.52	0.45
6:u:453:GLY:HA2	6:u:458:VAL:HA	1.98	0.45
6:v:143:LEU:HB3	6:v:146:TYR:HB2	1.99	0.45
6:v:654:PRO:HD2	6:v:655:TRP:CD1	2.52	0.45
6:x:216:GLY:HA3	6:x:219:PHE:CE1	2.52	0.45
6:x:421:GLN:HB2	6:x:441:THR:OG1	2.17	0.45
6:x:502:SER:HB2	6:x:515:LEU:HD21	1.99	0.45
2:4:13:ASP:HB2	6:t:433:LYS:O	2.17	0.44
3:A:24:ARG:HG3	3:A:264:TYR:CE2	2.52	0.44
3:D:42:LEU:HD11	3:D:135:LYS:HE2	1.99	0.44
3:D:357:MET:HE1	3:D:381:LEU:HD23	1.98	0.44
3:G:267:SER:O	3:G:270:GLU:HG2	2.16	0.44
3:L:61:VAL:HG21	3:L:349:GLU:HG2	1.99	0.44
4:T:98:ASN:ND2	4:U:129:GLU:HA	2.32	0.44
1:Z:129:LEU:HD13	6:u:239:TYR:HD1	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:91:GLY:O	5:f:92:SER:OG	2.26	0.44
5:h:65:GLY:HA2	5:h:70:TYR:HB2	1.99	0.44
6:s:675:PHE:O	6:s:769:LEU:HA	2.17	0.44
6:t:621:ILE:HG13	6:t:622:TYR:N	2.32	0.44
6:u:35:TRP:CD1	6:u:37:SER:HB3	2.51	0.44
6:u:138:THR:HG22	6:u:139:LYS:N	2.32	0.44
6:u:614:THR:O	6:u:658:LEU:N	2.50	0.44
6:v:30:ARG:NH1	6:v:678:GLU:OE1	2.50	0.44
6:v:450:ARG:NE	6:v:500:VAL:O	2.47	0.44
6:v:567:ASN:HD21	6:v:627:GLY:N	2.16	0.44
6:v:588:GLU:N	6:v:668:TYR:OH	2.50	0.44
6:v:594:MET:HE1	6:v:668:TYR:O	2.17	0.44
6:w:3:LEU:HD23	6:w:3:LEU:HA	1.89	0.44
6:x:301:ASP:OD1	6:x:301:ASP:N	2.45	0.44
6:x:425:THR:O	6:x:436:GLU:HB2	2.17	0.44
6:x:654:PRO:HD2	6:x:655:TRP:CD1	2.52	0.44
3:B:312:THR:HG21	4:P:181:TYR:HB3	1.99	0.44
3:C:14:LYS:HE3	3:C:14:LYS:HB3	1.69	0.44
3:E:231:GLU:HA	3:E:236:GLU:HA	1.99	0.44
3:I:256:MET:HA	3:I:392:LEU:HD13	1.99	0.44
3:I:288:LYS:NZ	4:V:194:LEU:HD13	2.31	0.44
4:U:13:GLU:OE2	4:U:44:ARG:NH2	2.41	0.44
4:W:69:LEU:HD11	4:W:121:ILE:HD11	1.98	0.44
5:e:104:ILE:HG12	5:e:108:HIS:CE1	2.52	0.44
5:f:54:THR:OG1	5:f:57:THR:HG22	2.18	0.44
5:k:34:VAL:HG12	5:k:46:ILE:HG22	2.00	0.44
6:s:86:ILE:HD11	6:s:107:ILE:HG13	1.98	0.44
6:s:621:ILE:HG13	6:s:622:TYR:N	2.32	0.44
6:t:143:LEU:N	6:t:297:TRP:O	2.43	0.44
6:u:377:PHE:C	6:u:390:PRO:HG3	2.42	0.44
6:v:99:ARG:NH1	6:v:321:ASP:OD1	2.50	0.44
6:v:522:LYS:HE2	6:v:524:PHE:CZ	2.52	0.44
6:v:664:GLY:O	6:v:665:ARG:HD3	2.18	0.44
6:w:153:LEU:HD21	6:w:262:PRO:HD3	1.99	0.44
6:w:681:LYS:HZ1	6:w:765:THR:HG22	1.81	0.44
6:x:377:PHE:C	6:x:390:PRO:HG3	2.42	0.44
6:x:567:ASN:HB2	6:x:572:PHE:HE2	1.81	0.44
6:x:707:TRP:CG	6:x:752:GLN:HE21	2.35	0.44
6:x:716:PHE:CD1	6:x:768:ILE:HD11	2.53	0.44
2:9:33:GLU:OE1	6:v:288:ARG:NH2	2.50	0.44
3:C:268:TYR:O	3:C:271:GLU:HG2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:37:TYR:CE2	3:E:277:ARG:HA	2.52	0.44
3:E:395:GLU:O	3:E:399:PRO:HG2	2.16	0.44
3:G:65:GLY:HA3	3:G:356:PHE:CD1	2.52	0.44
3:K:27:TYR:CE2	3:K:264:TYR:HB2	2.51	0.44
3:K:267:SER:O	3:K:270:GLU:HG2	2.18	0.44
4:O:149:ARG:HD3	4:P:22:ALA:O	2.18	0.44
4:O:151:PHE:CZ	6:w:788:LEU:HD23	2.52	0.44
4:Q:79:VAL:HG11	5:p:23:PRO:HB3	1.98	0.44
4:R:95:ILE:O	4:R:106:ARG:HG2	2.17	0.44
4:R:136:TYR:OH	4:R:163:GLU:OE1	2.34	0.44
4:U:69:LEU:HD11	4:U:121:ILE:HD11	1.98	0.44
4:V:95:ILE:O	4:V:106:ARG:HG2	2.17	0.44
5:d:5:ILE:HG23	5:d:115:ASP:HB3	1.97	0.44
5:k:70:TYR:C	5:k:72:THR:H	2.24	0.44
6:s:13:GLY:HA3	6:s:26:ASP:O	2.17	0.44
6:s:71:ARG:HH11	6:s:72:ASP:HB2	1.81	0.44
6:s:412:GLU:HB2	6:s:423:VAL:HG13	2.00	0.44
6:v:188:VAL:O	6:v:191:THR:HG22	2.18	0.44
6:v:343:PHE:HB3	6:v:362:SER:HB2	1.99	0.44
6:w:118:MET:HG2	6:w:127:ILE:HG12	1.98	0.44
6:w:216:GLY:HA3	6:w:219:PHE:CE1	2.52	0.44
6:w:343:PHE:HE2	6:w:367:ILE:HG21	1.82	0.44
6:w:599:ARG:HE	6:w:666:MET:HE1	1.82	0.44
6:w:773:THR:HG22	6:w:773:THR:O	2.18	0.44
6:x:211:TRP:HZ3	6:x:230:ILE:HD13	1.82	0.44
6:x:497:PRO:HB2	6:x:518:GLY:HA3	1.99	0.44
1:y:112:MET:HE2	1:y:112:MET:HB2	1.84	0.44
3:A:402:ARG:O	3:A:406:LYS:HD2	2.17	0.44
3:C:115:ARG:HG3	3:C:116:ILE:N	2.33	0.44
3:J:106:VAL:HG22	3:J:416:GLU:OE1	2.16	0.44
3:J:147:LEU:O	3:J:147:LEU:HD12	2.17	0.44
3:K:391:ILE:HG13	3:K:392:LEU:N	2.33	0.44
4:U:4:TYR:HB3	4:U:45:ARG:HG2	1.99	0.44
5:l:54:THR:OG1	5:l:57:THR:HG22	2.17	0.44
5:n:36:LEU:HD23	5:n:44:LEU:HD23	1.99	0.44
5:n:65:GLY:HA3	5:n:66:PRO:HD3	1.81	0.44
5:r:10:THR:HA	5:r:74:GLU:HA	2.00	0.44
6:s:355:ARG:NH2	6:s:411:GLU:HA	2.32	0.44
6:s:368:LEU:HB2	6:s:391:ILE:HG12	2.00	0.44
6:t:216:GLY:HA3	6:t:219:PHE:CE1	2.52	0.44
6:u:211:TRP:HZ3	6:u:230:ILE:HD13	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:u:654:PRO:HD2	6:u:655:TRP:CD1	2.52	0.44
6:u:736:LEU:HA	6:u:741:LEU:HD23	1.97	0.44
6:v:86:ILE:HD11	6:v:107:ILE:HG13	1.99	0.44
6:v:556:SER:HA	6:v:561:MET:HA	1.99	0.44
6:w:594:MET:HB3	6:w:670:GLY:HA3	1.99	0.44
6:x:314:ARG:HB2	6:x:320:PHE:CE2	2.52	0.44
6:x:453:GLY:HA2	6:x:458:VAL:HA	1.98	0.44
3:D:106:VAL:HG22	3:D:416:GLU:OE1	2.16	0.44
3:E:16:VAL:HG12	3:E:19:ARG:HH21	1.81	0.44
3:J:255:ARG:NH1	3:J:262:GLU:O	2.50	0.44
5:a:84:ARG:HD3	5:c:104:ILE:HG22	1.99	0.44
5:g:25:GLU:HG3	5:g:108:HIS:NE2	2.33	0.44
5:g:114:ARG:HH11	5:g:114:ARG:HB2	1.81	0.44
5:l:46:ILE:HA	5:l:50:TYR:CZ	2.52	0.44
6:s:263:ASN:HA	6:s:286:ALA:HB2	1.99	0.44
6:s:664:GLY:O	6:s:665:ARG:HD3	2.17	0.44
6:u:433:LYS:H	6:u:433:LYS:HG2	1.52	0.44
6:u:497:PRO:HD3	6:u:524:PHE:CZ	2.52	0.44
6:v:141:VAL:HA	6:v:300:GLU:HA	2.00	0.44
6:w:707:TRP:HB3	6:w:754:ARG:HG2	1.99	0.44
3:E:370:THR:O	3:E:374:ILE:HG12	2.18	0.44
3:F:299:LEU:N	3:F:328:SER:O	2.50	0.44
3:I:402:ARG:HG2	3:I:426:ILE:HD12	1.99	0.44
3:J:334:LYS:NZ	3:J:337:ASP:OD2	2.41	0.44
3:J:412:GLN:HG2	3:K:93:ALA:HB2	2.00	0.44
3:K:215:THR:HG21	3:K:228:ARG:HH21	1.83	0.44
4:N:46:ILE:HD11	4:N:150:PHE:HE2	1.83	0.44
4:P:95:ILE:O	4:P:106:ARG:HG2	2.16	0.44
4:Q:10:THR:HG23	4:Q:13:GLU:H	1.83	0.44
4:W:141:LYS:HB3	4:W:141:LYS:HE2	1.66	0.44
4:W:151:PHE:CZ	6:u:788:LEU:HD23	2.52	0.44
1:Y:105:GLN:O	1:Y:109:GLU:HG2	2.18	0.44
5:j:84:ARG:HD3	5:l:104:ILE:HG22	1.99	0.44
5:m:12:GLN:HA	5:m:72:THR:HG22	2.00	0.44
6:s:654:PRO:HD2	6:s:655:TRP:CD1	2.53	0.44
6:s:719:TYR:OH	6:s:728:LYS:HE3	2.17	0.44
6:t:664:GLY:O	6:t:665:ARG:HD3	2.17	0.44
6:v:49:VAL:HG23	6:v:597:LYS:HB2	1.98	0.44
6:v:377:PHE:C	6:v:390:PRO:HG3	2.42	0.44
6:w:160:GLN:O	6:w:160:GLN:HG3	2.17	0.44
6:w:456:ARG:HD2	6:w:456:ARG:HA	1.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:w:634:LEU:HD23	6:w:635:GLU:O	2.17	0.44
6:x:120:THR:HG23	6:x:125:THR:HG22	1.99	0.44
1:z:90:LEU:HD23	1:z:90:LEU:HA	1.82	0.44
2:8:25:LEU:HD21	1:Y:118:ARG:HG2	1.99	0.44
3:A:189:ALA:HB1	3:B:175:ASN:HD21	1.83	0.44
3:C:317:GLY:N	3:D:296:VAL:O	2.40	0.44
3:D:102:GLY:O	3:D:106:VAL:HG23	2.18	0.44
3:D:274:GLY:O	4:P:196:ARG:HD2	2.17	0.44
3:G:430:LEU:HD23	3:G:430:LEU:HA	1.85	0.44
3:H:58:TRP:HA	4:U:196:ARG:HH12	1.83	0.44
4:V:98:ASN:ND2	4:W:129:GLU:HA	2.33	0.44
4:V:144:ARG:O	4:V:148:ASN:ND2	2.50	0.44
4:W:52:ARG:HD3	4:X:132:GLU:OE1	2.17	0.44
5:d:26:TYR:HA	5:d:77:ARG:HD3	1.99	0.44
5:f:13:LEU:HD21	5:f:65:GLY:CA	2.45	0.44
5:l:93:ILE:HG23	6:u:638:GLY:HA3	1.98	0.44
5:m:81:THR:HG23	5:o:107:MET:SD	2.58	0.44
6:s:168:HIS:HA	6:s:172:LYS:O	2.17	0.44
6:s:370:ARG:HG2	6:s:390:PRO:HD3	2.00	0.44
6:s:422:PHE:CD1	6:s:437:LEU:HD21	2.52	0.44
6:s:567:ASN:N	6:s:570:ASN:O	2.51	0.44
6:s:688:ALA:O	6:s:692:SER:OG	2.28	0.44
6:v:217:GLN:H	6:v:260:ASN:HD21	1.65	0.44
3:C:64:ARG:HG3	3:D:354:PHE:CE2	2.53	0.44
3:C:395:GLU:O	3:C:399:PRO:HG2	2.18	0.44
3:G:391:ILE:HG13	3:G:392:LEU:N	2.33	0.44
3:I:385:LEU:O	3:I:385:LEU:HD23	2.18	0.44
3:J:305:ILE:HD12	3:J:323:ARG:HD3	1.99	0.44
4:V:8:VAL:HG11	5:j:104:ILE:HG21	1.99	0.44
1:Y:129:LEU:HD13	6:v:239:TYR:CD1	2.53	0.44
1:Z:43:ARG:O	1:Z:47:ILE:HG12	2.18	0.44
5:a:52:PHE:HA	5:a:58:ILE:HA	2.00	0.44
5:e:22:ILE:HG13	5:e:22:ILE:O	2.17	0.44
5:k:31:PHE:CD1	5:k:79:THR:HA	2.53	0.44
6:s:138:THR:HG22	6:s:139:LYS:N	2.32	0.44
6:s:366:ILE:HD11	6:s:415:ILE:HG13	2.00	0.44
6:s:510:ASN:HB3	6:s:528:PHE:O	2.18	0.44
6:t:35:TRP:CD1	6:t:37:SER:HB3	2.52	0.44
6:t:707:TRP:HB3	6:t:754:ARG:HG2	2.00	0.44
6:u:118:MET:HG2	6:u:127:ILE:HG12	1.99	0.44
6:u:716:PHE:HE1	6:u:718:ILE:HD11	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:w:450:ARG:NE	6:w:500:VAL:O	2.48	0.44
6:x:87:ARG:NH2	6:x:95:GLU:OE1	2.51	0.44
6:x:258:PRO:HG2	6:x:291:TRP:HZ2	1.83	0.44
1:y:31:THR:HB	1:y:35:ARG:NH1	2.33	0.44
1:0:46:ASN:HB3	6:s:161:TYR:CE2	2.53	0.44
2:4:32:VAL:HG12	1:z:51:ASP:CG	2.43	0.44
3:D:142:ASN:ND2	3:D:255:ARG:HG2	2.32	0.44
3:F:125:SER:O	3:F:128:VAL:HG12	2.17	0.44
3:J:74:MET:HG3	3:J:131:PHE:CD1	2.53	0.44
4:S:149:ARG:HD3	4:T:22:ALA:O	2.17	0.44
4:V:112:ARG:HD3	5:g:18:ARG:HH12	1.83	0.44
5:d:93:ILE:HB	5:d:95:ARG:NH1	2.33	0.44
5:r:47:ASN:OD1	5:r:48:THR:N	2.51	0.44
6:s:50:PHE:O	6:s:51:LEU:HD12	2.18	0.44
6:s:703:LEU:HD22	6:s:761:ALA:HB2	2.00	0.44
6:u:117:ARG:HD2	6:u:130:ARG:NH2	2.33	0.44
6:u:314:ARG:HB2	6:u:320:PHE:CE1	2.53	0.44
6:u:684:ILE:HD13	6:u:783:TRP:HH2	1.83	0.44
6:v:50:PHE:HZ	6:v:53:THR:HG23	1.82	0.44
2:2:30:SER:HB2	1:Y:123:ALA:HB1	2.00	0.43
3:D:255:ARG:HB3	3:D:265:GLY:HA3	2.00	0.43
3:E:42:LEU:HD23	3:E:139:VAL:HG11	1.98	0.43
3:E:112:MET:O	3:E:116:ILE:HG12	2.18	0.43
3:F:192:GLU:C	3:F:196:LYS:HZ3	2.25	0.43
3:G:58:TRP:CE3	3:G:284:GLU:HA	2.53	0.43
3:I:395:GLU:O	3:I:399:PRO:HG2	2.17	0.43
3:J:102:GLY:O	3:J:106:VAL:HG23	2.19	0.43
3:J:231:GLU:HA	3:J:236:GLU:HA	2.00	0.43
3:J:323:ARG:NH2	3:J:326:ASP:OD2	2.38	0.43
3:K:112:MET:O	3:K:116:ILE:HG12	2.18	0.43
3:K:370:THR:O	3:K:374:ILE:HG12	2.18	0.43
3:L:110:LEU:HG	3:L:424:PRO:HG2	2.00	0.43
3:L:255:ARG:HB3	3:L:265:GLY:HA3	2.00	0.43
4:Q:69:LEU:HD11	4:Q:121:ILE:HD11	1.98	0.43
4:Q:141:LYS:HE2	4:Q:141:LYS:HB3	1.66	0.43
4:T:6:MET:HB3	5:m:27:LEU:O	2.18	0.43
4:X:104:TYR:HD1	4:X:111:ASP:HB3	1.82	0.43
1:Y:39:MET:SD	6:w:183:SER:HB3	2.58	0.43
5:e:34:VAL:HG11	5:e:50:TYR:CE2	2.53	0.43
5:e:34:VAL:HG12	5:e:46:ILE:HG22	1.99	0.43
6:s:163:ARG:NH2	1:z:129:LEU:HD11	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:s:719:TYR:CZ	6:s:728:LYS:HE3	2.53	0.43
6:t:350:ASP:OD1	6:t:351:VAL:N	2.50	0.43
6:t:502:SER:HB2	6:t:515:LEU:HD21	1.99	0.43
6:t:557:ILE:HG22	6:t:558:SER:H	1.82	0.43
6:u:22:LEU:HD23	6:v:779:ILE:HD12	2.00	0.43
6:u:334:ASP:OD1	6:u:334:ASP:N	2.51	0.43
6:u:643:PHE:CE2	6:u:656:LEU:HB2	2.53	0.43
6:w:304:LEU:O	6:w:305:TRP:HB2	2.18	0.43
6:w:369:SER:HB3	6:w:377:PHE:CE1	2.52	0.43
6:w:502:SER:HB2	6:w:515:LEU:HD21	1.99	0.43
6:w:621:ILE:HG13	6:w:622:TYR:N	2.32	0.43
6:x:269:ILE:HD11	6:x:282:VAL:HG22	1.99	0.43
2:AB:29:VAL:HG23	1:z:60:LEU:HG	2.00	0.43
3:B:146:TYR:CD1	3:B:251:TYR:CE1	3.06	0.43
3:C:160:LEU:H	3:C:160:LEU:HD23	1.83	0.43
3:J:399:PRO:O	3:J:403:VAL:HG23	2.17	0.43
3:K:78:PHE:CZ	3:K:130:LEU:HD13	2.53	0.43
3:K:184:GLN:HB2	3:L:172:ALA:HB3	2.00	0.43
4:V:151:PHE:CD2	4:V:151:PHE:O	2.71	0.43
5:c:79:THR:HB	5:c:109:VAL:HG22	2.00	0.43
5:m:52:PHE:CD2	5:m:58:ILE:HG22	2.54	0.43
5:q:84:ARG:HG3	5:q:84:ARG:NH1	2.33	0.43
6:s:163:ARG:HD2	6:s:163:ARG:N	2.33	0.43
6:s:343:PHE:HB3	6:s:362:SER:HB2	2.00	0.43
6:s:716:PHE:CE1	6:s:718:ILE:HD11	2.53	0.43
6:u:705:ARG:HA	6:u:757:VAL:H	1.82	0.43
6:v:98:VAL:HG12	6:v:320:PHE:HB2	2.00	0.43
6:v:168:HIS:HA	6:v:172:LYS:O	2.18	0.43
6:w:350:ASP:OD1	6:w:351:VAL:N	2.51	0.43
6:x:194:GLN:OE1	6:x:217:GLN:O	2.36	0.43
6:x:281:TYR:HB2	6:x:294:THR:O	2.18	0.43
6:x:355:ARG:HD2	6:x:430:LEU:HB2	2.00	0.43
6:x:705:ARG:HA	6:x:757:VAL:H	1.83	0.43
1:y:105:GLN:O	1:y:109:GLU:HG2	2.17	0.43
1:0:31:THR:HB	1:0:35:ARG:NH1	2.33	0.43
3:B:142:ASN:ND2	3:B:265:GLY:H	2.15	0.43
3:D:74:MET:HG3	3:D:131:PHE:CD1	2.53	0.43
3:K:309:ARG:HB3	4:M:181:TYR:CZ	2.53	0.43
3:L:34:CYS:O	3:L:38:THR:HG22	2.19	0.43
4:O:4:TYR:HB3	4:O:45:ARG:HG2	2.00	0.43
4:O:57:ARG:NH2	4:P:166:GLU:OE2	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:b:13:LEU:HD12	5:b:20:PHE:CZ	2.53	0.43
5:f:95:ARG:HG3	5:f:98:ASP:H	1.83	0.43
5:i:44:LEU:HB2	5:i:50:TYR:HE2	1.83	0.43
5:q:58:ILE:HD13	5:q:75:LEU:HD21	2.01	0.43
6:s:281:TYR:HB2	6:s:294:THR:O	2.18	0.43
6:s:589:PRO:HG2	6:s:590:TYR:CD1	2.53	0.43
6:t:531:LEU:HD23	6:t:532:ASN:OD1	2.17	0.43
6:u:68:LEU:HD12	6:u:78:TYR:HE1	1.83	0.43
6:u:343:PHE:HB3	6:u:362:SER:HB2	2.00	0.43
6:u:707:TRP:CG	6:u:752:GLN:HE21	2.36	0.43
6:v:314:ARG:HB2	6:v:320:PHE:CE2	2.54	0.43
6:v:695:THR:H	6:w:9:LYS:HZ1	1.66	0.43
6:w:707:TRP:CG	6:w:752:GLN:HE21	2.37	0.43
1:0:35:ARG:NH2	2:AC:11:LYS:HE2	2.32	0.43
1:0:61:GLU:OE2	1:z:119:ARG:NH1	2.50	0.43
1:0:105:GLN:O	1:0:109:GLU:HG2	2.17	0.43
2:4:11:LYS:HG2	2:4:14:THR:HB	1.99	0.43
2:6:13:ASP:HB2	6:x:433:LYS:O	2.17	0.43
2:AB:22:PRO:HB2	1:z:125:PHE:CE2	2.53	0.43
3:B:147:LEU:O	3:B:147:LEU:HD12	2.19	0.43
3:C:155:TYR:OH	3:D:394:GLN:NE2	2.48	0.43
3:C:300:VAL:HG11	3:C:308:PRO:HG3	2.01	0.43
3:D:305:ILE:HD12	3:D:323:ARG:HD3	2.01	0.43
3:D:419:LYS:HD3	3:D:419:LYS:HA	1.83	0.43
3:F:88:ILE:HG12	3:F:106:VAL:HG11	1.99	0.43
3:H:34:CYS:O	3:H:38:THR:HG22	2.18	0.43
3:H:68:ASN:ND2	3:H:357:MET:O	2.41	0.43
3:J:201:GLN:NE2	3:J:202:GLY:O	2.51	0.43
3:K:112:MET:HE3	3:K:112:MET:HB3	1.91	0.43
3:K:305:ILE:HD13	4:N:169:ARG:HD2	2.00	0.43
3:L:88:ILE:HG12	3:L:106:VAL:HG11	2.00	0.43
4:P:98:ASN:ND2	4:Q:129:GLU:HA	2.33	0.43
5:h:35:THR:HG22	5:h:43:VAL:HA	2.00	0.43
5:l:87:ASP:OD1	5:l:88:PHE:N	2.52	0.43
5:n:58:ILE:HD13	5:n:75:LEU:HD21	1.99	0.43
6:s:741:LEU:HD23	6:s:741:LEU:O	2.19	0.43
6:t:161:TYR:OH	6:t:188:VAL:HA	2.18	0.43
6:t:304:LEU:O	6:t:305:TRP:HB2	2.18	0.43
6:t:497:PRO:HD3	6:t:524:PHE:CZ	2.54	0.43
6:t:688:ALA:O	6:t:692:SER:OG	2.28	0.43
6:u:190:ASN:HA	6:u:195:TRP:CE3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:v:35:TRP:CD1	6:v:37:SER:HB3	2.53	0.43
6:v:370:ARG:HG2	6:v:390:PRO:HD3	2.00	0.43
6:v:741:LEU:HD23	6:v:741:LEU:O	2.19	0.43
6:w:497:PRO:HD3	6:w:524:PHE:CZ	2.54	0.43
6:w:504:CYS:O	6:w:513:SER:N	2.33	0.43
6:x:720:VAL:HG11	6:x:757:VAL:HG23	2.00	0.43
3:A:354:PHE:CE2	3:L:64:ARG:HG3	2.53	0.43
3:A:397:GLN:O	3:A:401:VAL:HG23	2.18	0.43
3:A:398:LEU:HD21	3:A:402:ARG:NH2	2.32	0.43
3:G:130:LEU:HA	3:G:130:LEU:HD23	1.73	0.43
3:L:215:THR:HG21	3:L:251:TYR:OH	2.18	0.43
4:S:64:GLU:OE1	4:S:123:ARG:NH2	2.52	0.43
5:c:10:THR:HA	5:c:74:GLU:HA	2.01	0.43
5:k:13:LEU:HD12	5:k:20:PHE:CZ	2.53	0.43
5:l:79:THR:HB	5:l:109:VAL:HG22	1.99	0.43
6:s:216:GLY:HA3	6:s:219:PHE:CE1	2.53	0.43
6:s:377:PHE:C	6:s:390:PRO:HG3	2.44	0.43
6:s:588:GLU:N	6:s:668:TYR:OH	2.51	0.43
6:u:417:SER:O	6:u:418:ASP:C	2.61	0.43
6:v:424:LEU:HD12	6:v:436:GLU:O	2.19	0.43
6:w:618:ILE:HA	6:w:621:ILE:HG12	2.00	0.43
6:w:646:PRO:HG2	6:w:650:TRP:H	1.83	0.43
6:x:370:ARG:HG3	6:x:390:PRO:HD3	1.99	0.43
2:AA:13:ASP:O	2:AA:17:ILE:HD12	2.19	0.43
3:C:288:LYS:NZ	4:P:194:LEU:HD13	2.33	0.43
3:E:24:ARG:HH21	3:E:164:SER:HA	1.82	0.43
3:E:149:GLU:OE1	3:E:150:PRO:HD2	2.18	0.43
3:F:430:LEU:HA	3:F:433:ILE:HD13	2.00	0.43
3:G:279:LEU:HB2	3:G:348:ILE:HG21	2.00	0.43
3:I:17:TYR:OH	3:I:165:SER:O	2.30	0.43
3:K:268:TYR:O	3:K:271:GLU:HG2	2.19	0.43
3:L:38:THR:HG23	3:L:39:ILE:H	1.83	0.43
4:O:2:ARG:NH1	4:O:2:ARG:HB2	2.34	0.43
4:U:151:PHE:CZ	6:t:788:LEU:HD23	2.54	0.43
4:X:144:ARG:NH1	4:X:157:GLU:OE2	2.51	0.43
5:c:87:ASP:OD1	5:c:88:PHE:N	2.50	0.43
5:g:94:LEU:HD11	6:v:743:ALA:HB2	2.01	0.43
5:m:81:THR:HG21	5:o:111:GLU:HB2	2.01	0.43
5:p:13:LEU:O	5:p:17:ASN:ND2	2.51	0.43
5:q:7:THR:HG23	5:q:8:VAL:HG23	2.00	0.43
6:t:183:SER:HB3	1:z:39:MET:SD	2.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:t:257:LEU:HD21	6:t:267:VAL:HG11	2.01	0.43
6:t:352:PHE:CE2	6:t:368:LEU:HD21	2.54	0.43
6:t:424:LEU:HD11	6:t:435:VAL:HG22	2.00	0.43
6:t:707:TRP:CG	6:t:752:GLN:HE21	2.37	0.43
6:u:163:ARG:HD2	6:u:163:ARG:N	2.34	0.43
6:u:497:PRO:HG2	6:u:519:ASP:HB2	2.01	0.43
6:u:589:PRO:HG2	6:u:590:TYR:CD1	2.53	0.43
6:v:134:ALA:HB3	6:v:343:PHE:O	2.18	0.43
6:v:773:THR:O	6:v:773:THR:HG22	2.19	0.43
6:w:302:GLN:NE2	6:w:329:PRO:HG3	2.33	0.43
1:1:35:ARG:NE	2:AD:11:LYS:HD3	2.33	0.43
2:3:25:LEU:O	1:Z:112:MET:HG2	2.18	0.43
2:9:55:LYS:HA	6:v:123:ASP:HB2	2.01	0.43
3:C:61:VAL:HG21	3:C:349:GLU:HG2	2.00	0.43
3:C:132:GLU:HG2	3:C:160:LEU:HD11	2.00	0.43
3:F:405:LEU:O	3:F:409:GLN:HG3	2.18	0.43
3:G:417:LEU:HB3	3:G:421:ALA:HB3	1.99	0.43
3:H:39:ILE:HB	3:H:42:LEU:HD23	2.01	0.43
3:J:409:GLN:HG3	3:J:422:VAL:CG1	2.49	0.43
3:K:149:GLU:OE1	3:K:150:PRO:HD2	2.19	0.43
4:M:71:PRO:HD3	4:M:116:GLY:HA2	2.01	0.43
4:O:76:ASN:O	4:O:113:PHE:N	2.41	0.43
4:W:61:PHE:HE2	4:W:130:MET:HE3	1.83	0.43
1:Z:98:ILE:O	1:Z:102:THR:HG22	2.19	0.43
5:e:94:LEU:CD2	6:w:741:LEU:HD11	2.48	0.43
5:k:26:TYR:HE2	5:k:29:ARG:HD3	1.83	0.43
5:k:60:LEU:O	5:k:61:THR:OG1	2.30	0.43
6:s:430:LEU:HD11	6:s:435:VAL:HG23	2.00	0.43
6:t:301:ASP:OD1	6:t:301:ASP:N	2.46	0.43
6:u:281:TYR:HB2	6:u:294:THR:O	2.18	0.43
6:v:549:VAL:CG1	6:v:565:LEU:HD12	2.49	0.43
6:v:599:ARG:HD2	6:v:666:MET:HE1	2.00	0.43
6:w:567:ASN:HB2	6:w:572:PHE:CE2	2.52	0.43
1:0:91:GLU:HB2	6:x:396:SER:HB2	1.99	0.43
3:A:160:LEU:HD23	3:A:160:LEU:H	1.83	0.43
3:B:142:ASN:HB3	3:B:166:TYR:OH	2.19	0.43
3:B:295:LYS:HE2	3:B:297:ILE:HD11	2.00	0.43
3:B:419:LYS:HA	3:B:419:LYS:HD3	1.86	0.43
3:C:134:LEU:HD23	3:C:134:LEU:HA	1.86	0.43
3:E:268:TYR:O	3:E:271:GLU:HG2	2.19	0.43
3:H:129:THR:OG1	3:H:158:MET:HE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:T:14:LEU:HD13	4:T:32:LEU:HG	2.01	0.43
4:U:32:LEU:HD13	4:U:44:ARG:HD2	2.01	0.43
5:c:46:ILE:HA	5:c:50:TYR:CZ	2.54	0.43
5:g:34:VAL:HG23	5:g:75:LEU:HB3	2.01	0.43
5:i:44:LEU:HB2	5:i:50:TYR:CE2	2.54	0.43
5:n:31:PHE:CD1	5:n:79:THR:HA	2.54	0.43
5:o:91:GLY:O	5:o:92:SER:OG	2.26	0.43
6:s:9:LYS:HZ1	6:x:695:THR:H	1.66	0.43
6:s:134:ALA:HB3	6:s:343:PHE:O	2.18	0.43
6:s:138:THR:O	6:s:139:LYS:HG2	2.18	0.43
6:v:78:TYR:HE2	6:v:564:ILE:HG23	1.83	0.43
6:v:121:VAL:O	6:v:122:ALA:C	2.62	0.43
6:v:263:ASN:HA	6:v:286:ALA:HB2	2.00	0.43
6:v:510:ASN:HB3	6:v:528:PHE:O	2.18	0.43
6:w:184:GLN:HG3	6:w:186:GLU:H	1.83	0.43
6:w:567:ASN:N	6:w:570:ASN:O	2.52	0.43
6:w:589:PRO:HG2	6:w:590:TYR:CD1	2.54	0.43
6:x:117:ARG:HD2	6:x:130:ARG:NH2	2.34	0.43
6:x:432:SER:HA	6:x:435:VAL:CG1	2.49	0.43
2:7:39:ASP:OD2	1:Y:36:ARG:HB3	2.19	0.43
3:A:117:ILE:HG23	3:A:404:LEU:HD23	2.01	0.43
3:D:39:ILE:HD12	3:D:66:LEU:HD23	2.01	0.43
3:E:68:ASN:HD22	3:E:358:LEU:HD23	1.84	0.43
3:F:186:ALA:HA	3:F:210:THR:HA	2.01	0.43
3:J:74:MET:HG3	3:J:131:PHE:HD1	1.83	0.43
3:J:295:LYS:NZ	4:W:187:ASP:OD2	2.50	0.43
3:J:357:MET:HE1	3:J:381:LEU:HD23	2.01	0.43
4:O:1:MET:O	4:P:9:GLU:HB2	2.18	0.43
4:R:6:MET:HE3	5:p:27:LEU:HD22	2.01	0.43
4:S:8:VAL:HG22	4:T:4:TYR:HB2	2.01	0.43
1:Y:137:SER:O	1:Y:141:GLU:HG2	2.19	0.43
5:b:26:TYR:HE2	5:b:29:ARG:HD3	1.83	0.43
6:s:564:ILE:HG22	6:s:573:LEU:HG	2.01	0.43
6:t:343:PHE:HE2	6:t:367:ILE:HG21	1.83	0.43
6:u:121:VAL:O	6:u:122:ALA:C	2.61	0.43
6:x:426:ALA:CB	6:x:430:LEU:HA	2.49	0.43
2:5:32:VAL:HG11	6:s:160:GLN:HE21	1.84	0.43
3:C:315:GLN:HG3	3:C:316:THR:H	1.82	0.43
3:G:76:ALA:HB2	3:G:377:VAL:HG12	2.00	0.43
3:H:215:THR:HG21	3:H:251:TYR:OH	2.19	0.43
3:I:316:THR:HG23	4:X:184:LEU:HD12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:V:184:LEU:HB3	4:V:194:LEU:HD11	2.01	0.43
4:X:52:ARG:HG3	4:X:124:LEU:HD13	2.01	0.43
5:b:13:LEU:HD12	5:b:20:PHE:HZ	1.83	0.43
5:k:51:ARG:NH2	5:k:59:SER:OG	2.52	0.43
6:s:47:PRO:HD2	6:s:591:ARG:HH21	1.84	0.43
6:t:49:VAL:HG11	6:t:584:ASP:HB3	2.01	0.43
6:t:450:ARG:NE	6:t:501:PHE:HA	2.34	0.43
6:u:104:SER:HB2	6:u:105:ASN:H	1.53	0.43
6:v:422:PHE:CD1	6:v:437:LEU:HD21	2.54	0.43
6:v:502:SER:HB3	6:v:515:LEU:HD21	2.01	0.43
6:w:258:PRO:HG2	6:w:291:TRP:CZ2	2.54	0.43
6:w:450:ARG:NE	6:w:501:PHE:HA	2.34	0.43
6:w:716:PHE:CD1	6:w:768:ILE:HD11	2.54	0.43
6:x:121:VAL:O	6:x:122:ALA:C	2.61	0.43
6:x:450:ARG:NE	6:x:500:VAL:O	2.45	0.43
1:1:112:MET:HG2	2:7:25:LEU:O	2.19	0.42
2:3:11:LYS:HE2	2:3:14:THR:HB	2.00	0.42
3:A:282:LEU:HD21	3:L:290:SER:HB2	2.01	0.42
2:AA:52:LYS:HA	2:AA:52:LYS:HD2	1.76	0.42
3:C:27:TYR:CE2	3:C:264:TYR:HB2	2.54	0.42
3:E:267:SER:O	3:E:270:GLU:HG2	2.18	0.42
3:I:92:GLU:O	3:I:96:LEU:N	2.42	0.42
3:K:378:ALA:HB1	3:K:389:TYR:CE1	2.53	0.42
4:P:151:PHE:CD2	4:P:151:PHE:O	2.71	0.42
4:W:60:THR:N	4:W:175:GLU:OE2	2.44	0.42
5:b:31:PHE:CD1	5:b:79:THR:HA	2.54	0.42
5:k:101:VAL:HA	5:k:104:ILE:HG22	2.00	0.42
5:l:51:ARG:NH1	5:l:59:SER:OG	2.52	0.42
5:n:35:THR:OG1	5:n:74:GLU:HB3	2.19	0.42
6:s:239:TYR:CD1	1:z:129:LEU:HD13	2.53	0.42
6:s:707:TRP:HB3	6:s:754:ARG:HG2	2.01	0.42
6:s:734:ALA:HB3	6:s:741:LEU:HB2	2.01	0.42
6:t:433:LYS:H	6:t:433:LYS:HG2	1.59	0.42
6:t:716:PHE:CD1	6:t:768:ILE:HD11	2.54	0.42
6:v:81:PHE:HD2	6:v:116:LEU:HG	1.83	0.42
6:v:216:GLY:HA3	6:v:219:PHE:CE1	2.53	0.42
6:w:15:ILE:HD11	6:w:31:GLN:H	1.83	0.42
6:x:675:PHE:O	6:x:769:LEU:HA	2.19	0.42
3:A:272:TYR:CE2	3:A:355:ALA:HB1	2.54	0.42
3:G:160:LEU:HD23	3:G:160:LEU:H	1.84	0.42
3:I:17:TYR:HB2	3:I:180:VAL:HG11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:160:LEU:HD23	3:I:160:LEU:H	1.84	0.42
3:L:299:LEU:N	3:L:328:SER:O	2.50	0.42
4:P:99:ARG:NH2	4:P:111:ASP:OD2	2.52	0.42
4:Q:76:ASN:ND2	4:Q:114:ASP:OD1	2.52	0.42
4:W:76:ASN:O	4:W:113:PHE:N	2.46	0.42
1:Y:107:ILE:HD12	6:v:277:ALA:HB2	1.99	0.42
1:Y:139:ILE:HA	1:Y:142:ILE:HD12	2.01	0.42
5:a:81:THR:HG23	5:c:107:MET:SD	2.60	0.42
5:k:13:LEU:HG	5:k:15:GLY:O	2.18	0.42
5:k:34:VAL:HG21	5:k:50:TYR:HE2	1.83	0.42
5:p:108:HIS:O	5:p:111:GLU:HB2	2.19	0.42
6:s:49:VAL:HG23	6:s:597:LYS:HB2	2.00	0.42
6:s:502:SER:HB3	6:s:515:LEU:HD21	2.01	0.42
6:t:11:LEU:HD13	6:t:42:LEU:HD12	2.01	0.42
6:t:195:TRP:HE3	6:t:196:LEU:HD22	1.84	0.42
6:t:450:ARG:NE	6:t:500:VAL:O	2.47	0.42
6:t:643:PHE:HZ	6:t:658:LEU:HD23	1.84	0.42
6:u:301:ASP:HA	6:u:330:LYS:HG2	2.02	0.42
6:u:629:GLY:H	6:u:645:GLN:HG3	1.84	0.42
6:v:281:TYR:HB2	6:v:294:THR:O	2.19	0.42
6:w:160:GLN:HG2	6:w:239:TYR:CZ	2.54	0.42
6:x:704:ARG:N	6:x:784:GLU:O	2.38	0.42
1:1:98:ILE:O	1:1:102:THR:HG22	2.19	0.42
2:7:11:LYS:HG2	2:7:14:THR:HB	2.02	0.42
3:A:93:ALA:HB2	3:L:412:GLN:HG2	2.00	0.42
3:C:255:ARG:HB3	3:C:265:GLY:CA	2.50	0.42
3:D:218:TYR:HE2	3:D:227:LEU:HD12	1.84	0.42
3:D:227:LEU:HD22	3:D:243:THR:HG22	2.01	0.42
3:I:27:TYR:CE2	3:I:264:TYR:HB2	2.54	0.42
4:S:53:GLN:NE2	4:S:57:ARG:HH21	2.17	0.42
5:c:36:LEU:HD12	5:c:42:LYS:HD3	2.02	0.42
5:d:81:THR:HG23	5:f:107:MET:SD	2.59	0.42
5:l:93:ILE:HG22	6:u:745:ARG:O	2.19	0.42
5:n:22:ILE:O	5:n:22:ILE:HG13	2.19	0.42
6:s:160:GLN:HG3	6:s:160:GLN:O	2.19	0.42
6:s:497:PRO:O	6:s:498:ASN:HB2	2.19	0.42
6:s:681:LYS:HZ2	6:s:765:THR:HG22	1.83	0.42
6:t:22:LEU:HD23	6:u:779:ILE:HD12	2.02	0.42
6:u:382:ILE:HD13	6:u:382:ILE:HA	1.90	0.42
6:w:35:TRP:CD1	6:w:37:SER:HB3	2.53	0.42
6:w:195:TRP:HE3	6:w:196:LEU:HD22	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:w:549:VAL:HG11	6:w:565:LEU:HD12	2.01	0.42
6:w:599:ARG:HG3	6:w:668:TYR:HE1	1.84	0.42
6:x:467:PHE:CB	6:x:494:ASN:HA	2.49	0.42
6:x:716:PHE:HE1	6:x:718:ILE:HD11	1.83	0.42
3:C:118:MET:HA	3:C:121:ILE:HG22	2.02	0.42
3:F:38:THR:HG23	3:F:39:ILE:H	1.84	0.42
3:I:305:ILE:HD12	3:I:323:ARG:HE	1.84	0.42
3:K:321:THR:HG21	4:N:173:GLU:HB3	2.01	0.42
4:T:148:ASN:ND2	4:U:159:VAL:HG11	2.34	0.42
4:U:84:TYR:CE1	4:U:121:ILE:HD13	2.55	0.42
5:n:13:LEU:HG	5:n:15:GLY:O	2.19	0.42
6:s:714:GLY:HA3	6:s:774:THR:HG21	2.00	0.42
6:u:29:SER:HB3	6:u:678:GLU:HG2	2.02	0.42
6:u:495:TYR:OH	6:u:542:HIS:ND1	2.35	0.42
6:w:354:PHE:HE1	6:w:430:LEU:HD13	1.83	0.42
6:w:557:ILE:HG22	6:w:558:SER:H	1.84	0.42
6:x:618:ILE:O	6:x:621:ILE:HG12	2.19	0.42
6:x:703:LEU:CD1	6:x:757:VAL:HG13	2.50	0.42
3:C:382:GLU:OE1	3:C:389:TYR:HB3	2.19	0.42
3:G:17:TYR:HB2	3:G:180:VAL:HG11	2.01	0.42
3:G:227:LEU:HG	3:G:243:THR:HG22	2.01	0.42
3:K:37:TYR:CE2	3:K:277:ARG:HA	2.54	0.42
3:L:142:ASN:ND2	3:L:255:ARG:HG2	2.35	0.42
4:N:14:LEU:HD13	4:N:32:LEU:HG	2.01	0.42
4:S:137:TRP:CZ2	4:S:168:ARG:HG3	2.54	0.42
1:Z:46:ASN:HB3	6:v:161:TYR:CE1	2.54	0.42
5:d:7:THR:HG22	5:d:77:ARG:HH22	1.82	0.42
5:d:18:ARG:NE	5:d:60:LEU:O	2.53	0.42
5:g:40:ASP:OD2	5:g:40:ASP:N	2.53	0.42
5:k:18:ARG:NE	5:k:63:ALA:H	2.17	0.42
5:k:104:ILE:HG12	5:k:108:HIS:CE1	2.55	0.42
5:m:62:LYS:HB3	5:m:62:LYS:HE2	1.78	0.42
5:q:94:LEU:O	6:s:732:ALA:HB3	2.19	0.42
6:s:304:LEU:O	6:s:305:TRP:HB2	2.20	0.42
6:t:54:LEU:HD22	6:t:89:PHE:CG	2.55	0.42
6:v:302:GLN:HG3	6:v:303:VAL:O	2.19	0.42
6:v:497:PRO:O	6:v:498:ASN:HB2	2.20	0.42
6:v:567:ASN:N	6:v:570:ASN:O	2.52	0.42
6:v:707:TRP:HB3	6:v:754:ARG:HG2	2.00	0.42
6:w:483:LYS:HE2	6:w:483:LYS:HB3	1.88	0.42
6:x:554:CYS:HB2	6:x:561:MET:CE	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:69:LEU:HD22	3:D:385:LEU:HD11	2.01	0.42
3:D:192:GLU:HG3	3:D:196:LYS:HZ3	1.85	0.42
3:D:295:LYS:HE2	3:D:297:ILE:HD11	2.00	0.42
3:E:87:THR:O	3:E:425:THR:N	2.52	0.42
3:E:305:ILE:HD13	4:T:169:ARG:HD2	2.00	0.42
3:F:268:TYR:CZ	3:F:385:LEU:HD23	2.54	0.42
3:L:419:LYS:HA	3:L:419:LYS:HD3	1.86	0.42
4:R:45:ARG:HG3	4:R:46:ILE:N	2.34	0.42
4:U:7:ASN:HA	5:j:55:ARG:HH22	1.84	0.42
4:V:6:MET:HE1	5:j:101:VAL:HG22	2.02	0.42
4:W:2:ARG:HG2	4:X:8:VAL:O	2.19	0.42
5:e:13:LEU:HG	5:e:15:GLY:O	2.19	0.42
5:h:87:ASP:N	5:h:87:ASP:OD1	2.49	0.42
5:q:13:LEU:HD12	5:q:20:PHE:HE2	1.84	0.42
6:t:160:GLN:O	6:t:160:GLN:HG3	2.19	0.42
6:t:266:MET:HB3	6:t:266:MET:HE3	1.81	0.42
6:t:738:SER:O	6:t:739:ASN:C	2.62	0.42
6:u:260:ASN:C	6:u:260:ASN:ND2	2.78	0.42
6:u:567:ASN:HD21	6:u:627:GLY:N	2.18	0.42
6:v:426:ALA:CB	6:v:430:LEU:HA	2.50	0.42
6:w:313:VAL:O	6:w:321:ASP:N	2.46	0.42
6:w:406:ALA:HB1	6:w:413:LEU:HD11	2.02	0.42
6:x:257:LEU:HD23	6:x:257:LEU:HA	1.90	0.42
6:x:350:ASP:OD1	6:x:351:VAL:N	2.52	0.42
6:x:368:LEU:HB2	6:x:391:ILE:HG12	2.02	0.42
2:9:27:GLN:HB3	1:Z:118:ARG:NH2	2.35	0.42
3:E:300:VAL:HG21	4:S:176:MET:SD	2.59	0.42
3:E:378:ALA:HB1	3:E:389:TYR:CE2	2.53	0.42
3:F:137:LEU:HD13	3:F:392:LEU:HD11	2.02	0.42
3:I:64:ARG:HG3	3:J:354:PHE:CE2	2.55	0.42
4:U:54:ILE:HD11	4:U:141:LYS:HD3	2.01	0.42
5:l:51:ARG:HB3	5:l:51:ARG:CZ	2.49	0.42
5:o:29:ARG:NH1	6:t:609:ASP:HB3	2.35	0.42
5:q:50:TYR:CE2	5:q:58:ILE:HD12	2.55	0.42
6:s:617:HIS:CD2	6:s:620:THR:HG23	2.54	0.42
6:s:748:LEU:HD23	6:s:748:LEU:H	1.85	0.42
6:t:15:ILE:HD11	6:t:31:GLN:H	1.85	0.42
6:t:406:ALA:HA	6:t:414:LEU:O	2.19	0.42
6:u:703:LEU:CD1	6:u:757:VAL:HG13	2.49	0.42
6:v:13:GLY:HA3	6:v:26:ASP:O	2.19	0.42
6:v:47:PRO:HD2	6:v:591:ARG:HH21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:v:308:MET:HE3	6:v:309:PRO:HD2	2.02	0.42
6:v:718:ILE:HG21	6:v:755:PHE:CZ	2.55	0.42
6:w:143:LEU:N	6:w:297:TRP:O	2.43	0.42
6:w:406:ALA:HA	6:w:414:LEU:O	2.19	0.42
6:x:69:ILE:HD11	6:x:79:ALA:HB2	2.00	0.42
3:B:73:LEU:HD23	3:B:381:LEU:HD13	2.01	0.42
3:B:134:LEU:O	3:B:138:VAL:HG23	2.20	0.42
3:C:85:ARG:NH2	3:C:434:GLY:O	2.50	0.42
3:C:393:SER:O	3:C:397:GLN:N	2.47	0.42
3:F:274:GLY:O	4:R:196:ARG:HD2	2.20	0.42
3:F:412:GLN:HG2	3:G:93:ALA:HB2	2.02	0.42
3:G:87:THR:O	3:G:425:THR:N	2.51	0.42
3:G:176:VAL:O	3:G:226:TYR:OH	2.35	0.42
3:G:231:GLU:HA	3:G:236:GLU:HA	2.02	0.42
3:J:128:VAL:HG11	3:K:394:GLN:HG3	2.01	0.42
3:J:414:ILE:HG22	3:J:416:GLU:HG2	2.01	0.42
4:N:98:ASN:ND2	4:O:129:GLU:HA	2.34	0.42
4:N:148:ASN:ND2	4:O:159:VAL:HG11	2.35	0.42
4:O:53:GLN:NE2	4:O:57:ARG:HH21	2.17	0.42
4:R:98:ASN:ND2	4:S:129:GLU:HA	2.35	0.42
5:c:47:ASN:OD1	5:c:48:THR:N	2.53	0.42
5:i:18:ARG:HG2	5:i:59:SER:HB2	2.02	0.42
5:i:51:ARG:HB3	5:i:51:ARG:CZ	2.48	0.42
5:r:54:THR:OG1	5:r:57:THR:HG22	2.19	0.42
6:s:81:PHE:HD2	6:s:116:LEU:HG	1.84	0.42
6:s:707:TRP:CG	6:s:752:GLN:HE21	2.38	0.42
6:t:260:ASN:C	6:t:260:ASN:ND2	2.78	0.42
6:t:646:PRO:HG2	6:t:650:TRP:H	1.85	0.42
6:t:762:LYS:HE2	6:t:762:LYS:HB2	1.84	0.42
6:t:773:THR:HG22	6:t:773:THR:O	2.19	0.42
6:u:143:LEU:HB3	6:u:146:TYR:HB2	2.02	0.42
6:u:190:ASN:HB3	6:u:195:TRP:HZ3	1.84	0.42
6:v:748:LEU:HD23	6:v:748:LEU:H	1.85	0.42
6:w:260:ASN:C	6:w:260:ASN:ND2	2.78	0.42
6:w:301:ASP:HA	6:w:330:LYS:HG2	2.01	0.42
6:w:334:ASP:OD1	6:w:334:ASP:N	2.52	0.42
6:x:72:ASP:OD1	6:x:73:GLU:N	2.52	0.42
6:x:134:ALA:HB3	6:x:343:PHE:O	2.19	0.42
6:x:768:ILE:HD13	6:x:778:ILE:HD11	2.02	0.42
1:z:81:ILE:HD13	1:z:102:THR:HG21	2.01	0.42
1:0:129:LEU:HD13	6:x:239:TYR:HD1	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:13:ALA:HB3	3:B:231:GLU:OE2	2.20	0.42
3:D:16:VAL:HG11	3:D:216:HIS:CE1	2.53	0.42
3:D:39:ILE:HB	3:D:42:LEU:HD23	2.00	0.42
3:D:314:ALA:HB1	3:D:318:ASP:HB3	2.02	0.42
3:E:397:GLN:O	3:E:401:VAL:HG23	2.20	0.42
3:H:385:LEU:HB3	3:H:388:VAL:HG22	2.01	0.42
3:I:430:LEU:HD23	3:I:430:LEU:HA	1.89	0.42
3:J:427:SER:HB3	3:J:431:GLU:OE2	2.20	0.42
4:M:10:THR:HG22	4:M:12:ALA:H	1.85	0.42
4:T:151:PHE:CD2	4:T:151:PHE:O	2.73	0.42
4:T:191:SER:O	4:T:195:THR:HG23	2.20	0.42
4:U:73:VAL:HG23	4:U:74:TYR:HD1	1.84	0.42
1:Y:52:LEU:HB2	1:Y:128:GLN:HE21	1.85	0.42
5:d:60:LEU:HD23	5:d:64:TRP:CZ3	2.55	0.42
5:e:84:ARG:HH11	5:e:84:ARG:HG3	1.85	0.42
5:f:29:ARG:NH1	6:w:609:ASP:HB3	2.34	0.42
5:i:53:ALA:HB3	5:i:57:THR:HG23	2.02	0.42
5:l:66:PRO:HA	5:l:70:TYR:O	2.19	0.42
5:r:51:ARG:CZ	5:r:51:ARG:HB3	2.49	0.42
5:r:92:SER:HB2	6:s:639:LYS:HA	2.02	0.42
6:s:50:PHE:HD1	6:s:596:MET:SD	2.42	0.42
6:s:302:GLN:HG3	6:s:303:VAL:O	2.19	0.42
6:s:350:ASP:OD1	6:s:351:VAL:N	2.52	0.42
6:t:270:VAL:HG12	6:t:279:GLN:HG2	2.01	0.42
6:t:301:ASP:HA	6:t:330:LYS:HG2	2.01	0.42
6:t:705:ARG:HA	6:t:757:VAL:H	1.84	0.42
6:v:37:SER:OG	6:v:40:GLU:HB2	2.20	0.42
6:v:67:HIS:NE2	6:v:120:THR:OG1	2.39	0.42
6:w:398:ASN:O	6:x:122:ALA:HA	2.20	0.42
6:x:258:PRO:HG2	6:x:291:TRP:CZ2	2.55	0.42
6:x:740:THR:C	6:x:742:ARG:H	2.28	0.42
1:1:128:GLN:OE1	2:AD:22:PRO:HB3	2.19	0.42
3:C:409:GLN:HA	3:C:412:GLN:HG2	2.02	0.42
3:E:184:GLN:HB2	3:F:172:ALA:HB3	2.00	0.42
3:F:85:ARG:HB3	3:F:427:SER:HB2	2.01	0.42
3:G:300:VAL:HG12	3:G:327:ILE:CD1	2.50	0.42
3:I:117:ILE:HD13	3:I:408:LEU:HD12	2.01	0.42
3:J:8:LEU:HD23	3:J:8:LEU:HA	1.88	0.42
3:L:194:ILE:HD13	3:L:237:VAL:HG21	2.01	0.42
4:T:59:TRP:O	4:T:63:ILE:HD12	2.20	0.42
4:T:144:ARG:NH1	4:T:164:GLU:OE1	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:45:ARG:HG3	4:X:46:ILE:N	2.34	0.42
5:g:81:THR:HG21	5:i:111:GLU:HB2	2.02	0.42
5:p:94:LEU:HD11	6:s:743:ALA:HB2	2.02	0.42
6:s:143:LEU:HB3	6:s:146:TYR:HB2	2.00	0.42
6:s:214:ASN:OD1	6:s:221:HIS:HB3	2.20	0.42
6:t:42:LEU:O	6:t:777:ASN:HA	2.20	0.42
6:t:151:ASP:HB2	6:t:249:HIS:HE1	1.84	0.42
6:u:49:VAL:HG11	6:u:584:ASP:HB3	2.02	0.42
6:u:398:ASN:O	6:v:122:ALA:HA	2.20	0.42
6:v:138:THR:HG22	6:v:139:LYS:H	1.84	0.42
6:v:341:PRO:O	6:v:342:SER:OG	2.35	0.42
6:v:567:ASN:HB2	6:v:572:PHE:HE2	1.85	0.42
6:v:707:TRP:CG	6:v:752:GLN:HE21	2.38	0.42
6:w:426:ALA:CB	6:w:430:LEU:HA	2.50	0.42
6:x:86:ILE:HD11	6:x:107:ILE:HG13	2.02	0.42
6:x:204:MET:HE3	6:x:204:MET:HB2	1.89	0.42
2:AB:13:ASP:HB2	2:AB:16:GLN:HB2	2.01	0.41
3:B:399:PRO:O	3:B:403:VAL:HG23	2.20	0.41
3:G:92:GLU:O	3:G:96:LEU:N	2.44	0.41
3:H:414:ILE:HG22	3:H:416:GLU:H	1.85	0.41
4:M:137:TRP:CZ2	4:M:168:ARG:HG3	2.55	0.41
4:O:130:MET:HG3	4:O:131:PRO:HD2	2.00	0.41
4:T:51:ASN:OD1	4:T:55:GLN:NE2	2.50	0.41
5:k:85:LEU:HD23	5:k:85:LEU:HA	1.90	0.41
5:m:34:VAL:HG23	5:m:75:LEU:HB3	2.02	0.41
5:o:79:THR:HB	5:o:109:VAL:HG22	2.02	0.41
5:r:9:LEU:HD21	5:r:23:PRO:HD2	2.02	0.41
6:s:219:PHE:HE2	6:s:221:HIS:HB2	1.84	0.41
6:s:705:ARG:HD2	6:s:754:ARG:NH2	2.35	0.41
6:s:718:ILE:HG21	6:s:755:PHE:CZ	2.55	0.41
6:t:599:ARG:HG3	6:t:668:TYR:HE1	1.84	0.41
6:u:406:ALA:HA	6:u:414:LEU:O	2.20	0.41
6:u:716:PHE:CD1	6:u:768:ILE:HD11	2.55	0.41
6:v:23:ARG:NH2	6:v:29:SER:HA	2.35	0.41
6:v:174:VAL:HG13	6:v:207:ASN:HB2	2.01	0.41
6:v:497:PRO:HB2	6:v:518:GLY:HA3	2.02	0.41
6:v:586:GLN:HB2	6:v:599:ARG:HH11	1.85	0.41
6:x:684:ILE:HD13	6:x:783:TRP:HH2	1.84	0.41
2:5:11:LYS:HE2	2:5:14:THR:HB	2.01	0.41
3:C:92:GLU:O	3:C:96:LEU:N	2.41	0.41
3:D:398:LEU:HB3	3:D:399:PRO:HD3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:128:VAL:HG21	3:F:394:GLN:HG3	2.01	0.41
3:E:258:ARG:NE	3:E:395:GLU:OE2	2.43	0.41
3:G:82:THR:HA	3:G:118:MET:SD	2.60	0.41
3:H:292:ILE:HG21	4:U:183:MET:HE2	2.02	0.41
3:H:414:ILE:H	3:H:414:ILE:HD12	1.86	0.41
3:J:144:LEU:HB3	3:J:161:TYR:HB2	2.01	0.41
4:N:151:PHE:O	4:N:151:PHE:CD2	2.73	0.41
4:U:57:ARG:NH2	4:V:166:GLU:OE2	2.49	0.41
1:Z:67:LEU:HD23	1:Z:67:LEU:HA	1.95	0.41
5:c:51:ARG:HB3	5:c:51:ARG:CZ	2.50	0.41
5:i:62:LYS:O	5:i:62:LYS:HD3	2.20	0.41
5:r:94:LEU:HD23	5:r:94:LEU:HA	1.92	0.41
6:s:35:TRP:CD1	6:s:37:SER:HB3	2.55	0.41
6:s:124:TYR:CG	6:s:313:VAL:HG22	2.55	0.41
6:s:163:ARG:HH12	1:z:129:LEU:HD21	1.84	0.41
6:s:566:ARG:HA	6:s:571:THR:HA	2.01	0.41
6:u:134:ALA:HB3	6:u:343:PHE:O	2.19	0.41
6:u:424:LEU:HD12	6:u:436:GLU:O	2.20	0.41
6:u:554:CYS:HB2	6:u:561:MET:CE	2.50	0.41
6:v:214:ASN:OD1	6:v:221:HIS:HB3	2.20	0.41
6:v:617:HIS:CD2	6:v:620:THR:HG23	2.55	0.41
6:w:617:HIS:CD2	6:w:619:PRO:HD2	2.54	0.41
6:x:31:GLN:HB3	6:x:677:TYR:CD1	2.44	0.41
6:x:138:THR:HG22	6:x:139:LYS:N	2.35	0.41
6:x:716:PHE:CD2	6:x:776:LEU:HD13	2.55	0.41
2:8:17:ILE:HG13	6:w:185:PRO:HG3	2.02	0.41
2:8:55:LYS:HA	6:w:123:ASP:HB2	2.03	0.41
3:A:87:THR:O	3:A:425:THR:N	2.53	0.41
3:A:184:GLN:HB2	3:B:172:ALA:HB3	2.02	0.41
3:E:78:PHE:CZ	3:E:130:LEU:HD13	2.55	0.41
3:E:110:LEU:HD23	3:E:110:LEU:HA	1.92	0.41
3:F:219:LEU:HG	3:F:226:TYR:HE1	1.86	0.41
3:J:135:LYS:O	3:J:139:VAL:HG12	2.20	0.41
4:P:112:ARG:CD	5:p:18:ARG:HH22	2.32	0.41
4:P:136:TYR:OH	4:P:163:GLU:OE1	2.34	0.41
4:Q:2:ARG:HG2	4:R:9:GLU:HA	2.03	0.41
4:Q:53:GLN:O	4:Q:56:SER:OG	2.27	0.41
5:c:18:ARG:HG3	5:c:60:LEU:O	2.20	0.41
5:h:26:TYR:HE2	5:h:29:ARG:HD3	1.85	0.41
5:i:39:VAL:CG2	5:i:69:GLY:HA3	2.50	0.41
5:l:10:THR:HA	5:l:74:GLU:HA	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:l:47:ASN:OD1	5:l:48:THR:N	2.53	0.41
6:s:314:ARG:HB2	6:s:320:PHE:CE1	2.55	0.41
6:t:313:VAL:O	6:t:321:ASP:N	2.45	0.41
6:t:661:ASN:HD21	6:t:663:GLU:HB2	1.86	0.41
6:u:341:PRO:O	6:u:342:SER:OG	2.36	0.41
6:w:151:ASP:HB2	6:w:249:HIS:HE1	1.85	0.41
6:w:705:ARG:HA	6:w:757:VAL:H	1.84	0.41
6:x:157:ARG:NE	6:x:242:GLN:HB2	2.36	0.41
2:4:29:VAL:HG21	1:z:58:SER:HB3	2.02	0.41
2:9:17:ILE:HG13	6:v:185:PRO:HG3	2.03	0.41
3:A:120:TYR:CD2	3:A:404:LEU:HD11	2.55	0.41
3:A:300:VAL:HG12	3:A:327:ILE:CD1	2.50	0.41
3:D:414:ILE:H	3:D:414:ILE:HD12	1.84	0.41
3:E:357:MET:HE2	3:E:385:LEU:HD13	2.02	0.41
3:F:69:LEU:HD23	3:F:69:LEU:HA	1.92	0.41
3:H:146:TYR:HB3	3:H:161:TYR:HE1	1.84	0.41
3:H:268:TYR:CE1	3:H:385:LEU:HD23	2.55	0.41
3:K:110:LEU:HD23	3:K:110:LEU:HA	1.92	0.41
3:L:121:ILE:HD13	3:L:126:TYR:HD2	1.85	0.41
4:T:46:ILE:HD11	4:T:150:PHE:HE2	1.85	0.41
4:W:172:MET:HE3	4:W:172:MET:HB3	1.83	0.41
1:Z:129:LEU:HD13	6:u:239:TYR:CD1	2.54	0.41
5:d:109:VAL:HG21	5:f:107:MET:HE1	2.03	0.41
5:h:51:ARG:NH2	5:h:59:SER:OG	2.54	0.41
5:n:35:THR:HG22	5:n:43:VAL:HG12	2.01	0.41
5:n:94:LEU:O	6:t:732:ALA:HB3	2.20	0.41
5:o:53:ALA:HB3	5:o:57:THR:HG23	2.02	0.41
5:p:94:LEU:HB2	6:s:741:LEU:CD2	2.51	0.41
5:r:20:PHE:O	5:r:58:ILE:HG22	2.19	0.41
6:s:124:TYR:CD2	6:s:313:VAL:HG22	2.55	0.41
6:t:126:PHE:HE1	6:t:375:PHE:HE1	1.67	0.41
6:u:230:ILE:HG21	6:u:233:PHE:HB2	2.02	0.41
6:v:716:PHE:HE1	6:v:718:ILE:HD11	1.85	0.41
6:w:135:GLN:HB2	6:w:304:LEU:HD12	2.02	0.41
6:x:260:ASN:C	6:x:260:ASN:ND2	2.78	0.41
1:1:52:LEU:HD12	1:1:124:ILE:HB	2.02	0.41
2:3:39:ASP:OD2	1:y:36:ARG:HB3	2.20	0.41
2:5:32:VAL:HG11	6:s:160:GLN:NE2	2.36	0.41
3:A:77:LEU:HD12	3:A:134:LEU:HD21	2.02	0.41
3:B:138:VAL:HG22	3:B:256:MET:HE1	2.03	0.41
3:E:16:VAL:HG21	3:E:216:HIS:CD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:117:ILE:HG23	3:G:404:LEU:HD23	2.03	0.41
3:G:275:ASP:OD2	3:G:351:ARG:HD2	2.20	0.41
3:I:110:LEU:HD23	3:I:110:LEU:HA	1.82	0.41
3:I:412:GLN:HA	3:J:92:GLU:HB2	2.03	0.41
3:K:66:LEU:HD11	3:K:139:VAL:HB	2.01	0.41
4:M:182:ASN:HB3	4:M:186:GLY:H	1.85	0.41
4:O:141:LYS:HE2	4:O:141:LYS:HB3	1.66	0.41
4:U:148:ASN:ND2	4:V:159:VAL:HB	2.36	0.41
1:Y:129:LEU:HD13	6:v:239:TYR:HD1	1.86	0.41
5:b:51:ARG:NH2	5:b:59:SER:OG	2.53	0.41
5:i:39:VAL:HG23	5:i:69:GLY:HA3	2.03	0.41
5:q:36:LEU:HD23	5:q:44:LEU:HD23	2.02	0.41
6:s:265:TYR:O	6:s:283:ARG:HA	2.21	0.41
6:s:618:ILE:CG2	6:s:656:LEU:HD22	2.49	0.41
6:t:589:PRO:HG2	6:t:590:TYR:CD1	2.54	0.41
6:v:304:LEU:O	6:v:305:TRP:HB2	2.20	0.41
6:w:22:LEU:HD23	6:x:779:ILE:HD12	2.01	0.41
6:w:143:LEU:HB3	6:w:146:TYR:HB2	2.02	0.41
6:w:266:MET:HB3	6:w:266:MET:HE3	1.81	0.41
6:x:121:VAL:HG12	6:x:122:ALA:N	2.32	0.41
6:x:143:LEU:HB3	6:x:146:TYR:HB2	2.02	0.41
1:y:88:SER:O	1:y:89:MET:HG3	2.21	0.41
3:A:162:ARG:NH1	3:A:164:SER:OG	2.53	0.41
3:B:11:ASP:HB3	3:B:15:SER:HB3	2.03	0.41
3:E:227:LEU:HG	3:E:243:THR:HG22	2.03	0.41
3:G:405:LEU:O	3:G:409:GLN:HB2	2.20	0.41
3:H:64:ARG:HD2	3:I:354:PHE:CD2	2.55	0.41
3:I:406:LYS:O	3:I:409:GLN:HG3	2.20	0.41
3:J:398:LEU:O	3:J:402:ARG:HG3	2.20	0.41
3:K:16:VAL:HG21	3:K:216:HIS:CD2	2.56	0.41
3:L:87:THR:OG1	3:L:425:THR:OG1	2.20	0.41
4:X:158:GLY:O	4:X:162:GLU:HG3	2.21	0.41
5:f:46:ILE:HA	5:f:50:TYR:CZ	2.56	0.41
5:m:103:GLN:NE2	5:n:84:ARG:HD2	2.36	0.41
5:n:22:ILE:HG12	5:n:56:THR:HA	2.03	0.41
6:s:138:THR:HG22	6:s:139:LYS:H	1.86	0.41
6:s:174:VAL:HG13	6:s:207:ASN:HB2	2.01	0.41
6:s:762:LYS:HB2	6:s:762:LYS:HE2	1.79	0.41
6:t:143:LEU:HB3	6:t:146:TYR:HB2	2.01	0.41
6:t:168:HIS:HA	6:t:172:LYS:O	2.20	0.41
6:t:594:MET:HG3	6:t:773:THR:HG23	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:t:679:PHE:O	6:t:680:SER:OG	2.28	0.41
6:u:53:THR:HG22	6:u:572:PHE:CD1	2.56	0.41
6:u:214:ASN:OD1	6:u:221:HIS:HB3	2.21	0.41
6:v:265:TYR:O	6:v:283:ARG:HA	2.21	0.41
6:x:341:PRO:O	6:x:342:SER:OG	2.36	0.41
6:x:497:PRO:HG2	6:x:519:ASP:HB2	2.03	0.41
2:2:17:ILE:HD11	1:Y:98:ILE:HD12	2.03	0.41
2:8:22:PRO:HB2	1:Y:125:PHE:CE2	2.55	0.41
2:8:43:THR:HB	2:8:47:GLU:OE1	2.21	0.41
3:D:137:LEU:HD23	3:D:137:LEU:HA	1.90	0.41
3:G:145:LEU:HD23	3:G:145:LEU:HA	1.91	0.41
3:G:358:LEU:HD23	3:G:358:LEU:HA	1.90	0.41
3:H:144:LEU:HD11	3:H:179:MET:HE3	2.03	0.41
3:I:113:VAL:O	3:I:117:ILE:HG12	2.21	0.41
3:J:403:VAL:O	3:J:407:GLN:HG2	2.20	0.41
3:K:128:VAL:HG11	3:L:394:GLN:HB2	2.02	0.41
3:K:300:VAL:HG12	3:K:327:ILE:CD1	2.51	0.41
4:M:34:GLY:HA2	5:d:95:ARG:NH2	2.35	0.41
4:S:54:ILE:HD11	4:S:141:LYS:HD3	2.01	0.41
4:T:156:VAL:HG12	4:T:160:LEU:HD12	2.02	0.41
5:e:7:THR:HG22	5:e:115:ASP:OD2	2.21	0.41
5:j:18:ARG:NH2	5:j:63:ALA:HB2	2.30	0.41
5:m:93:ILE:HA	6:t:742:ARG:HA	2.02	0.41
6:s:464:ARG:HB3	6:t:582:ALA:HB2	2.03	0.41
6:t:522:LYS:HE3	6:t:524:PHE:CZ	2.56	0.41
6:u:21:ILE:H	6:u:21:ILE:HD12	1.85	0.41
6:u:37:SER:OG	6:u:40:GLU:HB2	2.21	0.41
6:v:497:PRO:HG2	6:v:519:ASP:HB2	2.02	0.41
6:w:426:ALA:O	6:w:427:SER:HB3	2.21	0.41
6:w:590:TYR:CD1	6:w:746:LEU:HD11	2.55	0.41
6:x:192:ASP:O	6:x:196:LEU:HD23	2.21	0.41
1:z:98:ILE:O	1:z:102:THR:HG22	2.20	0.41
2:3:11:LYS:HG2	2:3:14:THR:HB	2.03	0.41
2:8:20:VAL:HG11	6:w:188:VAL:HG11	2.02	0.41
3:A:388:VAL:O	3:A:392:LEU:N	2.44	0.41
3:B:38:THR:HG23	3:B:39:ILE:N	2.36	0.41
3:C:110:LEU:HD23	3:C:110:LEU:HA	1.80	0.41
3:D:19:ARG:HG3	3:D:20:LEU:N	2.36	0.41
3:E:107:ASP:OD2	3:E:108:GLU:N	2.54	0.41
3:F:38:THR:HG23	3:F:39:ILE:N	2.36	0.41
3:F:215:THR:HG21	3:F:251:TYR:OH	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:250:PRO:HA	3:I:403:VAL:HG21	2.02	0.41
4:N:9:GLU:HG2	5:d:25:GLU:OE2	2.21	0.41
4:Q:1:MET:HE2	4:Q:52:ARG:HD2	2.02	0.41
4:R:99:ARG:NH2	4:R:111:ASP:OD2	2.54	0.41
4:T:7:ASN:OD1	5:m:55:ARG:NH2	2.45	0.41
4:W:151:PHE:HZ	6:u:786:ASN:HB3	1.86	0.41
5:c:35:THR:HA	5:c:42:LYS:O	2.21	0.41
5:d:51:ARG:CZ	5:d:53:ALA:HB2	2.50	0.41
5:g:108:HIS:O	5:g:112:GLU:HG3	2.20	0.41
5:l:34:VAL:HG22	5:l:75:LEU:HG	2.02	0.41
5:q:27:LEU:HD23	5:q:27:LEU:HA	1.89	0.41
5:q:60:LEU:O	5:q:61:THR:OG1	2.30	0.41
6:s:121:VAL:O	6:s:122:ALA:C	2.63	0.41
6:s:163:ARG:HG3	6:s:239:TYR:HB2	2.03	0.41
6:s:325:LEU:HD23	6:s:325:LEU:HA	1.88	0.41
6:s:406:ALA:HA	6:s:414:LEU:O	2.20	0.41
6:s:424:LEU:HD12	6:s:436:GLU:O	2.20	0.41
6:t:111:ASN:ND2	6:t:114:ASN:HD22	2.19	0.41
6:t:618:ILE:HA	6:t:621:ILE:HG12	2.01	0.41
6:t:746:LEU:HD12	6:t:746:LEU:HA	1.88	0.41
6:u:304:LEU:O	6:u:305:TRP:HB2	2.20	0.41
6:u:369:SER:HB3	6:u:377:PHE:CE2	2.55	0.41
6:v:219:PHE:HE2	6:v:221:HIS:HB2	1.84	0.41
6:v:266:MET:HB3	6:v:266:MET:HE3	1.76	0.41
6:v:350:ASP:OD1	6:v:351:VAL:N	2.53	0.41
6:w:157:ARG:NE	6:w:242:GLN:HB2	2.36	0.41
6:w:192:ASP:O	6:w:196:LEU:HD23	2.21	0.41
6:w:522:LYS:HE3	6:w:524:PHE:CZ	2.56	0.41
6:w:686:GLN:NE2	6:w:694:SER:OG	2.54	0.41
6:w:704:ARG:N	6:w:784:GLU:O	2.45	0.41
6:x:162:GLY:C	6:x:163:ARG:HD2	2.46	0.41
6:x:301:ASP:HA	6:x:330:LYS:HG2	2.02	0.41
2:2:13:ASP:HB2	6:v:433:LYS:O	2.21	0.41
2:2:29:VAL:HG21	1:Z:58:SER:HB3	2.01	0.41
2:4:11:LYS:HE2	2:4:14:THR:HB	2.03	0.41
2:6:32:VAL:HG22	2:6:33:GLU:H	1.86	0.41
3:A:38:THR:O	3:A:38:THR:OG1	2.38	0.41
3:B:16:VAL:HG23	3:B:19:ARG:NH2	2.36	0.41
3:C:124:ASN:OD1	3:C:156:ASN:N	2.51	0.41
3:C:184:GLN:HB2	3:D:172:ALA:HB3	2.02	0.41
3:E:117:ILE:HD13	3:E:408:LEU:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:414:ILE:HG22	3:F:416:GLU:H	1.86	0.41
3:G:321:THR:HG21	4:V:173:GLU:HB3	2.02	0.41
3:H:73:LEU:HD23	3:H:381:LEU:HD13	2.03	0.41
3:H:159:LYS:HG3	3:H:161:TYR:CE1	2.55	0.41
3:H:187:PHE:HA	3:H:190:LEU:HG	2.02	0.41
3:I:78:PHE:CZ	3:I:130:LEU:HD13	2.56	0.41
3:I:317:GLY:O	4:X:182:ASN:ND2	2.48	0.41
3:I:321:THR:HG21	4:X:173:GLU:HB3	2.02	0.41
3:J:100:PRO:O	3:J:103:LEU:HG	2.20	0.41
3:K:74:MET:HA	3:K:77:LEU:HB2	2.02	0.41
3:K:430:LEU:O	3:K:433:ILE:HG12	2.21	0.41
3:L:144:LEU:HD21	3:L:251:TYR:HD2	1.86	0.41
3:L:295:LYS:NZ	4:M:187:ASP:OD2	2.53	0.41
4:O:148:ASN:ND2	4:P:159:VAL:HB	2.36	0.41
4:P:55:GLN:HB3	4:P:62:ASN:HD21	1.86	0.41
4:P:155:GLU:OE1	6:w:790:ARG:HD2	2.21	0.41
4:T:5:ASP:HB3	5:m:29:ARG:HG3	2.02	0.41
4:U:53:GLN:NE2	4:U:57:ARG:HH21	2.18	0.41
4:V:155:GLU:OE2	6:t:790:ARG:HD2	2.21	0.41
4:V:191:SER:O	4:V:195:THR:HG23	2.21	0.41
1:Y:42:MET:HB2	1:Y:139:ILE:HD11	2.02	0.41
1:Y:61:GLU:HA	1:Y:64:SER:HB3	2.03	0.41
1:Z:77:ALA:O	1:Z:81:ILE:HG12	2.20	0.41
5:a:84:ARG:NH2	5:a:87:ASP:OD2	2.53	0.41
5:f:53:ALA:HB3	5:f:57:THR:HG23	2.03	0.41
5:g:106:THR:HG23	5:h:106:THR:OG1	2.21	0.41
5:g:109:VAL:HG21	5:i:107:MET:HE1	2.03	0.41
5:h:93:ILE:HD13	6:v:731:MET:HG2	2.02	0.41
5:j:106:THR:HG21	5:l:106:THR:OG1	2.21	0.41
5:k:36:LEU:HD23	5:k:70:TYR:HB3	2.02	0.41
5:m:103:GLN:O	5:m:107:MET:HG3	2.21	0.41
5:q:26:TYR:HE2	5:q:29:ARG:HD3	1.85	0.41
5:q:31:PHE:CD1	5:q:79:THR:HA	2.56	0.41
5:r:53:ALA:HB3	5:r:57:THR:HG23	2.02	0.41
6:s:260:ASN:C	6:s:260:ASN:ND2	2.78	0.41
6:s:355:ARG:NH1	6:s:428:GLY:O	2.54	0.41
6:s:734:ALA:O	6:s:735:ARG:HB2	2.21	0.41
6:t:26:ASP:OD1	6:t:26:ASP:C	2.63	0.41
6:t:164:GLU:OE1	6:t:164:GLU:HA	2.21	0.41
6:t:258:PRO:HG2	6:t:291:TRP:HZ2	1.85	0.41
6:t:426:ALA:CB	6:t:430:LEU:HA	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:t:426:ALA:HB2	6:t:430:LEU:HD12	2.02	0.41
6:t:456:ARG:HD2	6:t:456:ARG:HA	1.75	0.41
6:t:479:VAL:O	6:t:482:VAL:HG13	2.21	0.41
6:t:706:ALA:HA	6:t:783:TRP:HA	2.03	0.41
6:u:86:ILE:HD11	6:u:107:ILE:HG13	2.02	0.41
6:u:120:THR:HG23	6:u:125:THR:HG22	2.03	0.41
6:u:497:PRO:HB2	6:u:518:GLY:HA3	2.02	0.41
6:u:566:ARG:HA	6:u:571:THR:HA	2.03	0.41
6:v:20:ASP:CG	6:v:681:LYS:HG2	2.45	0.41
6:v:529:LEU:HB3	6:v:537:GLN:HG3	2.03	0.41
6:w:102:ASN:HB3	6:w:324:TRP:CE3	2.56	0.41
6:w:168:HIS:HA	6:w:172:LYS:O	2.21	0.41
6:w:265:TYR:O	6:w:283:ARG:HA	2.20	0.41
6:w:464:ARG:HB3	6:x:582:ALA:HB2	2.02	0.41
6:w:472:ARG:HD2	6:w:472:ARG:C	2.46	0.41
6:x:26:ASP:OD1	6:x:26:ASP:C	2.64	0.41
6:x:369:SER:HB3	6:x:377:PHE:CE2	2.55	0.41
6:x:426:ALA:O	6:x:427:SER:HB3	2.21	0.41
2:8:56:VAL:HG21	6:w:314:ARG:O	2.21	0.41
3:A:86:LEU:HB3	3:A:424:PRO:HB2	2.03	0.41
2:AA:43:THR:HB	2:AA:47:GLU:OE1	2.21	0.41
3:D:91:TYR:CD2	3:D:94:LYS:HB3	2.56	0.41
3:D:206:LYS:HD2	3:D:206:LYS:HA	1.90	0.41
3:E:65:GLY:HA3	3:E:356:PHE:CD2	2.55	0.41
3:E:430:LEU:HD23	3:E:430:LEU:HA	1.89	0.41
3:F:34:CYS:O	3:F:38:THR:HG22	2.21	0.41
3:G:117:ILE:O	3:G:121:ILE:HG12	2.21	0.41
3:J:19:ARG:HG3	3:J:20:LEU:N	2.36	0.41
4:N:5:ASP:HB3	5:d:29:ARG:HE	1.86	0.41
4:Q:97:VAL:HG22	4:Q:98:ASN:H	1.85	0.41
4:X:155:GLU:HG2	4:X:156:VAL:N	2.36	0.41
5:b:77:ARG:CZ	5:b:108:HIS:HD2	2.34	0.41
5:d:13:LEU:O	5:d:17:ASN:ND2	2.54	0.41
5:f:79:THR:HB	5:f:109:VAL:HG22	2.03	0.41
6:t:31:GLN:HB3	6:t:677:TYR:CD1	2.46	0.41
6:t:192:ASP:O	6:t:196:LEU:HD23	2.21	0.41
6:u:350:ASP:OD1	6:u:351:VAL:N	2.54	0.41
6:u:450:ARG:NE	6:u:501:PHE:HA	2.36	0.41
6:u:549:VAL:CG1	6:u:565:LEU:HD12	2.50	0.41
6:u:630:LYS:HD2	6:u:672:ASN:HD21	1.86	0.41
6:v:71:ARG:HD3	6:v:72:ASP:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:x:214:ASN:OD1	6:x:221:HIS:HB3	2.21	0.41
1:1:27:ILE:H	1:1:27:ILE:HG13	1.74	0.40
1:1:51:ASP:CG	2:6:32:VAL:HG12	2.45	0.40
3:A:275:ASP:OD2	3:A:351:ARG:HD2	2.21	0.40
2:AB:33:GLU:HG3	6:t:290:VAL:CG1	2.51	0.40
3:G:77:LEU:HD22	3:G:397:GLN:HE21	1.86	0.40
3:G:81:GLN:HE21	3:G:433:ILE:HD12	1.86	0.40
3:I:84:MET:SD	3:I:84:MET:N	2.94	0.40
3:K:35:ALA:HB2	3:K:43:PHE:HB3	2.03	0.40
4:Q:57:ARG:NH2	4:R:166:GLU:OE2	2.48	0.40
4:V:182:ASN:HB3	4:V:186:GLY:N	2.35	0.40
5:c:65:GLY:C	5:c:67:ALA:N	2.78	0.40
5:e:94:LEU:O	6:w:732:ALA:HB3	2.21	0.40
5:l:63:ALA:O	5:l:64:TRP:C	2.64	0.40
5:q:35:THR:OG1	5:q:74:GLU:HB3	2.21	0.40
6:s:716:PHE:HE1	6:s:718:ILE:HD11	1.86	0.40
6:t:104:SER:HB2	6:t:105:ASN:H	1.54	0.40
6:t:135:GLN:HB2	6:t:304:LEU:HD12	2.02	0.40
6:t:388:ASP:HB2	1:z:79:GLY:O	2.20	0.40
6:u:23:ARG:NH2	6:u:29:SER:HA	2.36	0.40
6:v:406:ALA:HA	6:v:414:LEU:O	2.21	0.40
6:w:121:VAL:O	6:w:122:ALA:C	2.65	0.40
6:x:304:LEU:O	6:x:305:TRP:HB2	2.20	0.40
6:x:424:LEU:HD12	6:x:436:GLU:O	2.21	0.40
6:x:549:VAL:CG1	6:x:565:LEU:HD12	2.51	0.40
2:AD:17:ILE:HG13	6:x:185:PRO:HG3	2.03	0.40
3:B:323:ARG:HE	3:B:323:ARG:HB2	1.59	0.40
3:B:414:ILE:HG22	3:B:416:GLU:H	1.86	0.40
3:C:113:VAL:O	3:C:117:ILE:HG12	2.20	0.40
3:K:309:ARG:O	3:K:313:LYS:HD2	2.21	0.40
4:M:58:GLY:HA2	4:M:122:ILE:HD11	2.04	0.40
4:T:155:GLU:HG2	4:T:156:VAL:N	2.34	0.40
5:h:13:LEU:HD12	5:h:13:LEU:HA	1.86	0.40
5:j:62:LYS:HE2	5:j:62:LYS:HB3	1.90	0.40
5:m:77:ARG:CZ	5:m:108:HIS:HD2	2.34	0.40
5:r:18:ARG:HH11	5:r:18:ARG:HG3	1.86	0.40
6:s:239:TYR:HD1	1:z:129:LEU:HD13	1.86	0.40
6:t:308:MET:HE3	6:t:309:PRO:HD2	2.03	0.40
6:t:426:ALA:O	6:t:427:SER:HB3	2.21	0.40
6:t:510:ASN:HB3	6:t:528:PHE:O	2.21	0.40
6:u:426:ALA:CB	6:u:430:LEU:HA	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:u:716:PHE:CD2	6:u:776:LEU:HD13	2.56	0.40
6:v:160:GLN:HG2	6:v:239:TYR:CZ	2.56	0.40
6:w:706:ALA:HA	6:w:783:TRP:HA	2.04	0.40
6:x:124:TYR:CB	6:x:313:VAL:HA	2.51	0.40
6:x:230:ILE:HG21	6:x:233:PHE:HB2	2.02	0.40
6:x:366:ILE:HD11	6:x:415:ILE:HG13	2.02	0.40
1:0:36:ARG:HB3	2:5:39:ASP:OD2	2.21	0.40
1:0:86:GLY:HA3	6:s:371:THR:HG22	2.03	0.40
2:4:32:VAL:HG22	2:4:33:GLU:H	1.85	0.40
2:8:29:VAL:HG23	1:Y:67:LEU:HD12	2.03	0.40
2:9:22:PRO:HB2	1:Z:125:PHE:CE2	2.57	0.40
3:A:17:TYR:HE2	3:A:21:LYS:HZ3	1.66	0.40
3:C:87:THR:O	3:C:425:THR:N	2.55	0.40
3:E:216:HIS:CE1	3:E:218:TYR:HB3	2.57	0.40
3:G:314:ALA:HB1	3:G:318:ASP:HB2	2.02	0.40
3:J:146:TYR:HB2	3:J:251:TYR:CD1	2.56	0.40
3:J:309:ARG:NH2	4:X:63:ILE:HD13	2.36	0.40
3:J:317:GLY:O	4:M:183:MET:HG2	2.22	0.40
3:K:250:PRO:HA	3:K:403:VAL:HG11	2.03	0.40
4:S:84:TYR:CE1	4:S:121:ILE:HD13	2.56	0.40
5:g:94:LEU:HB2	6:v:741:LEU:CD2	2.51	0.40
5:j:108:HIS:O	5:j:112:GLU:HG3	2.21	0.40
5:m:8:VAL:HG13	5:m:74:GLU:OE2	2.20	0.40
5:m:93:ILE:HD11	6:t:742:ARG:HH21	1.86	0.40
5:p:77:ARG:HH12	5:p:108:HIS:HB3	1.86	0.40
6:s:67:HIS:NE2	6:s:120:THR:OG1	2.37	0.40
6:s:450:ARG:NE	6:s:500:VAL:O	2.47	0.40
6:s:549:VAL:CG1	6:s:565:LEU:HD12	2.51	0.40
6:s:594:MET:HE1	6:s:668:TYR:O	2.22	0.40
6:s:716:PHE:CD2	6:s:776:LEU:HD13	2.57	0.40
6:t:615:SER:HA	6:t:657:ARG:HA	2.03	0.40
6:u:114:ASN:OD1	6:u:450:ARG:NH2	2.42	0.40
6:v:566:ARG:HA	6:v:571:THR:HA	2.02	0.40
6:v:716:PHE:CD2	6:v:776:LEU:HD13	2.56	0.40
6:w:26:ASP:OD1	6:w:26:ASP:C	2.63	0.40
6:w:163:ARG:HD2	6:w:238:GLY:O	2.22	0.40
6:x:143:LEU:N	6:x:297:TRP:O	2.43	0.40
3:A:16:VAL:HG12	3:A:19:ARG:HH21	1.86	0.40
3:A:228:ARG:NH2	3:A:230:GLU:OE1	2.54	0.40
3:A:389:TYR:O	3:A:393:SER:OG	2.21	0.40
2:AA:30:SER:HA	6:u:289:LYS:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AD:17:ILE:HD12	2:AD:17:ILE:H	1.87	0.40
3:B:19:ARG:HH22	3:B:178:GLN:HE22	1.68	0.40
3:B:414:ILE:H	3:B:414:ILE:HD12	1.86	0.40
3:D:268:TYR:CZ	3:D:272:TYR:HE2	2.40	0.40
3:E:113:VAL:O	3:E:117:ILE:HG12	2.22	0.40
3:F:399:PRO:O	3:F:403:VAL:HG23	2.22	0.40
3:G:393:SER:O	3:G:397:GLN:N	2.47	0.40
3:H:155:TYR:CD2	3:H:157:PRO:HD3	2.56	0.40
3:K:146:TYR:HE1	3:K:250:PRO:HG2	1.86	0.40
4:N:59:TRP:O	4:N:63:ILE:HD12	2.20	0.40
4:N:155:GLU:HG2	4:N:156:VAL:N	2.37	0.40
4:U:97:VAL:HG22	4:U:98:ASN:H	1.86	0.40
4:W:80:TYR:HE1	4:W:87:LEU:HB2	1.86	0.40
5:a:60:LEU:HB3	5:a:64:TRP:CZ3	2.55	0.40
5:b:65:GLY:HA2	5:b:66:PRO:HD2	1.81	0.40
5:e:51:ARG:NE	5:e:51:ARG:HA	2.37	0.40
5:j:84:ARG:NH2	5:j:87:ASP:OD2	2.55	0.40
5:r:79:THR:HB	5:r:109:VAL:HG22	2.04	0.40
6:s:3:LEU:HA	6:s:3:LEU:HD23	1.88	0.40
6:s:529:LEU:HB3	6:s:537:GLN:HG3	2.03	0.40
6:t:47:PRO:HB2	6:t:597:LYS:HE2	2.04	0.40
6:t:160:GLN:HG2	6:t:239:TYR:CZ	2.57	0.40
6:t:305:TRP:CH2	6:t:326:GLU:HB2	2.57	0.40
6:t:590:TYR:CD1	6:t:746:LEU:HD11	2.56	0.40
6:t:686:GLN:NE2	6:t:694:SER:OG	2.54	0.40
6:x:184:GLN:HB3	6:x:187:HIS:HD2	1.86	0.40
6:x:450:ARG:NE	6:x:501:PHE:HA	2.36	0.40
2:5:32:VAL:HG22	2:5:33:GLU:N	2.37	0.40
3:A:117:ILE:HD12	3:A:404:LEU:HD23	2.03	0.40
2:AA:33:GLU:HB2	6:u:290:VAL:CG1	2.52	0.40
3:B:269:ILE:O	3:B:273:LEU:N	2.55	0.40
3:C:412:GLN:HA	3:D:92:GLU:HB2	2.03	0.40
3:D:40:PRO:HG3	3:D:55:GLN:O	2.22	0.40
3:E:74:MET:HA	3:E:77:LEU:HB2	2.03	0.40
3:H:77:LEU:HD23	3:H:77:LEU:HA	1.91	0.40
3:I:21:LYS:HZ3	3:I:24:ARG:NH2	2.20	0.40
3:J:419:LYS:O	3:J:423:GLU:N	2.47	0.40
3:L:414:ILE:HG22	3:L:416:GLU:H	1.86	0.40
1:Z:52:LEU:HB3	1:Z:128:GLN:HE21	1.86	0.40
5:d:84:ARG:HD3	5:f:104:ILE:HG22	2.03	0.40
5:j:94:LEU:HD12	5:j:94:LEU:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:o:66:PRO:HA	5:o:70:TYR:O	2.21	0.40
5:p:24:PHE:CD2	5:p:77:ARG:HD3	2.57	0.40
6:s:266:MET:HB3	6:s:266:MET:HE3	1.76	0.40
6:t:208:LEU:HB3	6:t:211:TRP:CG	2.57	0.40
6:u:430:LEU:HD11	6:u:435:VAL:HG23	2.04	0.40
6:v:432:SER:HA	6:v:435:VAL:HG13	2.03	0.40
6:v:618:ILE:CG2	6:v:656:LEU:HD22	2.50	0.40
6:w:46:PRO:HB2	6:w:576:ILE:CG2	2.48	0.40
6:x:37:SER:OG	6:x:40:GLU:HB2	2.21	0.40
6:x:394:ALA:O	6:x:395:VAL:C	2.65	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	117/196 (60%)	115 (98%)	2 (2%)	0	100	100
1	1	117/196 (60%)	116 (99%)	1 (1%)	0	100	100
1	Y	117/196 (60%)	115 (98%)	2 (2%)	0	100	100
1	Z	117/196 (60%)	115 (98%)	2 (2%)	0	100	100
1	y	117/196 (60%)	115 (98%)	2 (2%)	0	100	100
1	z	117/196 (60%)	116 (99%)	1 (1%)	0	100	100
2	2	29/88 (33%)	25 (86%)	4 (14%)	0	100	100
2	3	29/88 (33%)	26 (90%)	3 (10%)	0	100	100
2	4	29/88 (33%)	23 (79%)	6 (21%)	0	100	100
2	5	29/88 (33%)	25 (86%)	4 (14%)	0	100	100
2	6	29/88 (33%)	23 (79%)	6 (21%)	0	100	100
2	7	29/88 (33%)	24 (83%)	5 (17%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	8	47/88 (53%)	45 (96%)	2 (4%)	0	100	100
2	9	47/88 (53%)	45 (96%)	2 (4%)	0	100	100
2	AA	47/88 (53%)	45 (96%)	2 (4%)	0	100	100
2	AB	47/88 (53%)	45 (96%)	2 (4%)	0	100	100
2	AC	47/88 (53%)	44 (94%)	3 (6%)	0	100	100
2	AD	47/88 (53%)	44 (94%)	3 (6%)	0	100	100
3	A	427/536 (80%)	419 (98%)	8 (2%)	0	100	100
3	B	429/536 (80%)	422 (98%)	7 (2%)	0	100	100
3	C	427/536 (80%)	416 (97%)	11 (3%)	0	100	100
3	D	429/536 (80%)	422 (98%)	7 (2%)	0	100	100
3	E	427/536 (80%)	417 (98%)	10 (2%)	0	100	100
3	F	429/536 (80%)	422 (98%)	7 (2%)	0	100	100
3	G	427/536 (80%)	418 (98%)	9 (2%)	0	100	100
3	H	429/536 (80%)	423 (99%)	6 (1%)	0	100	100
3	I	427/536 (80%)	414 (97%)	13 (3%)	0	100	100
3	J	429/536 (80%)	425 (99%)	4 (1%)	0	100	100
3	K	427/536 (80%)	417 (98%)	10 (2%)	0	100	100
3	L	429/536 (80%)	423 (99%)	6 (1%)	0	100	100
4	M	194/196 (99%)	190 (98%)	4 (2%)	0	100	100
4	N	192/196 (98%)	185 (96%)	7 (4%)	0	100	100
4	O	194/196 (99%)	190 (98%)	4 (2%)	0	100	100
4	P	192/196 (98%)	185 (96%)	7 (4%)	0	100	100
4	Q	194/196 (99%)	190 (98%)	4 (2%)	0	100	100
4	R	192/196 (98%)	187 (97%)	5 (3%)	0	100	100
4	S	194/196 (99%)	189 (97%)	5 (3%)	0	100	100
4	T	192/196 (98%)	185 (96%)	7 (4%)	0	100	100
4	U	194/196 (99%)	191 (98%)	3 (2%)	0	100	100
4	V	192/196 (98%)	184 (96%)	8 (4%)	0	100	100
4	W	194/196 (99%)	189 (97%)	5 (3%)	0	100	100
4	X	192/196 (98%)	186 (97%)	6 (3%)	0	100	100
5	a	113/553 (20%)	107 (95%)	6 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	b	111/553 (20%)	106 (96%)	5 (4%)	0	100	100
5	c	111/553 (20%)	105 (95%)	5 (4%)	1 (1%)	14	49
5	d	113/553 (20%)	108 (96%)	5 (4%)	0	100	100
5	e	111/553 (20%)	103 (93%)	7 (6%)	1 (1%)	14	49
5	f	111/553 (20%)	106 (96%)	5 (4%)	0	100	100
5	g	113/553 (20%)	110 (97%)	3 (3%)	0	100	100
5	h	111/553 (20%)	105 (95%)	4 (4%)	2 (2%)	7	35
5	i	111/553 (20%)	107 (96%)	4 (4%)	0	100	100
5	j	113/553 (20%)	109 (96%)	4 (4%)	0	100	100
5	k	111/553 (20%)	104 (94%)	5 (4%)	2 (2%)	7	35
5	l	111/553 (20%)	107 (96%)	4 (4%)	0	100	100
5	m	113/553 (20%)	109 (96%)	4 (4%)	0	100	100
5	n	111/553 (20%)	103 (93%)	8 (7%)	0	100	100
5	o	111/553 (20%)	108 (97%)	3 (3%)	0	100	100
5	p	113/553 (20%)	107 (95%)	5 (4%)	1 (1%)	14	49
5	q	111/553 (20%)	106 (96%)	5 (4%)	0	100	100
5	r	111/553 (20%)	106 (96%)	5 (4%)	0	100	100
6	s	787/794 (99%)	701 (89%)	80 (10%)	6 (1%)	16	51
6	t	787/794 (99%)	702 (89%)	78 (10%)	7 (1%)	14	49
6	u	787/794 (99%)	699 (89%)	80 (10%)	8 (1%)	13	46
6	v	787/794 (99%)	699 (89%)	79 (10%)	9 (1%)	12	45
6	w	787/794 (99%)	699 (89%)	83 (10%)	5 (1%)	22	56
6	x	787/794 (99%)	702 (89%)	80 (10%)	5 (1%)	22	56
All	All	15342/25734 (60%)	14513 (95%)	782 (5%)	47 (0%)	38	68

All (47) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	c	68	ASP
6	s	432	SER
6	s	498	ASN
6	s	735	ARG
6	t	498	ASN
6	t	735	ARG

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Mol	Chain	Res	Type
6	u	432	SER
6	u	498	ASN
6	v	432	SER
6	v	498	ASN
6	v	735	ARG
6	w	432	SER
6	w	498	ASN
6	w	735	ARG
6	x	432	SER
6	x	498	ASN
6	x	735	ARG
5	e	66	PRO
5	h	66	PRO
5	k	63	ALA
5	p	64	TRP
6	t	739	ASN
6	u	273	ALA
6	v	396	SER
6	v	411	GLU
6	v	418	ASP
6	w	396	SER
5	h	68	ASP
6	s	105	ASN
6	t	105	ASN
6	t	398	ASN
6	t	410	SER
6	u	105	ASN
6	u	398	ASN
6	u	410	SER
6	v	105	ASN
6	x	412	GLU
5	k	71	THR
6	u	735	ARG
6	v	427	SER
6	x	427	SER
6	s	13	GLY
6	s	427	SER
6	t	427	SER
6	u	427	SER
6	w	427	SER
6	v	400	ILE

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	95/149 (64%)	95 (100%)	0	100	100
1	1	95/149 (64%)	95 (100%)	0	100	100
1	Y	95/149 (64%)	95 (100%)	0	100	100
1	Z	95/149 (64%)	95 (100%)	0	100	100
1	y	95/149 (64%)	95 (100%)	0	100	100
1	z	95/149 (64%)	95 (100%)	0	100	100
2	2	27/73 (37%)	27 (100%)	0	100	100
2	3	27/73 (37%)	27 (100%)	0	100	100
2	4	27/73 (37%)	27 (100%)	0	100	100
2	5	27/73 (37%)	27 (100%)	0	100	100
2	6	27/73 (37%)	27 (100%)	0	100	100
2	7	27/73 (37%)	27 (100%)	0	100	100
2	8	42/73 (58%)	42 (100%)	0	100	100
2	9	42/73 (58%)	42 (100%)	0	100	100
2	AA	42/73 (58%)	42 (100%)	0	100	100
2	AB	42/73 (58%)	42 (100%)	0	100	100
2	AC	42/73 (58%)	42 (100%)	0	100	100
2	AD	42/73 (58%)	42 (100%)	0	100	100
3	A	365/442 (83%)	365 (100%)	0	100	100
3	B	366/442 (83%)	366 (100%)	0	100	100
3	C	365/442 (83%)	365 (100%)	0	100	100
3	D	366/442 (83%)	366 (100%)	0	100	100
3	E	365/442 (83%)	365 (100%)	0	100	100
3	F	366/442 (83%)	366 (100%)	0	100	100
3	G	365/442 (83%)	365 (100%)	0	100	100
3	H	366/442 (83%)	366 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	I	365/442 (83%)	365 (100%)	0	100	100
3	J	366/442 (83%)	366 (100%)	0	100	100
3	K	365/442 (83%)	365 (100%)	0	100	100
3	L	366/442 (83%)	366 (100%)	0	100	100
4	M	169/169 (100%)	169 (100%)	0	100	100
4	N	167/169 (99%)	167 (100%)	0	100	100
4	O	169/169 (100%)	169 (100%)	0	100	100
4	P	167/169 (99%)	167 (100%)	0	100	100
4	Q	169/169 (100%)	169 (100%)	0	100	100
4	R	167/169 (99%)	167 (100%)	0	100	100
4	S	169/169 (100%)	169 (100%)	0	100	100
4	T	167/169 (99%)	167 (100%)	0	100	100
4	U	169/169 (100%)	169 (100%)	0	100	100
4	V	167/169 (99%)	167 (100%)	0	100	100
4	W	169/169 (100%)	169 (100%)	0	100	100
4	X	167/169 (99%)	167 (100%)	0	100	100
5	a	102/451 (23%)	102 (100%)	0	100	100
5	b	100/451 (22%)	99 (99%)	1 (1%)	73	84
5	c	100/451 (22%)	100 (100%)	0	100	100
5	d	102/451 (23%)	102 (100%)	0	100	100
5	e	100/451 (22%)	100 (100%)	0	100	100
5	f	100/451 (22%)	99 (99%)	1 (1%)	73	84
5	g	102/451 (23%)	102 (100%)	0	100	100
5	h	100/451 (22%)	99 (99%)	1 (1%)	73	84
5	i	100/451 (22%)	100 (100%)	0	100	100
5	j	102/451 (23%)	102 (100%)	0	100	100
5	k	100/451 (22%)	99 (99%)	1 (1%)	73	84
5	l	100/451 (22%)	99 (99%)	1 (1%)	73	84
5	m	102/451 (23%)	102 (100%)	0	100	100
5	n	100/451 (22%)	99 (99%)	1 (1%)	73	84
5	o	100/451 (22%)	99 (99%)	1 (1%)	73	84

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	p	102/451 (23%)	102 (100%)	0	100	100
5	q	100/451 (22%)	100 (100%)	0	100	100
5	r	100/451 (22%)	99 (99%)	1 (1%)	73	84
6	s	684/688 (99%)	677 (99%)	7 (1%)	73	84
6	t	684/688 (99%)	678 (99%)	6 (1%)	75	86
6	u	684/688 (99%)	683 (100%)	1 (0%)	92	97
6	v	684/688 (99%)	681 (100%)	3 (0%)	89	95
6	w	684/688 (99%)	678 (99%)	6 (1%)	75	86
6	x	684/688 (99%)	675 (99%)	9 (1%)	65	81
All	All	13302/21348 (62%)	13262 (100%)	40 (0%)	90	96

All (40) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	b	68	ASP
5	f	45	THR
5	h	64	TRP
5	k	68	ASP
5	l	68	ASP
5	n	68	ASP
5	o	68	ASP
5	r	48	THR
6	s	78	TYR
6	s	80	VAL
6	s	270	VAL
6	s	279	GLN
6	s	397	THR
6	s	417	SER
6	s	661	ASN
6	t	78	TYR
6	t	396	SER
6	t	417	SER
6	t	431	THR
6	t	433	LYS
6	t	478	ASP
6	u	476	VAL
6	v	270	VAL
6	v	397	THR
6	v	418	ASP

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Mol	Chain	Res	Type
6	w	78	TYR
6	w	397	THR
6	w	417	SER
6	w	433	LYS
6	w	735	ARG
6	w	736	LEU
6	x	270	VAL
6	x	397	THR
6	x	412	GLU
6	x	418	ASP
6	x	419	GLU
6	x	476	VAL
6	x	538	GLN
6	x	662	LEU
6	x	740	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (153) such sidechains are listed below:

Mol	Chain	Res	Type
1	0	49	ASN
1	0	71	ASN
1	0	128	GLN
1	1	49	ASN
1	1	111	ASN
2	2	16	GLN
2	4	16	GLN
2	8	16	GLN
2	9	16	GLN
2	9	27	GLN
3	A	68	ASN
3	A	95	GLN
3	A	154	ASN
3	A	175	ASN
3	A	331	GLN
3	A	394	GLN
2	AB	27	GLN
2	AC	27	GLN
3	B	142	ASN
3	B	178	GLN
3	C	68	ASN
3	C	95	GLN
3	C	175	ASN

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Mol	Chain	Res	Type
3	C	301	ASN
3	C	331	GLN
3	D	178	GLN
3	D	331	GLN
3	D	407	GLN
3	E	95	GLN
3	E	184	GLN
3	E	301	ASN
3	E	394	GLN
3	F	68	ASN
3	F	95	GLN
3	F	331	GLN
3	G	68	ASN
3	G	95	GLN
3	G	154	ASN
3	G	175	ASN
3	G	283	GLN
3	G	331	GLN
3	G	363	GLN
3	H	95	GLN
3	H	178	GLN
3	H	397	GLN
3	I	68	ASN
3	I	95	GLN
3	I	175	ASN
3	I	331	GLN
3	I	394	GLN
3	J	68	ASN
3	J	216	HIS
3	J	331	GLN
3	J	397	GLN
3	K	68	ASN
3	K	95	GLN
3	K	119	ASN
3	K	184	GLN
3	K	283	GLN
3	K	301	ASN
3	L	68	ASN
3	L	95	GLN
3	L	394	GLN
4	M	76	ASN
4	M	93	GLN

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Mol	Chain	Res	Type
4	M	145	GLN
4	N	76	ASN
4	O	145	GLN
4	P	37	ASN
4	P	53	GLN
4	Q	145	GLN
4	R	37	ASN
4	S	62	ASN
4	T	37	ASN
4	T	76	ASN
4	T	182	ASN
4	U	145	GLN
4	V	37	ASN
4	W	76	ASN
4	W	145	GLN
4	X	37	ASN
4	X	62	ASN
4	X	182	ASN
1	Y	111	ASN
1	Z	49	ASN
1	Z	73	GLN
5	c	105	GLN
5	d	17	ASN
5	f	105	GLN
5	g	21	ASN
5	h	100	ASN
5	i	105	GLN
5	l	105	GLN
5	o	105	GLN
5	p	17	ASN
6	s	187	HIS
6	s	279	GLN
6	s	570	ASN
6	s	586	GLN
6	s	617	HIS
6	s	645	GLN
6	s	764	ASN
6	t	145	ASN
6	t	338	ASN
6	t	498	ASN
6	t	538	GLN
6	t	570	ASN

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Mol	Chain	Res	Type
6	t	586	GLN
6	t	661	ASN
6	t	739	ASN
6	u	145	ASN
6	u	263	ASN
6	u	338	ASN
6	u	421	GLN
6	u	498	ASN
6	u	538	GLN
6	u	570	ASN
6	u	586	GLN
6	u	617	HIS
6	u	645	GLN
6	u	672	ASN
6	u	752	GLN
6	v	102	ASN
6	v	145	ASN
6	v	203	GLN
6	v	260	ASN
6	v	279	GLN
6	v	338	ASN
6	v	570	ASN
6	v	617	HIS
6	v	645	GLN
6	v	661	ASN
6	v	686	GLN
6	v	764	ASN
6	w	102	ASN
6	w	131	ASN
6	w	145	ASN
6	w	338	ASN
6	w	421	GLN
6	w	498	ASN
6	w	538	GLN
6	w	570	ASN
6	w	661	ASN
6	x	338	ASN
6	x	498	ASN
6	x	570	ASN
6	x	586	GLN
6	x	617	HIS
6	x	645	GLN

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Mol	Chain	Res	Type
6	x	752	GLN
1	y	49	ASN
1	z	49	ASN
1	z	111	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.