



Full wwPDB EM Validation Report ⓘ

Mar 6, 2026 – 06:22 PM UTC

PDB ID : 8BFP / pdb_00008bfp
EMDB ID : EMD-13862
Title : Jumbo Phage phi-kp24 empty capsid pentamer hexamers
Authors : Ouyang, R.
Deposited on : 2022-10-26
Resolution : 4.10 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

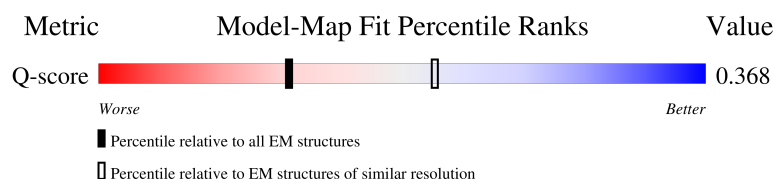
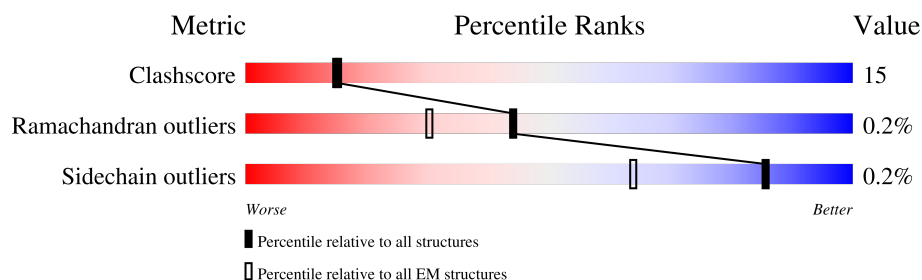
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance

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

The reported resolution of this entry is 4.10 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	6458 (3.60 - 4.60)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	570	26% 66% 33% .
1	B	570	22% 68% 31%
1	C	570	24% 70% 30%
1	D	570	24% 64% 36%

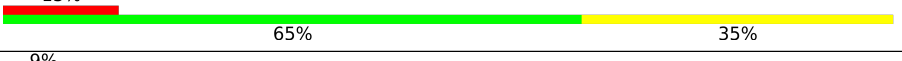
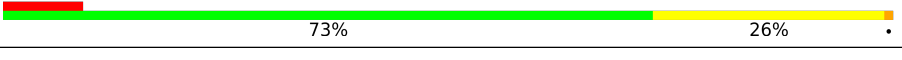
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Mol	Chain	Length	Quality of chain
1	E	570	
1	G	570	
1	H	570	
1	I	570	
1	J	570	
1	K	570	
1	L	570	
1	M	570	
1	N	570	
1	O	570	
1	P	570	
1	Q	570	
1	R	570	
1	S	570	
1	T	570	
1	U	570	
1	V	570	
1	W	570	
1	X	570	
1	Y	570	
1	Z	570	
1	a	570	
1	b	570	
1	c	570	
1	d	570	

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Mol	Chain	Length	Quality of chain
1	e	570	 14% 65% 35%
1	f	570	 9% 67% 32%
1	g	570	 11% 71% 29%
1	h	570	 9% 70% 30%
1	i	570	 13% 65% 35%
1	j	570	 9% 73% 26%

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 156905 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Major head protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	B	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	C	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	D	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	E	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	G	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	H	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	I	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	J	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	K	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	L	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	M	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	N	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	O	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	P	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	Q	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		
1	R	570	Total	C	N	O	S	0	0
			4483	2835	761	873	14		

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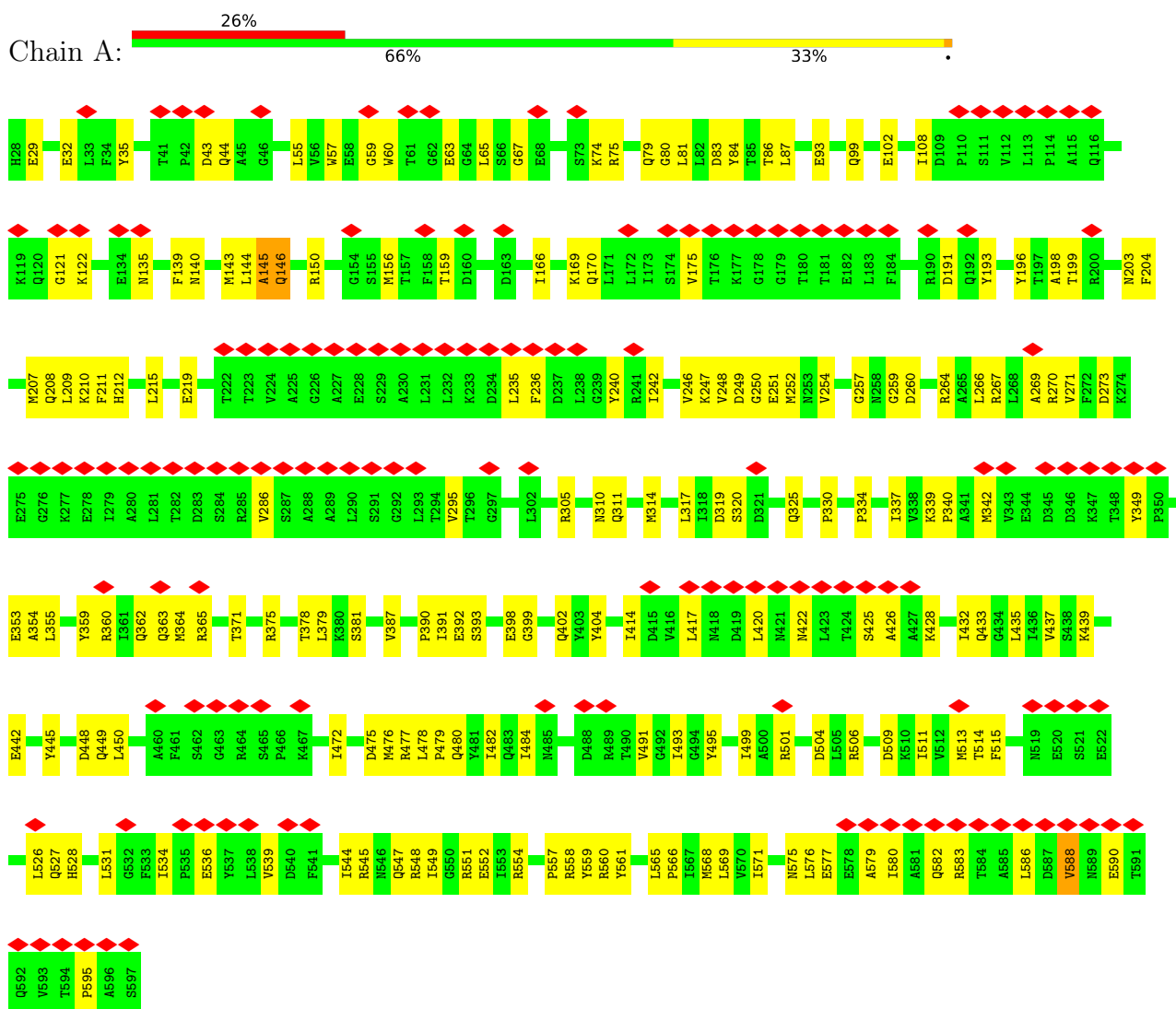
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Mol	Chain	Residues	Atoms					AltConf	Trace
1	S	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	T	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	U	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	V	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	W	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	X	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	Y	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	Z	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	a	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	b	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	c	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	d	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	e	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	f	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	g	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	h	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	i	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	j	570	Total 4483	C 2835	N 761	O 873	S 14	0	0

3 Residue-property plots

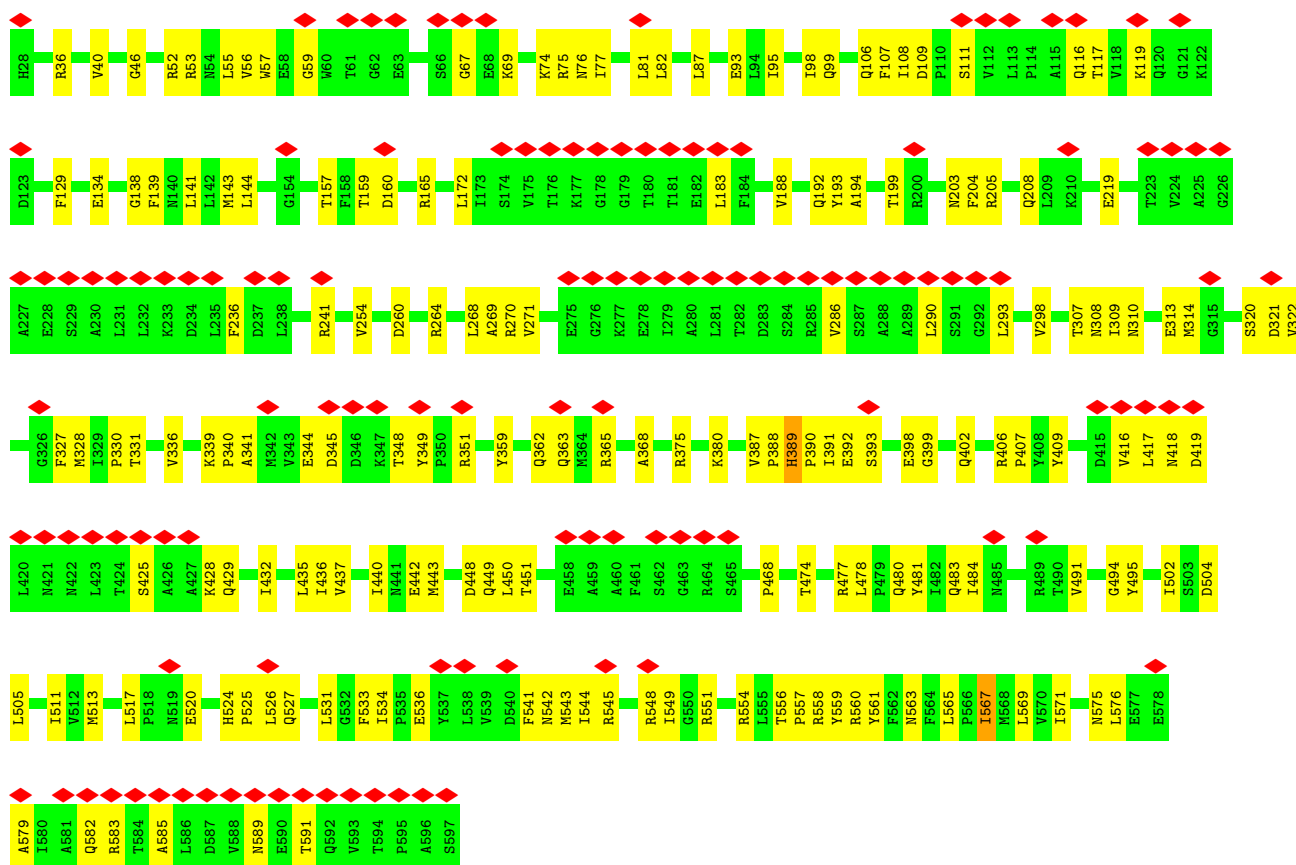
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: Major head protein

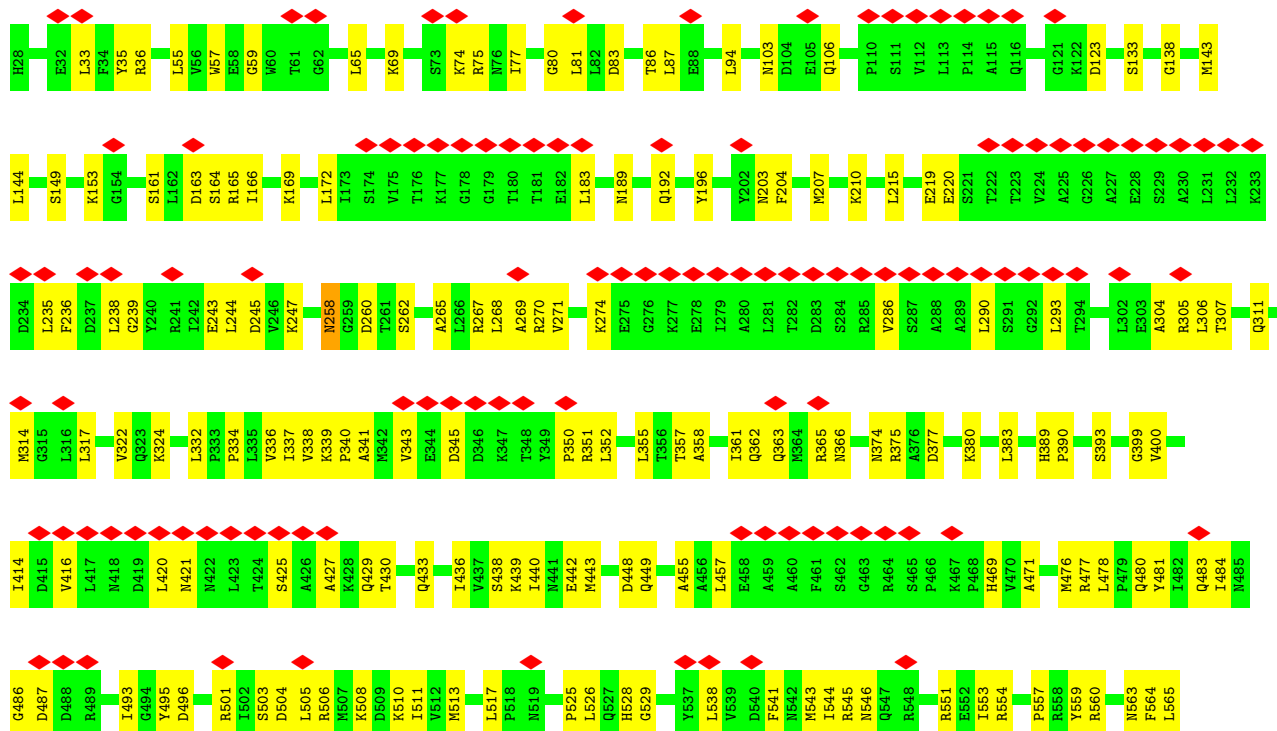


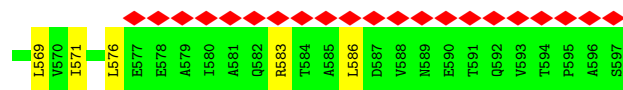
• Molecule 1: Major head protein



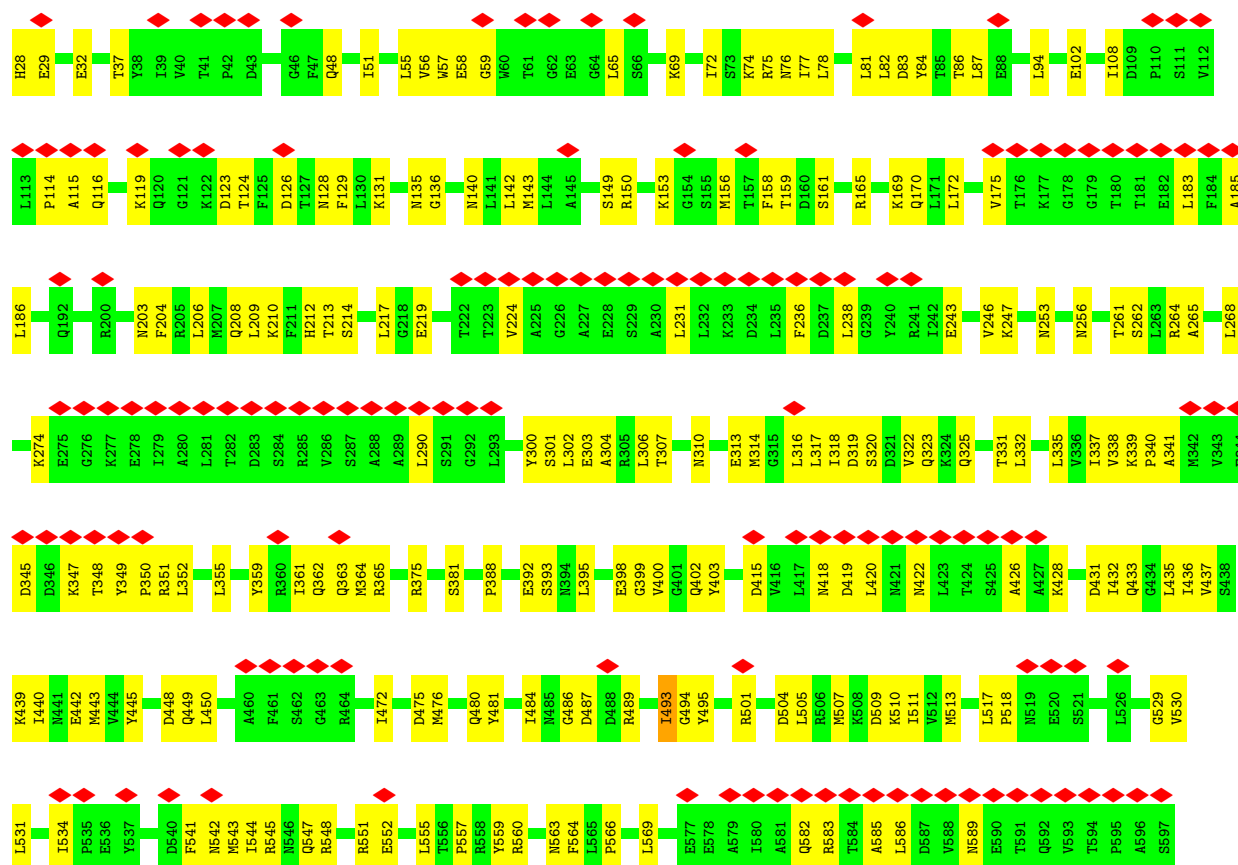


• Molecule 1: Major head protein

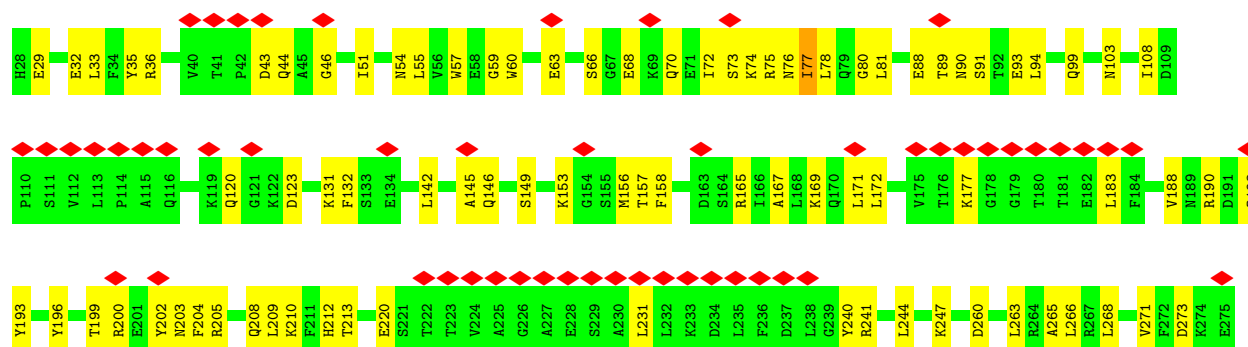


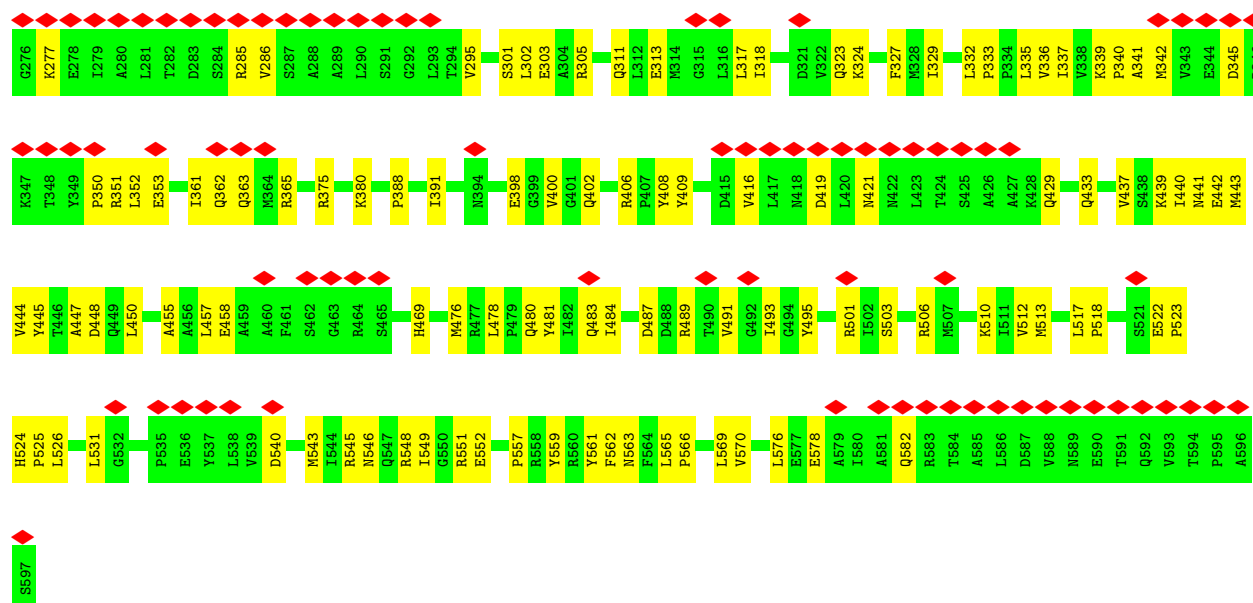


• Molecule 1: Major head protein

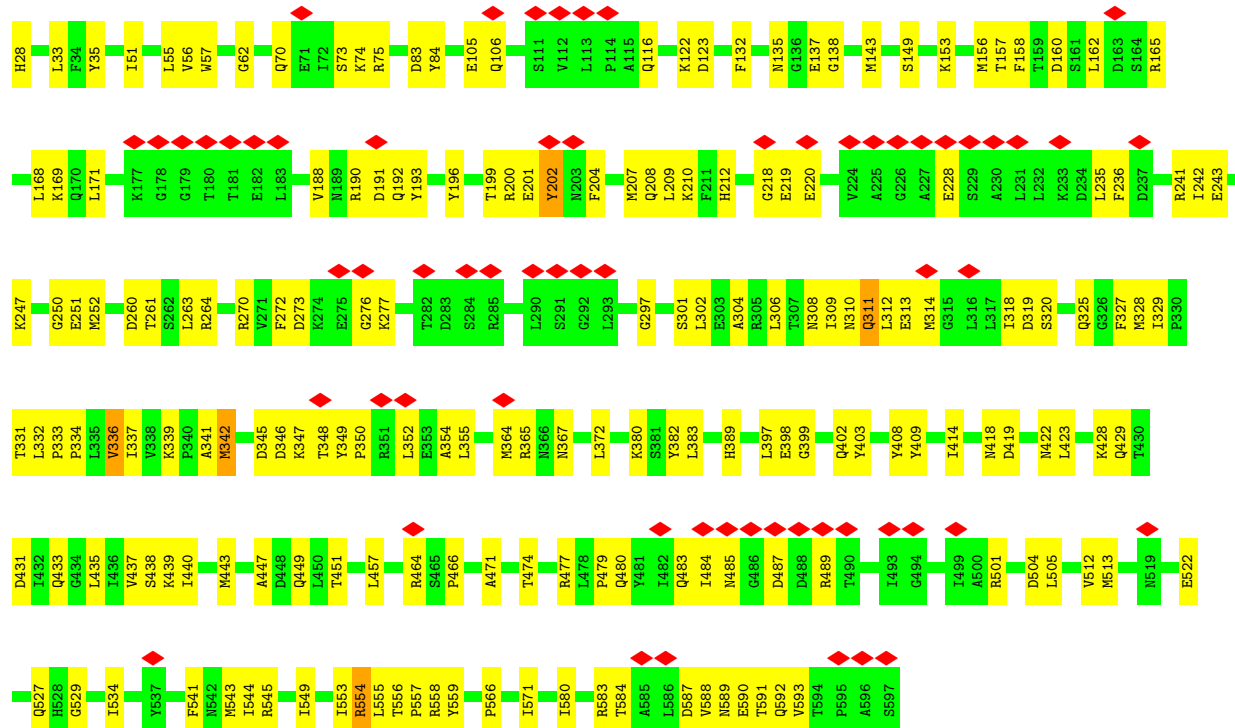


• Molecule 1: Major head protein



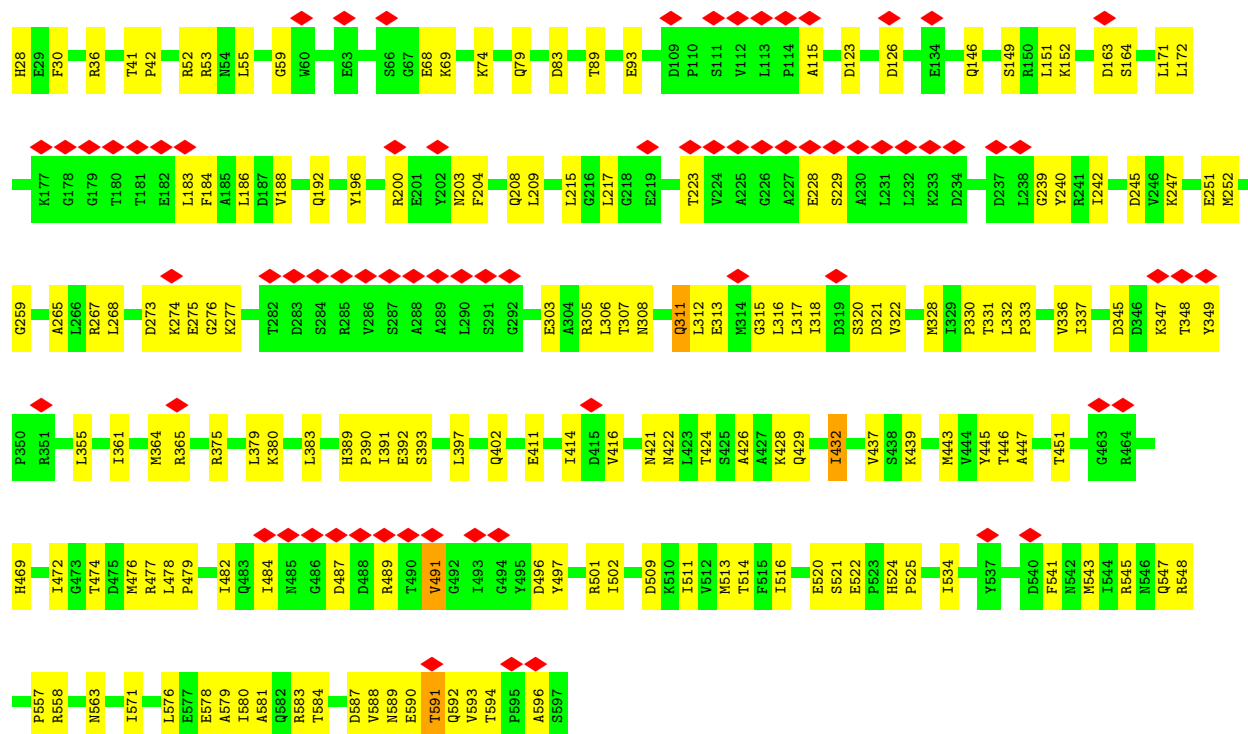


• Molecule 1: Major head protein



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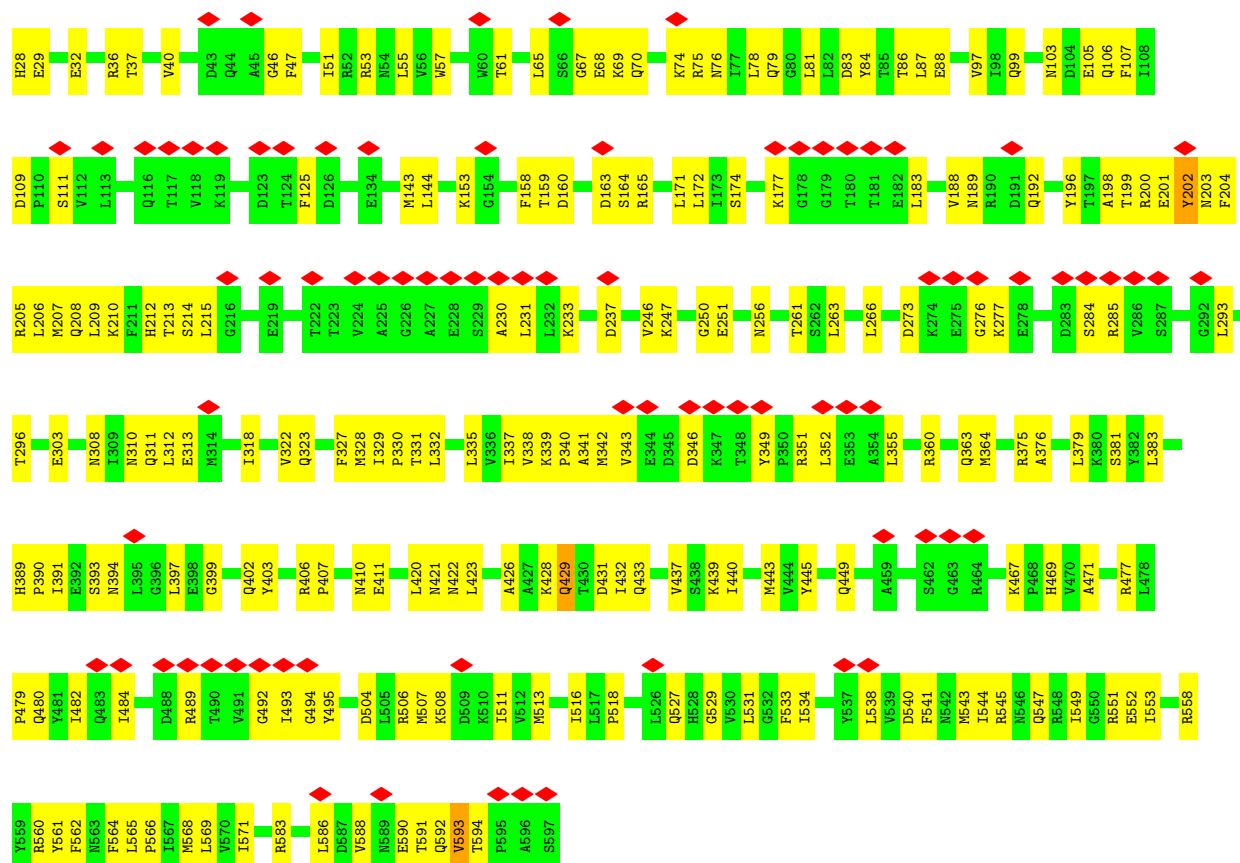




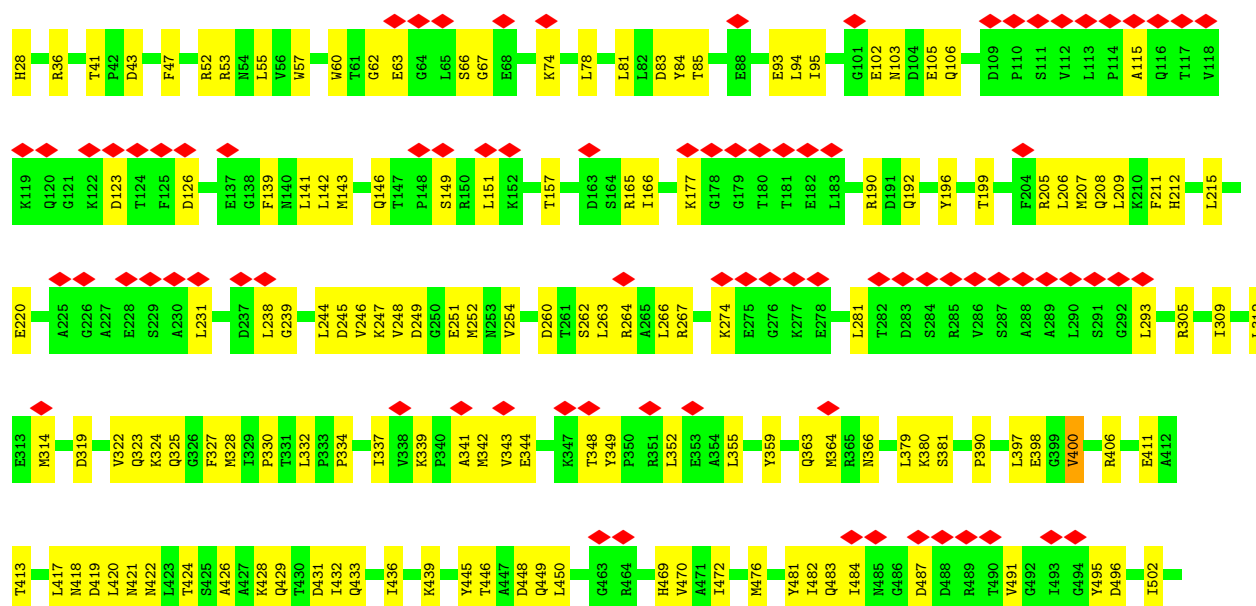
• Molecule 1: Major head protein



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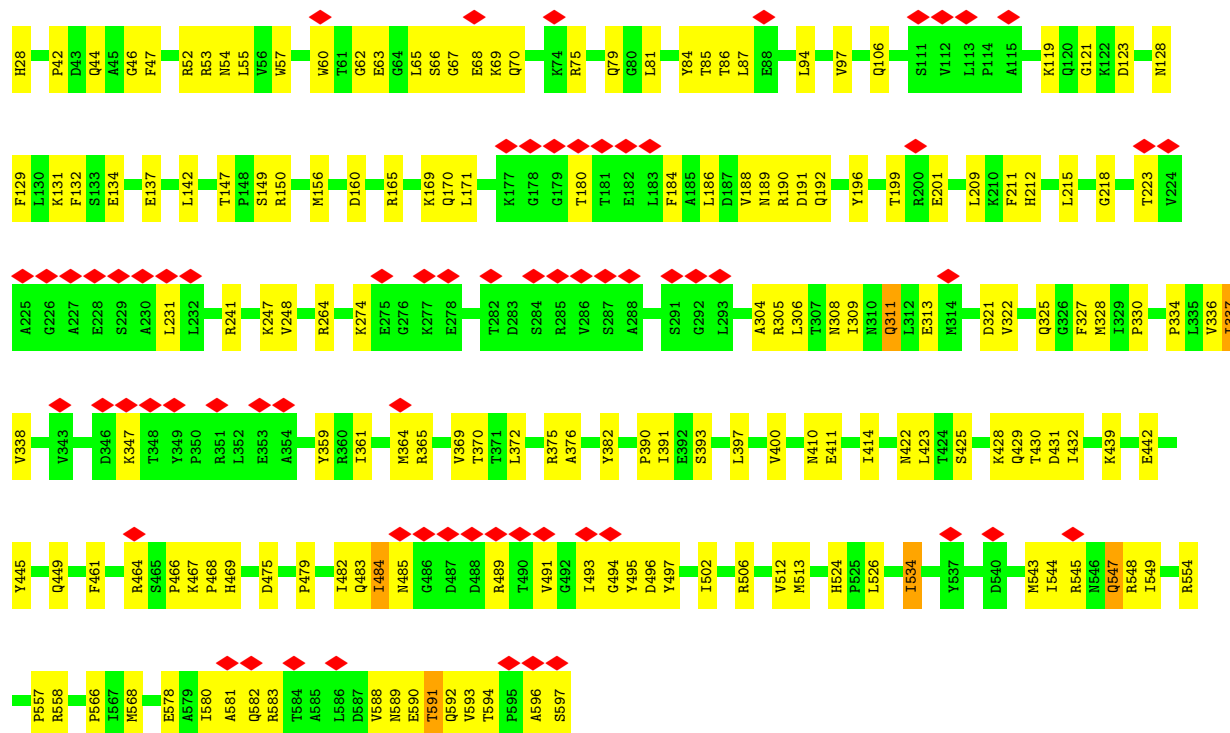


• Molecule 1: Major head protein

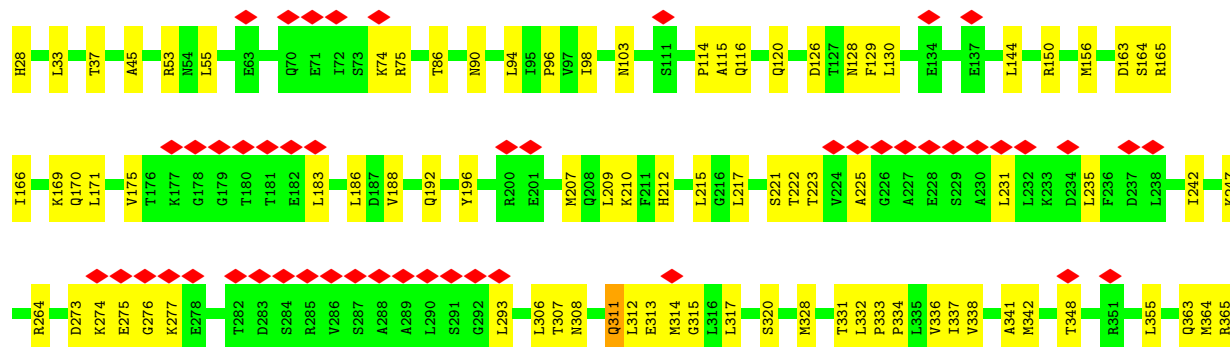
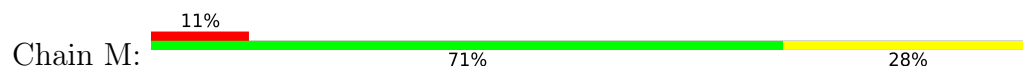


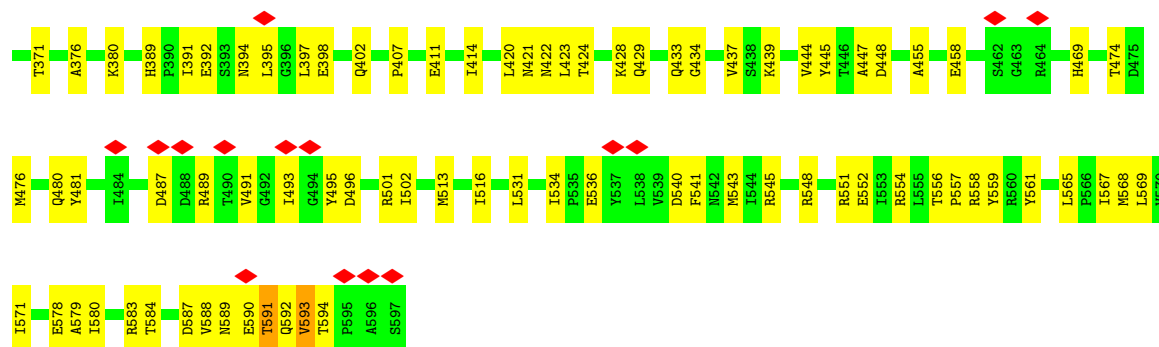


• Molecule 1: Major head protein

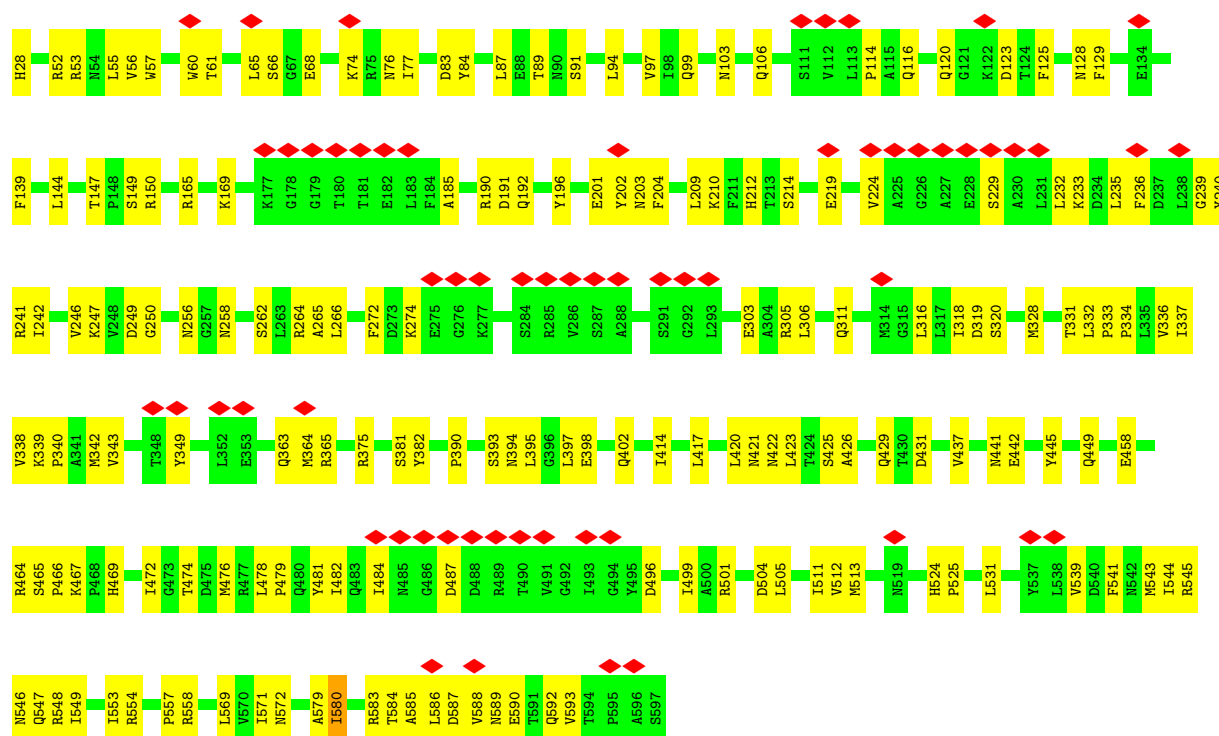


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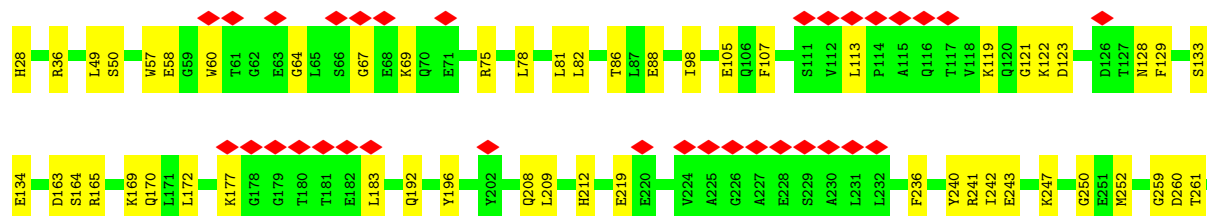


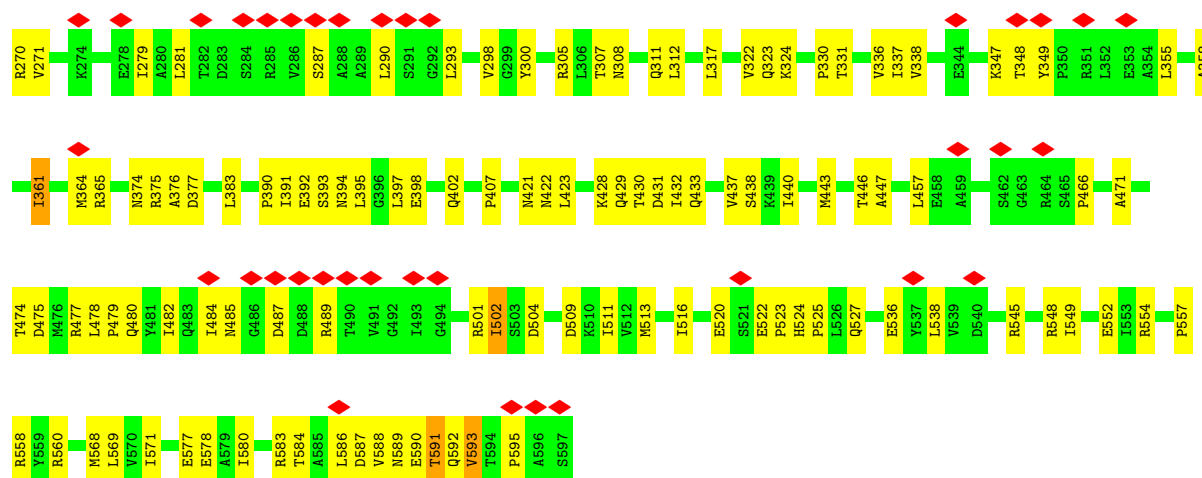


• Molecule 1: Major head protein

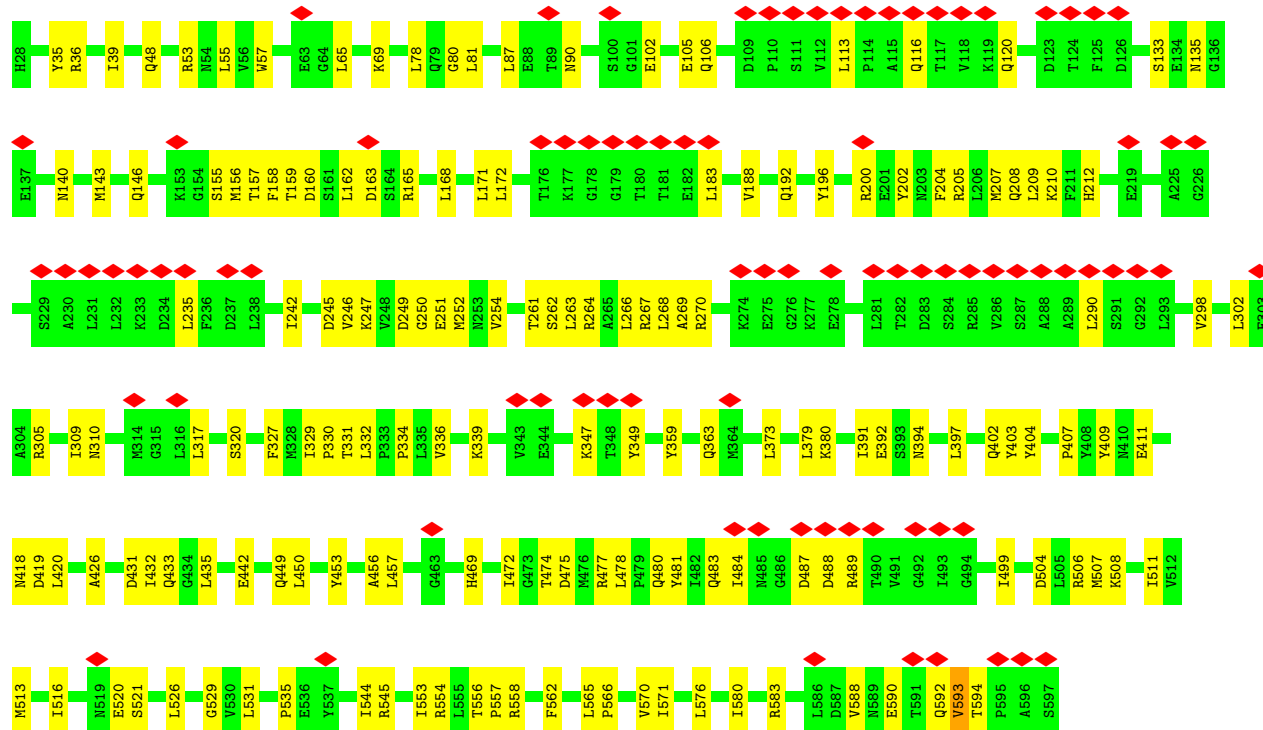


• Molecule 1: Major head protein

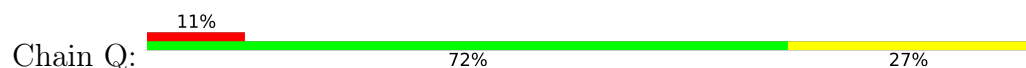


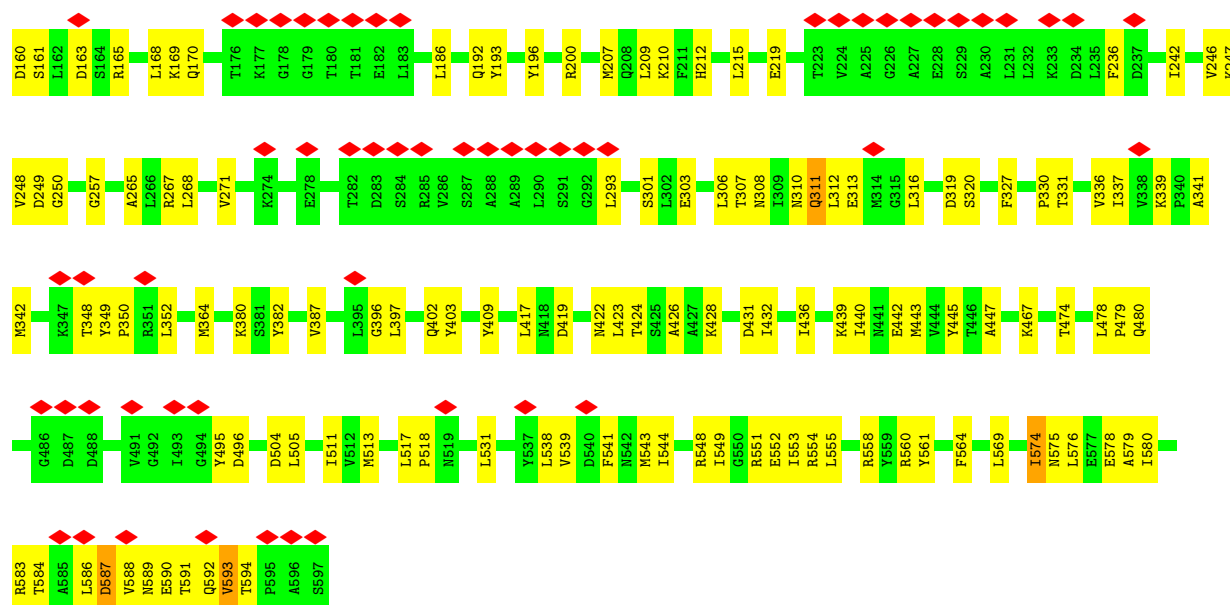


• Molecule 1: Major head protein

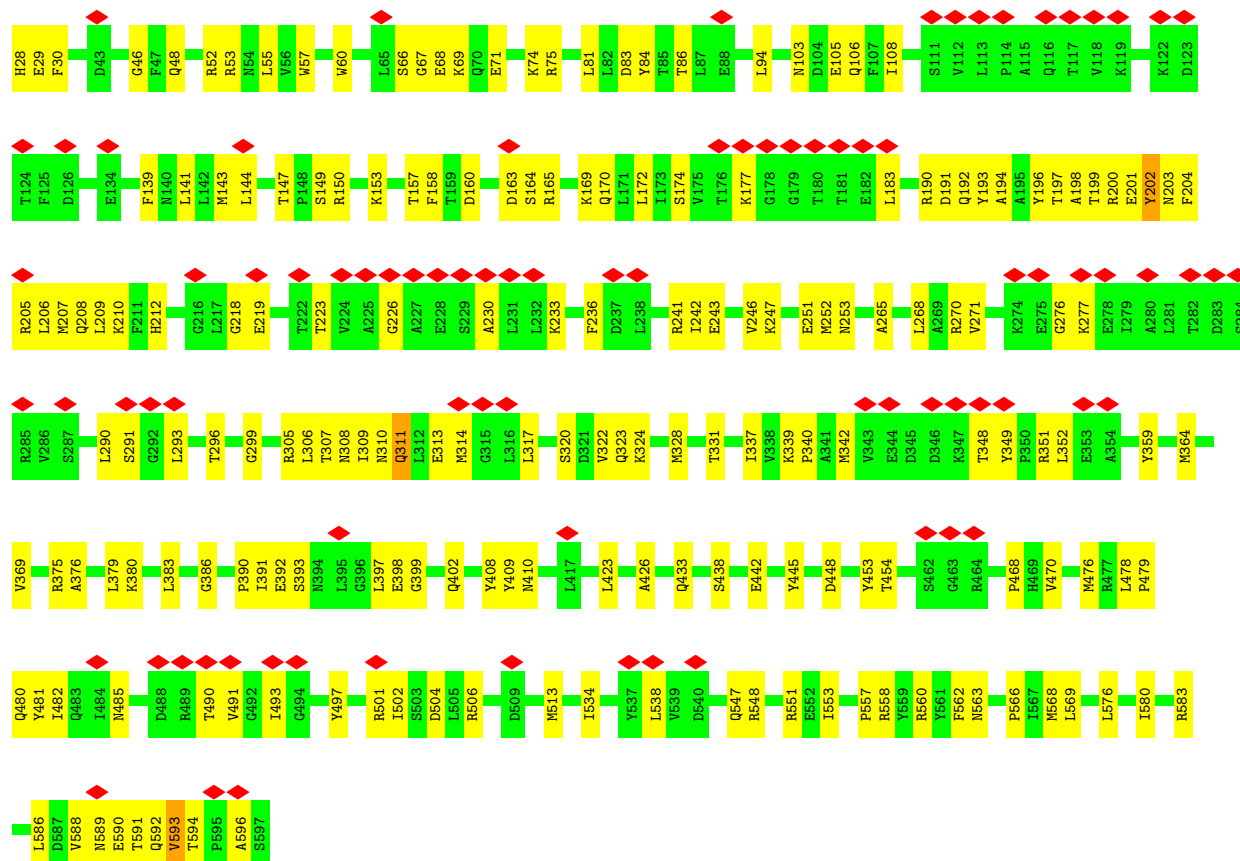


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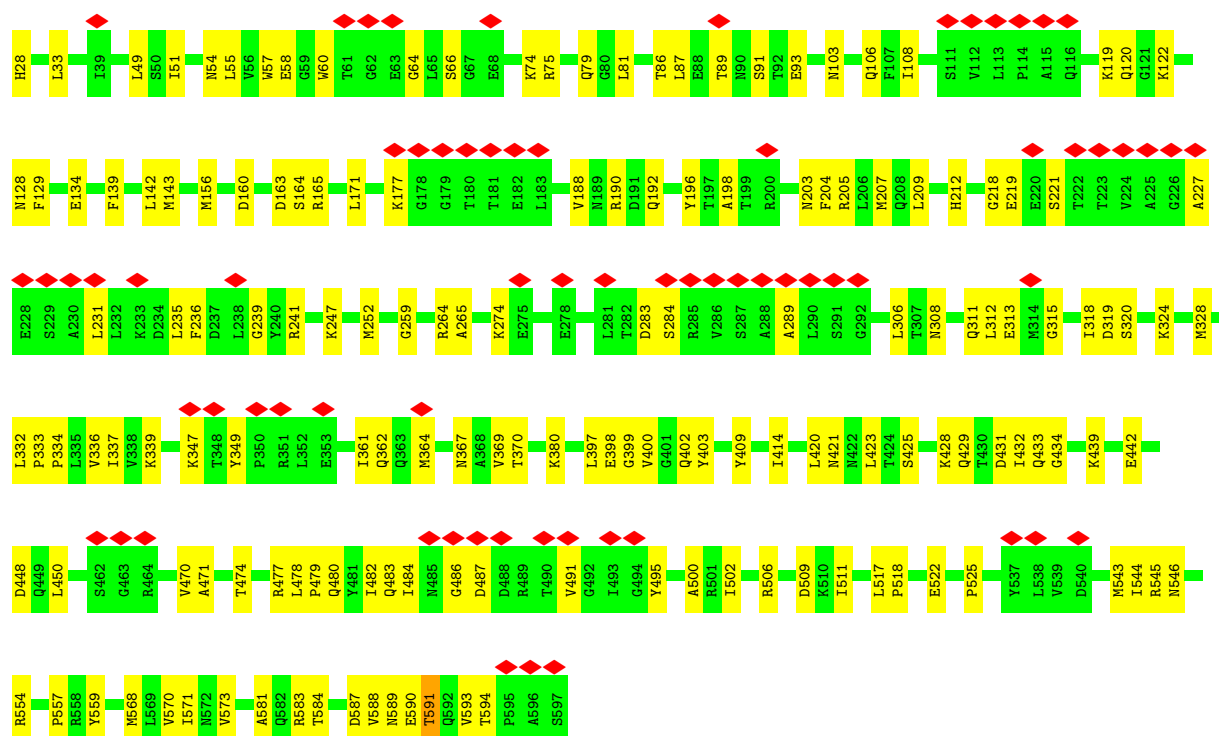
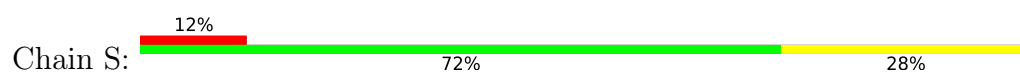




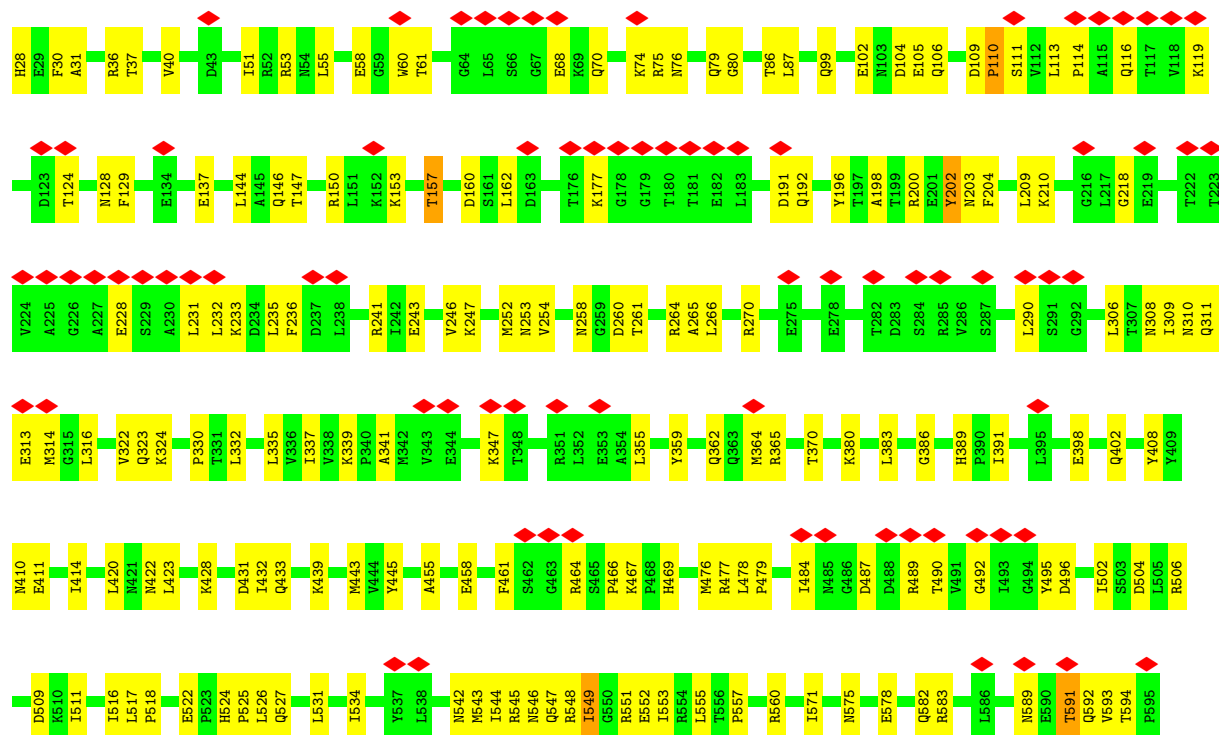
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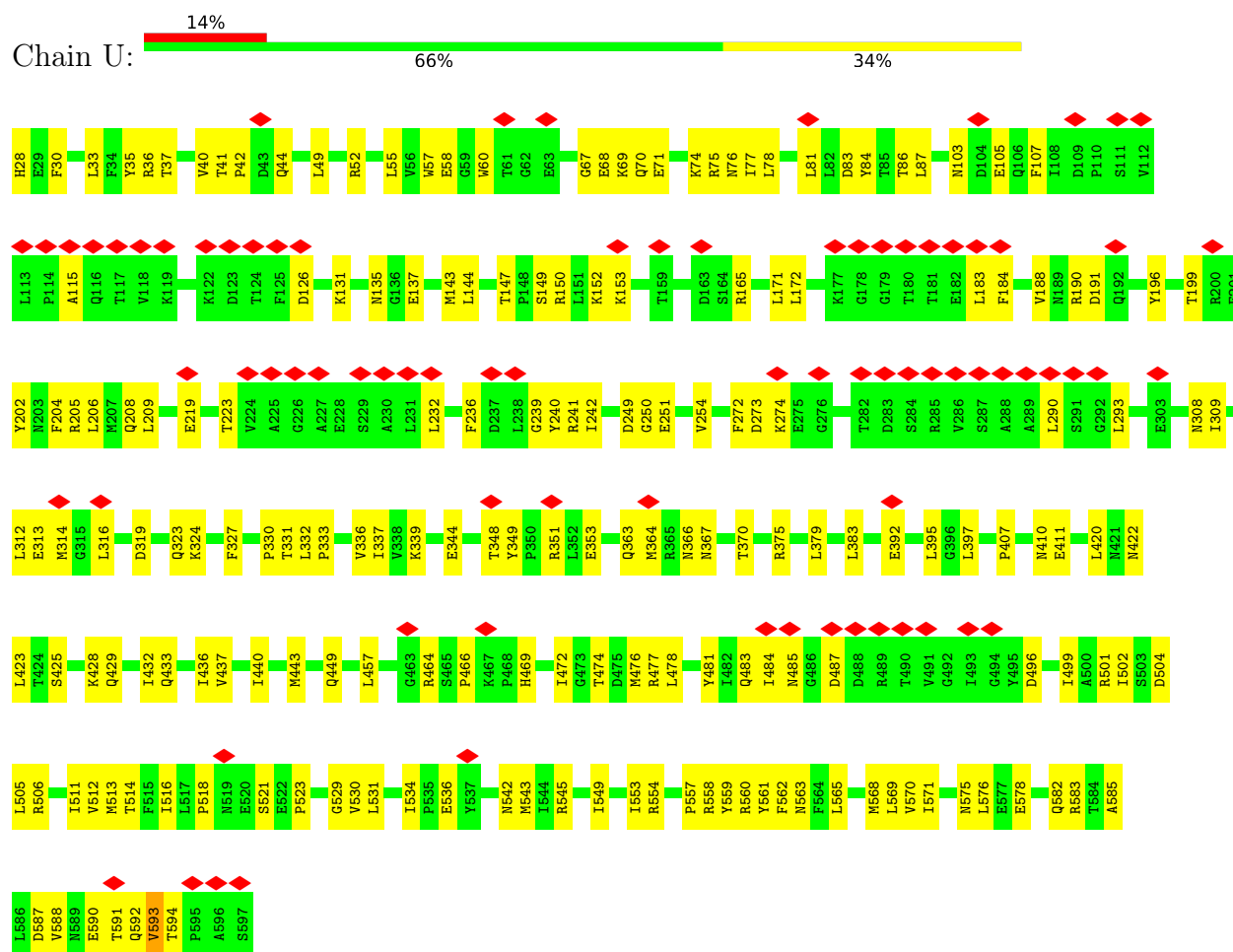


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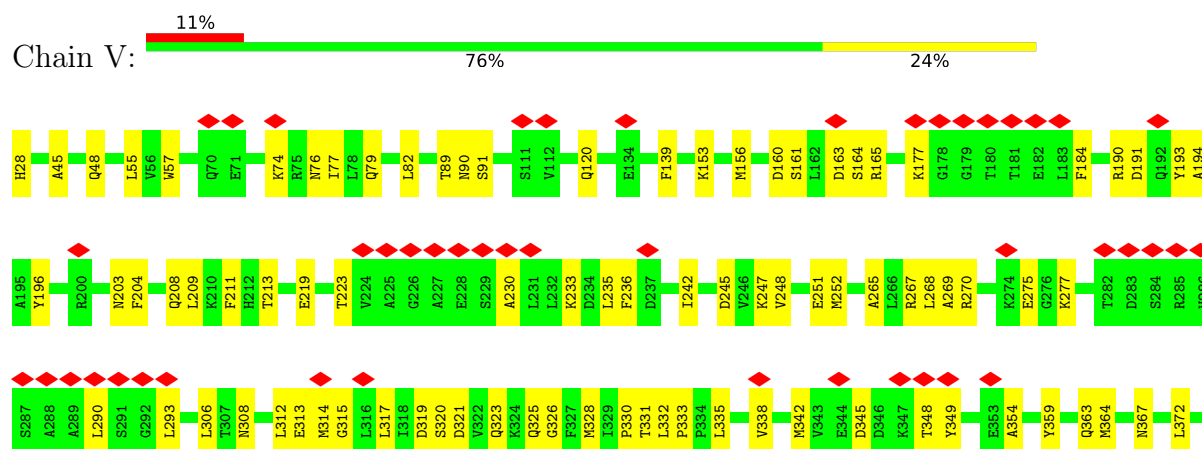


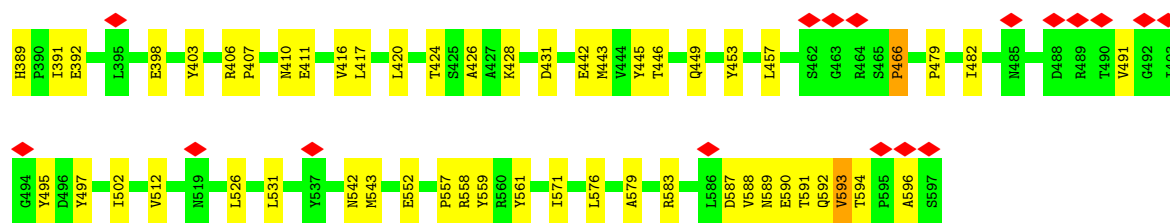
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• Molecule 1: Major head protein

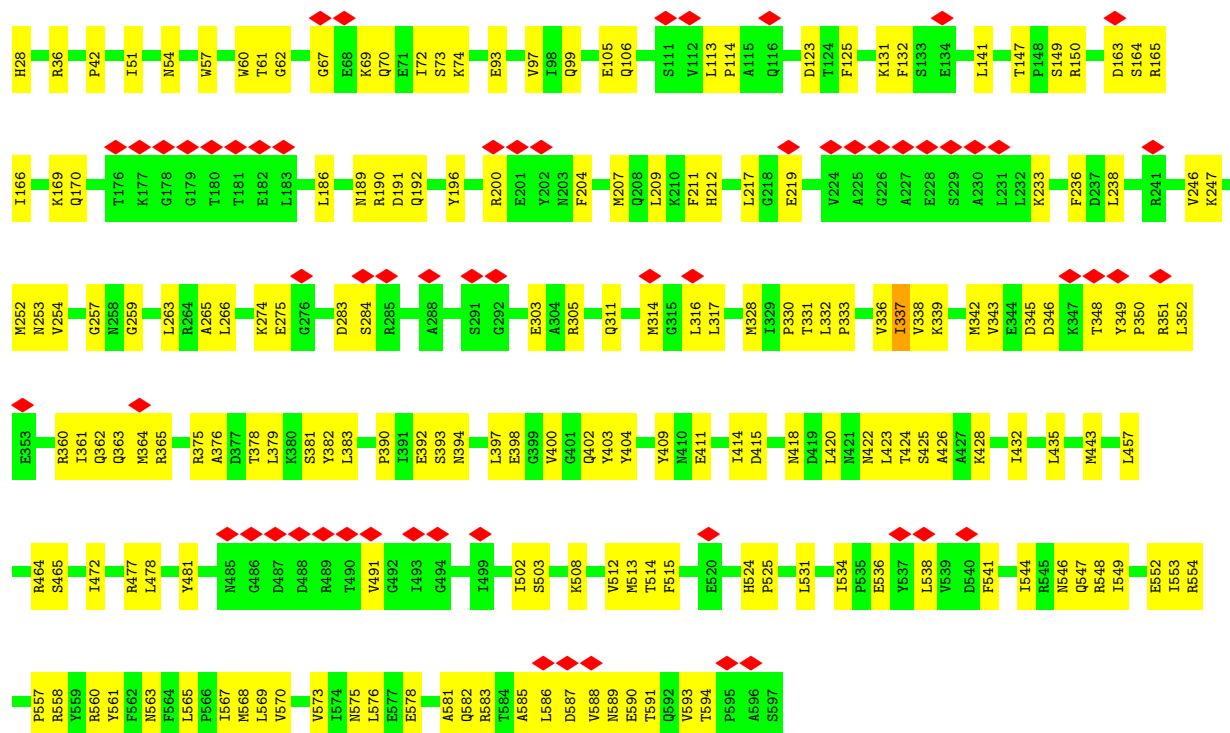


• Molecule 1: Major head protein

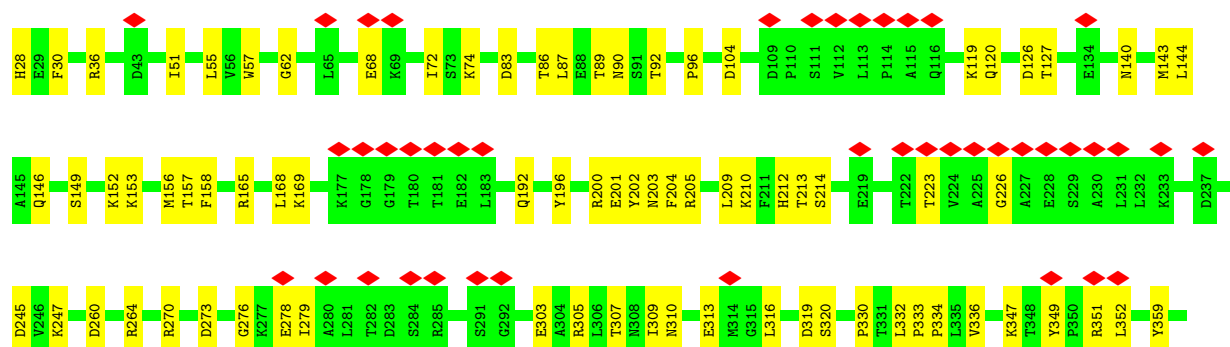


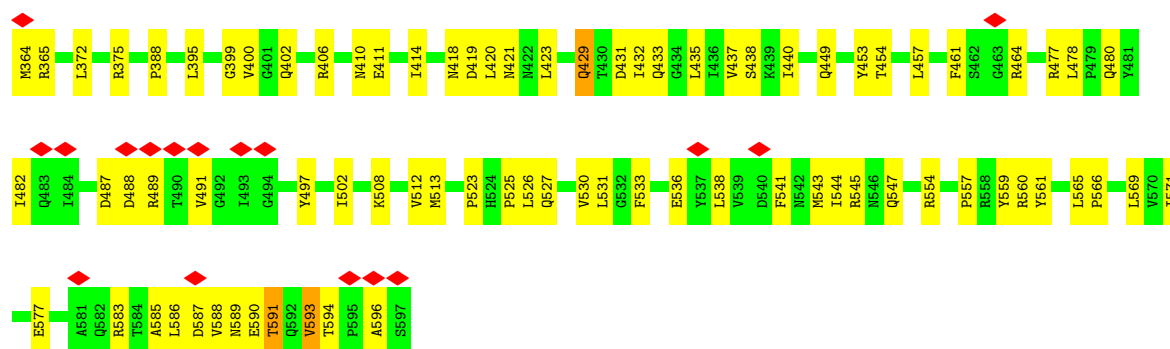


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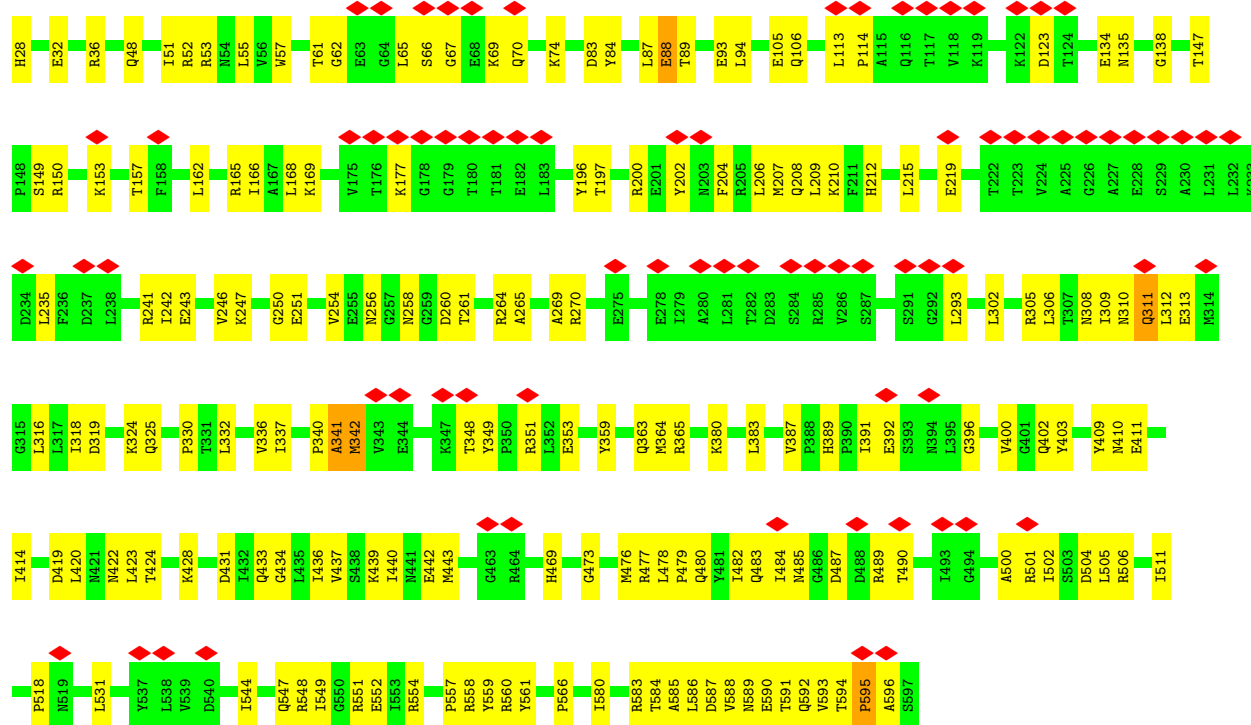


• Molecule 1: Major head protein

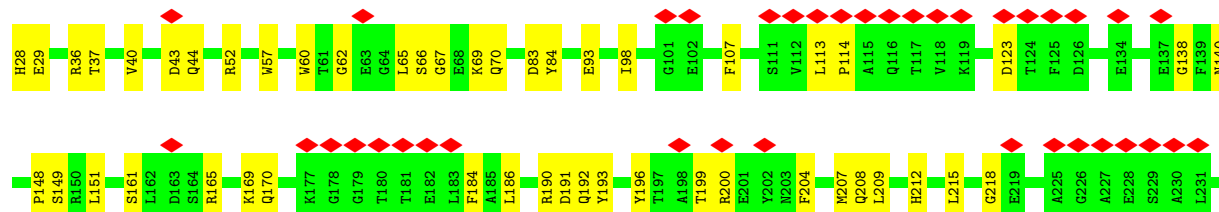




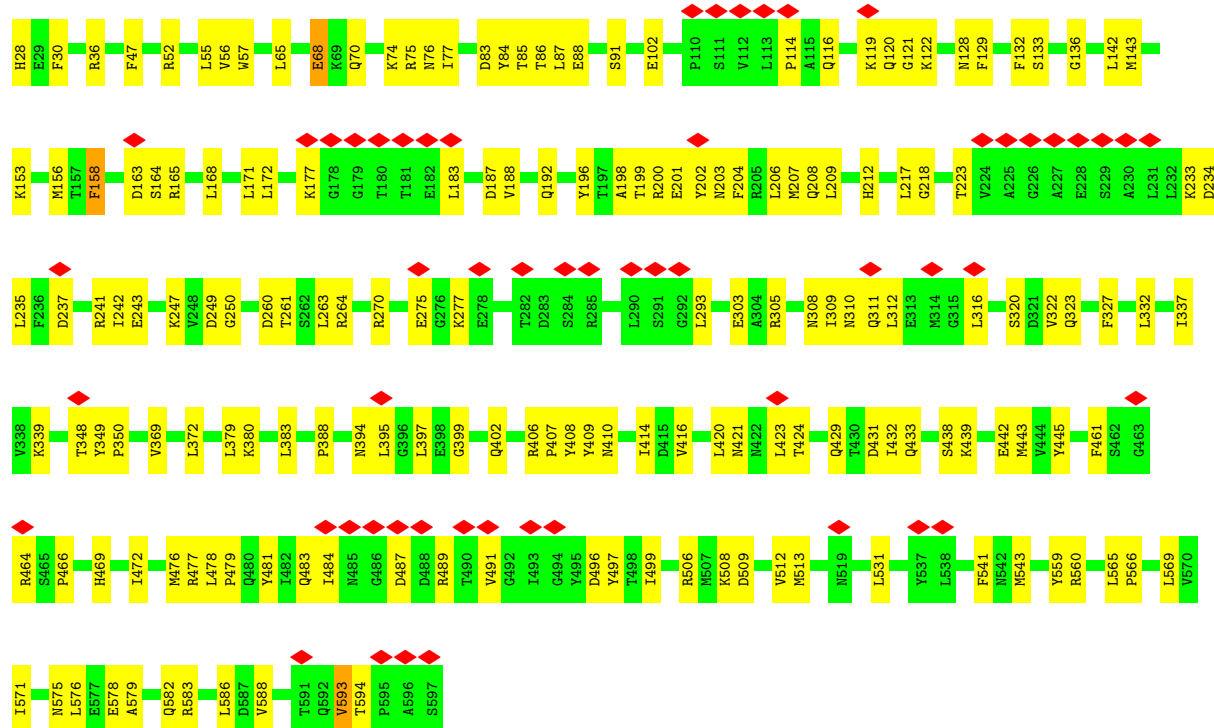
• Molecule 1: Major head protein



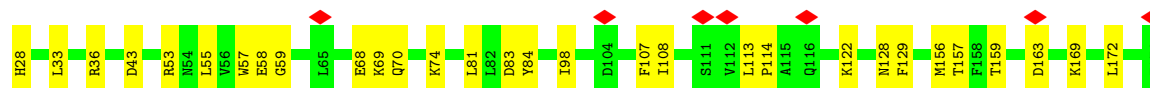
• Molecule 1: Major head protein

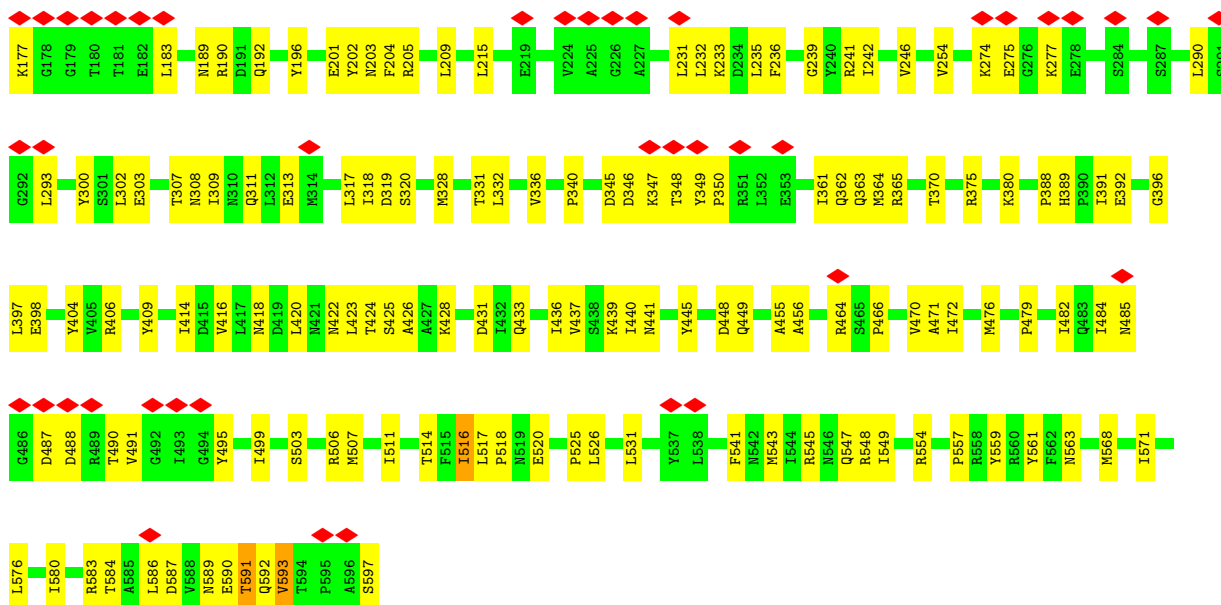


- Molecule 1: Major head protein

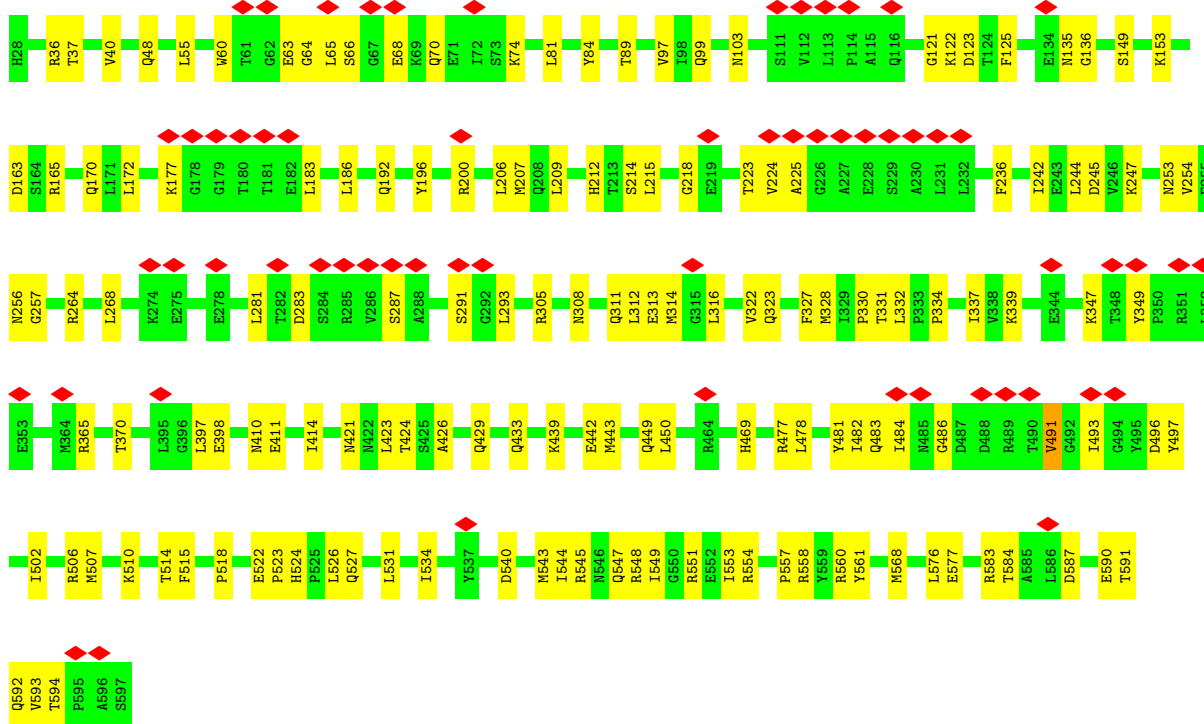
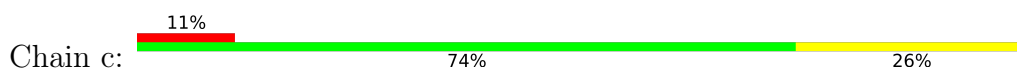


- Molecule 1: Major head protein

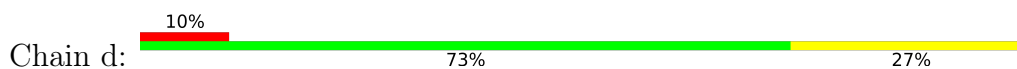


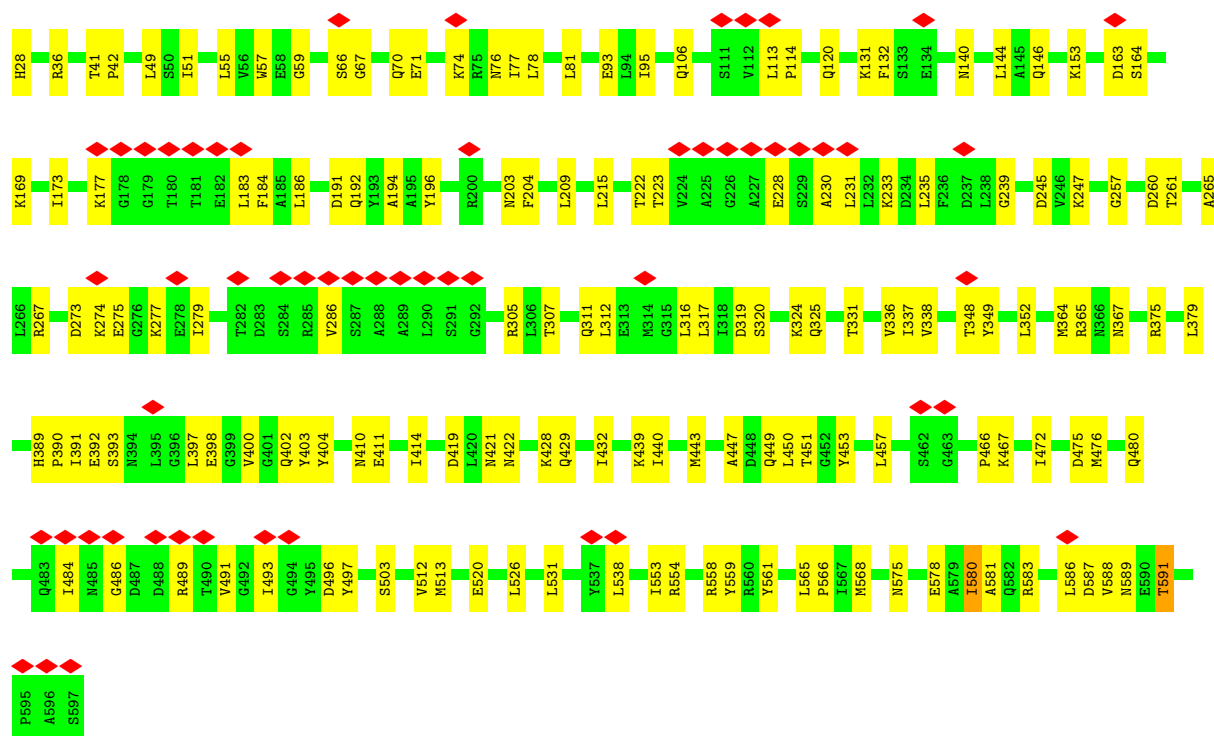


• Molecule 1: Major head protein

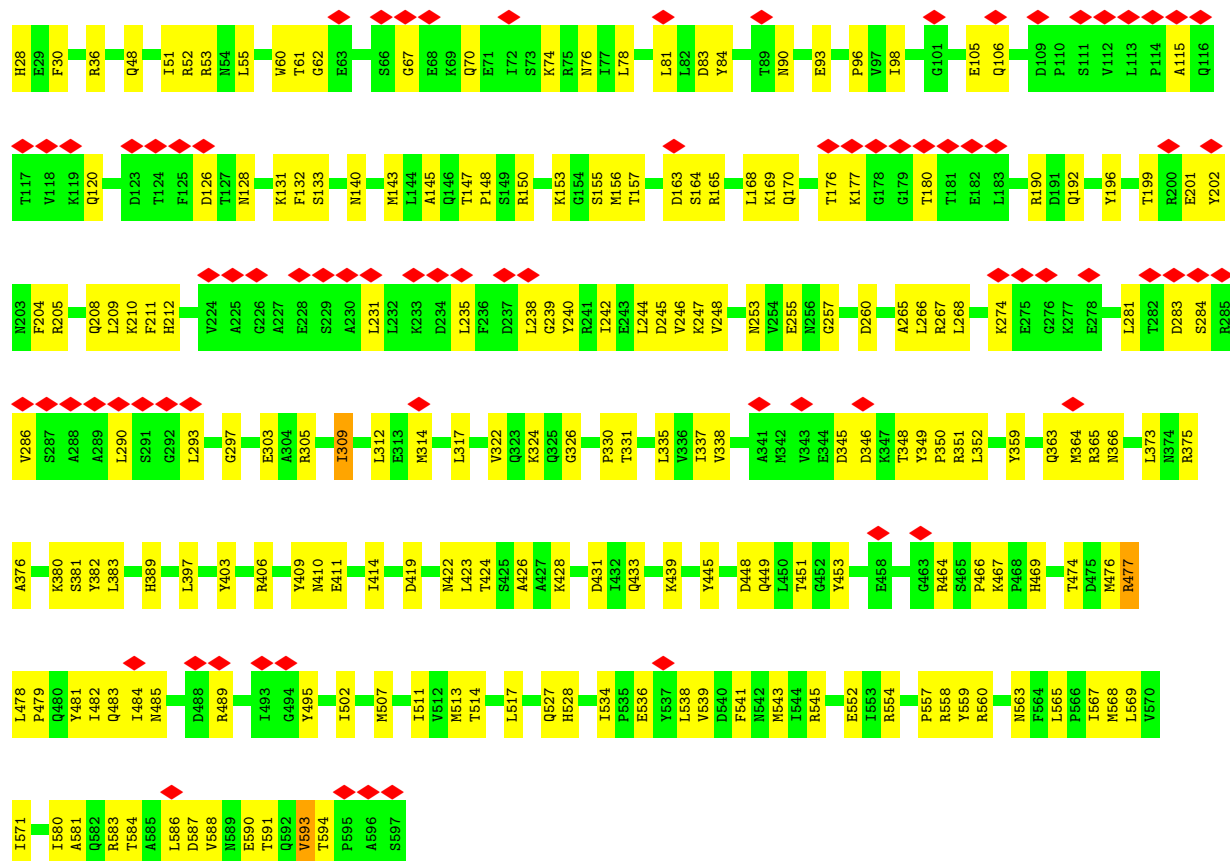


• Molecule 1: Major head protein





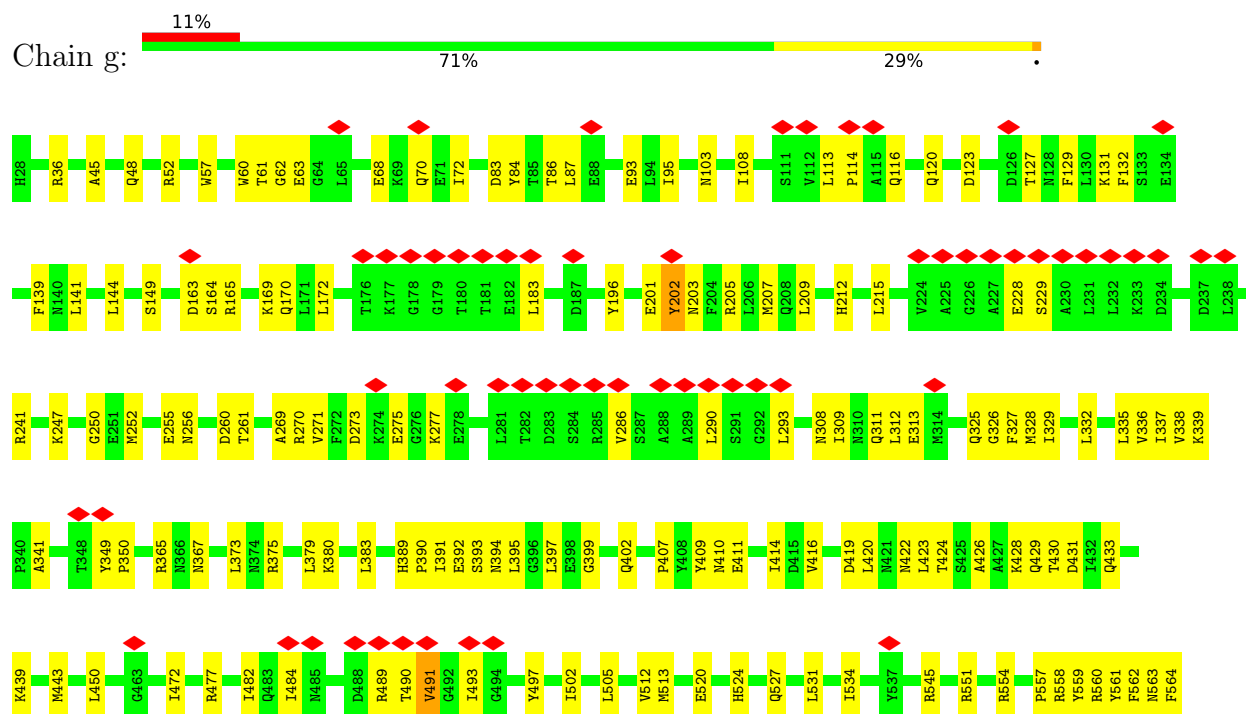
• Molecule 1: Major head protein

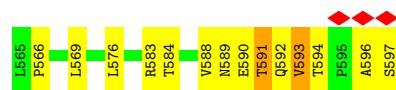


- Molecule 1: Major head protein

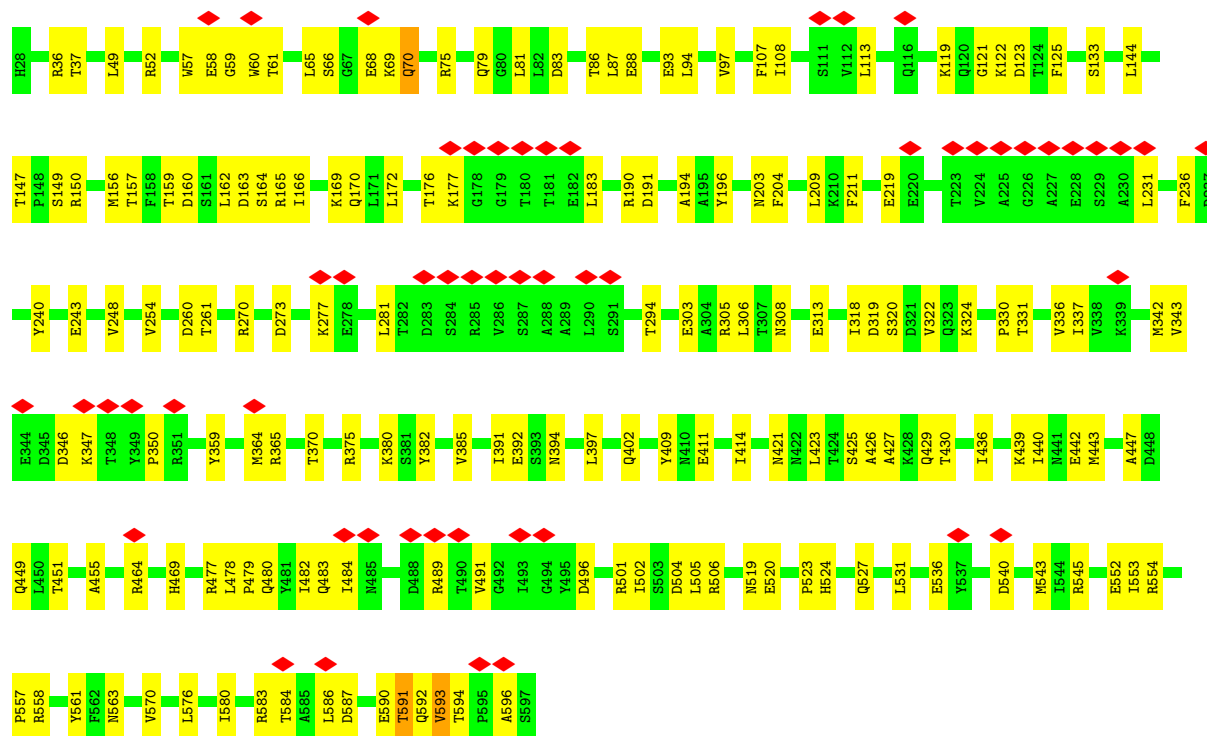


- Molecule 1: Major head protein

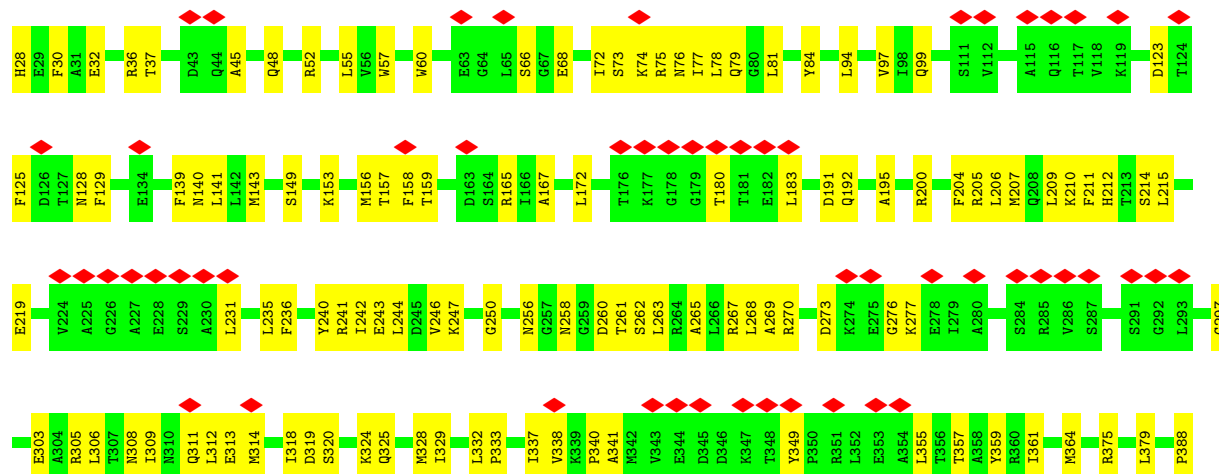


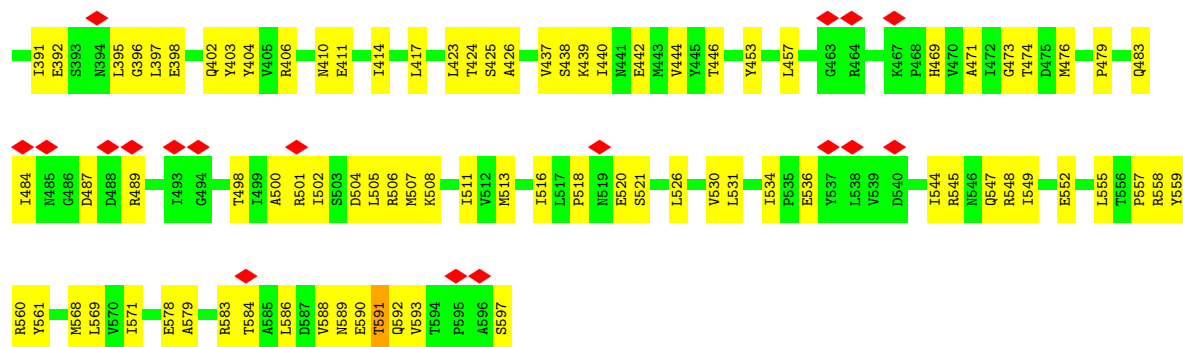


• Molecule 1: Major head protein

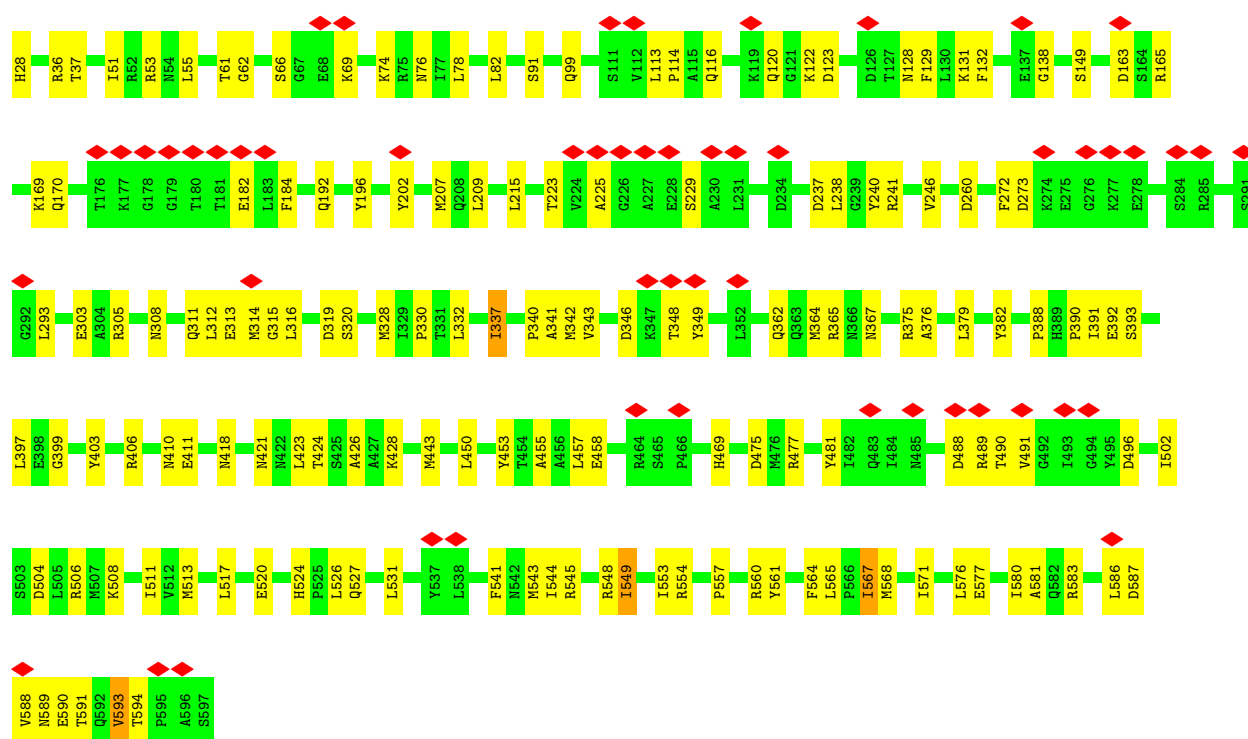
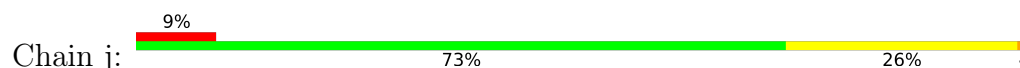


• Molecule 1: Major head protein





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4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	19193	Depositor
Resolution determination method	FSC 0.33 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	5000	Depositor
Magnification	64000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.022	Depositor
Minimum map value	-0.008	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.001	Depositor
Recommended contour level	0.006	Depositor
Map size (Å)	1644.0, 1644.0, 1644.0	wwPDB
Map dimensions	800, 800, 800	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.055, 2.055, 2.055	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	A	0.20	0/4559	0.48	3/6184 (0.0%)
1	B	0.21	0/4559	0.49	1/6184 (0.0%)
1	C	0.21	0/4559	0.49	0/6184
1	D	0.21	0/4559	0.48	0/6184
1	E	0.20	0/4559	0.47	2/6184 (0.0%)
1	G	0.21	0/4559	0.49	1/6184 (0.0%)
1	H	0.22	1/4559 (0.0%)	0.48	1/6184 (0.0%)
1	I	0.21	0/4559	0.53	6/6184 (0.1%)
1	J	0.22	0/4559	0.53	3/6184 (0.0%)
1	K	0.22	0/4559	0.55	3/6184 (0.0%)
1	L	0.22	0/4559	0.50	1/6184 (0.0%)
1	M	0.21	0/4559	0.53	2/6184 (0.0%)
1	N	0.21	0/4559	0.49	0/6184
1	O	0.22	0/4559	0.51	3/6184 (0.0%)
1	P	0.20	0/4559	0.48	2/6184 (0.0%)
1	Q	0.21	0/4559	0.50	2/6184 (0.0%)
1	R	0.24	0/4559	0.56	3/6184 (0.0%)
1	S	0.22	0/4559	0.51	1/6184 (0.0%)
1	T	0.22	0/4559	0.50	1/6184 (0.0%)
1	U	0.21	0/4559	0.49	2/6184 (0.0%)
1	V	0.21	0/4559	0.51	4/6184 (0.1%)
1	W	0.22	0/4559	0.51	1/6184 (0.0%)
1	X	0.21	0/4559	0.50	3/6184 (0.0%)
1	Y	0.20	0/4559	0.53	3/6184 (0.0%)
1	Z	0.28	1/4559 (0.0%)	0.56	5/6184 (0.1%)
1	a	0.22	0/4559	0.51	4/6184 (0.1%)
1	b	0.20	0/4559	0.50	2/6184 (0.0%)
1	c	0.22	0/4559	0.52	3/6184 (0.0%)
1	d	0.21	0/4559	0.50	0/6184
1	e	0.21	0/4559	0.53	3/6184 (0.0%)
1	f	0.22	0/4559	0.51	3/6184 (0.0%)
1	g	0.21	0/4559	0.51	4/6184 (0.1%)
1	h	0.22	1/4559 (0.0%)	0.57	3/6184 (0.0%)
1	i	0.21	0/4559	0.48	0/6184

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	j	0.21	0/4559	0.67	2/6184 (0.0%)
All	All	0.22	3/159565 (0.0%)	0.52	77/216440 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	G	0	2
1	H	0	1
1	K	0	1
1	L	0	1
1	M	0	1
1	O	0	1
1	S	0	1
1	T	0	2
1	X	0	1
1	Y	0	2
1	Z	0	1
1	a	0	1
1	b	0	1
1	c	0	1
1	d	0	1
1	e	0	1
1	g	0	1
1	h	0	1
1	i	0	2
1	j	0	1
All	All	0	24

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Z	330	PRO	CG-CD	-11.59	1.11	1.50
1	H	593	VAL	C-N	-6.13	1.20	1.33
1	h	593	VAL	C-N	-5.11	1.27	1.33

All (77) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	j	593	VAL	CA-C-N	25.61	163.02	122.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	j	593	VAL	C-N-CA	25.61	163.02	122.56
1	h	593	VAL	CA-C-N	16.24	148.22	122.56
1	h	593	VAL	C-N-CA	16.24	148.22	122.56
1	Z	330	PRO	N-CD-CG	-14.30	81.75	103.20
1	e	593	VAL	CA-C-N	11.77	150.51	121.80
1	e	593	VAL	C-N-CA	11.77	150.51	121.80
1	R	593	VAL	CA-C-N	9.94	138.26	122.56
1	R	593	VAL	C-N-CA	9.94	138.26	122.56
1	K	593	VAL	CA-C-N	8.99	143.73	121.80
1	K	593	VAL	C-N-CA	8.99	143.73	121.80
1	Z	330	PRO	CA-N-CD	-8.86	99.59	112.00
1	U	593	VAL	CA-C-N	8.83	143.34	121.80
1	U	593	VAL	C-N-CA	8.83	143.34	121.80
1	I	593	VAL	CA-C-N	8.82	136.49	122.56
1	I	593	VAL	C-N-CA	8.82	136.49	122.56
1	e	309	ILE	N-CA-C	-8.32	104.36	113.43
1	M	593	VAL	CA-C-N	7.91	141.11	121.80
1	M	593	VAL	C-N-CA	7.91	141.11	121.80
1	O	593	VAL	CA-C-N	-7.90	110.09	120.67
1	O	593	VAL	C-N-CA	-7.90	110.09	120.67
1	O	593	VAL	N-CA-C	-7.88	106.22	113.71
1	J	593	VAL	CA-C-N	7.86	140.97	121.80
1	J	593	VAL	C-N-CA	7.86	140.97	121.80
1	Z	330	PRO	CA-CB-CG	-7.61	90.04	104.50
1	V	466	PRO	CA-C-N	-7.41	110.74	120.67
1	V	466	PRO	C-N-CA	-7.41	110.74	120.67
1	A	491	VAL	N-CA-C	-7.14	106.92	113.71
1	X	593	VAL	CA-C-N	7.08	139.09	121.80
1	X	593	VAL	C-N-CA	7.08	139.09	121.80
1	c	491	VAL	N-CA-C	-7.04	106.44	113.20
1	g	593	VAL	N-CA-C	-6.97	106.01	112.43
1	g	491	VAL	N-CA-C	-6.91	106.57	113.20
1	I	491	VAL	N-CA-C	-6.87	106.61	113.20
1	Z	309	ILE	N-CA-C	-6.73	105.54	113.42
1	X	482	ILE	N-CA-C	-6.73	105.78	112.17
1	Y	400	VAL	N-CA-C	-6.65	106.82	113.20
1	f	593	VAL	CA-C-N	6.64	137.99	121.80
1	f	593	VAL	C-N-CA	6.64	137.99	121.80
1	Z	491	VAL	N-CA-C	-6.41	107.05	113.20
1	L	484	ILE	N-CA-C	-6.38	106.56	112.43
1	V	593	VAL	CA-C-N	6.25	137.04	121.80
1	V	593	VAL	C-N-CA	6.25	137.04	121.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	b	593	VAL	CA-C-N	6.24	137.03	121.80
1	b	593	VAL	C-N-CA	6.24	137.03	121.80
1	Y	66	SER	N-CA-C	-6.15	103.26	112.54
1	Y	342	MET	N-CA-C	-6.06	106.86	114.56
1	f	311	GLN	N-CA-C	6.05	117.99	110.91
1	T	110	PRO	CA-N-CD	-5.91	103.73	112.00
1	E	493	ILE	N-CA-C	-5.78	107.27	112.12
1	W	491	VAL	N-CA-C	-5.73	107.69	113.47
1	I	143	MET	N-CA-C	-5.72	107.54	114.75
1	K	400	VAL	N-CA-C	-5.71	107.25	112.96
1	g	426	ALA	N-CA-C	-5.71	107.30	114.56
1	G	342	MET	N-CA-C	-5.71	107.30	114.56
1	H	491	VAL	N-CA-C	-5.70	107.73	113.20
1	R	482	ILE	N-CA-C	-5.62	107.64	113.10
1	a	593	VAL	CA-C-N	5.62	135.52	121.80
1	a	593	VAL	C-N-CA	5.62	135.52	121.80
1	E	491	VAL	N-CA-C	-5.60	106.33	113.22
1	A	145	ALA	CA-C-N	5.60	132.23	121.54
1	A	145	ALA	C-N-CA	5.60	132.23	121.54
1	h	491	VAL	N-CA-C	-5.49	107.93	113.20
1	P	593	VAL	CA-C-N	5.38	134.92	121.80
1	P	593	VAL	C-N-CA	5.38	134.92	121.80
1	I	364	MET	CA-C-N	-5.37	113.89	122.17
1	I	364	MET	C-N-CA	-5.37	113.89	122.17
1	B	491	VAL	N-CA-C	-5.31	107.21	113.42
1	Q	593	VAL	CA-C-N	5.28	134.69	121.80
1	Q	593	VAL	C-N-CA	5.28	134.69	121.80
1	c	224	VAL	N-CA-C	-5.28	107.60	112.83
1	c	523	PRO	CA-N-CD	-5.20	104.72	112.00
1	S	64	GLY	N-CA-C	-5.16	108.94	115.08
1	g	68	GLU	CB-CA-C	-5.11	109.15	115.89
1	J	68	GLU	CB-CA-C	-5.09	109.17	115.89
1	a	466	PRO	CA-C-N	-5.08	113.86	120.67
1	a	466	PRO	C-N-CA	-5.08	113.86	120.67

There are no chirality outliers.

All (24) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	G	336	VAL	Peptide
1	G	554	ARG	Sidechain
1	H	591	THR	Peptide

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Mol	Chain	Res	Type	Group
1	K	586	LEU	Peptide
1	L	591	THR	Peptide
1	M	591	THR	Peptide
1	O	591	THR	Peptide
1	S	591	THR	Peptide
1	T	157	THR	Peptide
1	T	591	THR	Peptide
1	X	591	THR	Peptide
1	Y	341	ALA	Peptide
1	Y	591	THR	Peptide
1	Z	591	THR	Peptide
1	a	158	PHE	Peptide
1	b	591	THR	Peptide
1	c	591	THR	Peptide
1	d	591	THR	Peptide
1	e	591	THR	Peptide
1	g	591	THR	Peptide
1	h	591	THR	Peptide
1	i	341	ALA	Peptide
1	i	591	THR	Peptide
1	j	341	ALA	Peptide

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	A	4483	0	4491	175	0
1	B	4483	0	4491	175	0
1	C	4483	0	4491	163	0
1	D	4483	0	4491	195	0
1	E	4483	0	4491	174	0
1	G	4483	0	4491	195	0
1	H	4483	0	4491	147	0
1	I	4483	0	4491	140	0
1	J	4483	0	4491	220	0
1	K	4483	0	4491	177	0
1	L	4483	0	4491	166	0
1	M	4483	0	4491	136	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	N	4483	0	4491	166	0
1	O	4483	0	4491	163	0
1	P	4483	0	4491	135	0
1	Q	4483	0	4491	147	0
1	R	4483	0	4491	183	0
1	S	4483	0	4491	141	0
1	T	4483	0	4491	174	0
1	U	4483	0	4491	174	0
1	V	4483	0	4491	111	0
1	W	4483	0	4491	175	0
1	X	4483	0	4491	147	0
1	Y	4483	0	4491	165	0
1	Z	4483	0	4491	153	0
1	a	4483	0	4491	147	0
1	b	4483	0	4491	151	0
1	c	4483	0	4491	135	0
1	d	4483	0	4491	131	0
1	e	4483	0	4490	200	0
1	f	4483	0	4491	180	0
1	g	4483	0	4491	148	0
1	h	4483	0	4490	143	0
1	i	4483	0	4491	182	0
1	j	4483	0	4490	134	0
All	All	156905	0	157182	4674	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 15.

All (4674) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:331:THR:HB	1:C:305:ARG:HH12	1.21	1.01
1:U:28:HIS:N	1:U:364:MET:SD	2.40	0.94
1:M:445:TYR:OH	1:Q:480:GLN:NE2	2.03	0.92
1:J:560:ARG:HH12	1:K:165:ARG:HH21	1.15	0.92
1:f:543:MET:HE3	1:f:545:ARG:HG3	1.48	0.92
1:D:136:GLY:HA3	1:Z:267:ARG:HH12	1.32	0.91
1:E:429:GLN:HE22	1:E:433:GLN:HE21	1.19	0.90
1:A:81:LEU:HA	1:E:365:ARG:HH22	1.36	0.90
1:D:339:LYS:HB3	1:D:551:ARG:HB2	1.53	0.90
1:C:365:ARG:HH22	1:D:81:LEU:HA	1.35	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:28:HIS:N	1:V:364:MET:SD	2.44	0.89
1:A:583:ARG:NH1	1:B:442:GLU:OE1	2.06	0.89
1:B:339:LYS:HD3	1:B:340:PRO:HD2	1.51	0.89
1:Z:359:TYR:HE1	1:Z:557:PRO:HB3	1.38	0.89
1:i:476:MET:SD	1:i:501:ARG:NH2	2.46	0.88
1:c:424:THR:HG22	1:c:426:ALA:H	1.39	0.88
1:G:218:GLY:HA2	1:G:241:ARG:HH12	1.37	0.88
1:K:211:PHE:HB3	1:K:248:VAL:HB	1.55	0.88
1:Y:28:HIS:N	1:Y:364:MET:SD	2.48	0.87
1:K:36:ARG:HH12	1:K:521:SER:HA	1.39	0.87
1:I:548:ARG:NH1	1:f:310:ASN:OD1	2.06	0.86
1:I:28:HIS:N	1:I:364:MET:SD	2.49	0.86
1:U:502:ILE:HG22	1:U:504:ASP:H	1.39	0.86
1:V:55:LEU:HD13	1:V:74:LYS:HD2	1.58	0.86
1:f:75:ARG:NH1	1:f:86:THR:OG1	2.09	0.86
1:O:330:PRO:HG3	1:R:165:ARG:HD3	1.57	0.86
1:V:247:LYS:HD2	1:V:265:ALA:HB3	1.57	0.86
1:O:502:ILE:HG22	1:O:504:ASP:H	1.42	0.85
1:U:308:ASN:ND2	1:U:313:GLU:OE1	2.10	0.85
1:e:28:HIS:N	1:e:364:MET:SD	2.49	0.85
1:Y:308:ASN:ND2	1:Y:310:ASN:OD1	2.09	0.85
1:D:238:LEU:O	1:D:274:LYS:NZ	2.10	0.84
1:f:218:GLY:HA2	1:f:241:ARG:HE	1.42	0.84
1:a:476:MET:SD	1:d:449:GLN:NE2	2.50	0.84
1:e:331:THR:HA	1:e:558:ARG:HG2	1.58	0.84
1:H:163:ASP:OD1	1:H:164:SER:N	2.11	0.84
1:H:311:GLN:NE2	1:H:313:GLU:O	2.11	0.84
1:J:159:THR:HB	1:i:340:PRO:HB3	1.58	0.84
1:M:376:ALA:HA	1:M:568:MET:HE1	1.60	0.84
1:N:513:MET:HB2	1:N:569:LEU:HB2	1.60	0.84
1:P:78:LEU:HA	1:P:81:LEU:HD23	1.59	0.84
1:T:28:HIS:N	1:T:364:MET:SD	2.51	0.84
1:O:440:ILE:HG13	1:O:513:MET:HE1	1.58	0.84
1:e:587:ASP:H	1:i:583:ARG:HH21	1.25	0.84
1:Q:28:HIS:N	1:Q:364:MET:SD	2.51	0.83
1:h:303:GLU:OE1	1:h:305:ARG:NH1	2.11	0.83
1:E:204:PHE:HE2	1:T:322:VAL:H	1.23	0.83
1:j:423:LEU:HG	1:j:586:LEU:HD11	1.61	0.83
1:J:346:ASP:HA	1:J:351:ARG:HH22	1.44	0.83
1:j:28:HIS:N	1:j:364:MET:SD	2.51	0.82
1:G:312:LEU:HD11	1:N:548:ARG:HH12	1.44	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:331:THR:HA	1:U:558:ARG:HE	1.44	0.82
1:R:548:ARG:HE	1:T:157:THR:HG21	1.42	0.81
1:J:55:LEU:HD23	1:J:74:LYS:HB3	1.62	0.81
1:d:28:HIS:N	1:d:364:MET:SD	2.54	0.81
1:i:28:HIS:N	1:i:364:MET:SD	2.54	0.81
1:G:590:GLU:HG3	1:G:592:GLN:H	1.45	0.81
1:R:169:LYS:HG3	1:R:170:GLN:HG3	1.63	0.81
1:V:359:TYR:HE1	1:V:557:PRO:HB3	1.44	0.80
1:Z:443:MET:HG3	1:Z:569:LEU:HD23	1.63	0.80
1:D:542:ASN:OD1	1:D:551:ARG:NH2	2.13	0.80
1:e:543:MET:SD	1:e:545:ARG:NH2	2.53	0.80
1:g:395:LEU:O	1:j:192:GLN:NE2	2.15	0.80
1:M:433:GLN:OE1	1:M:489:ARG:NE	2.14	0.80
1:L:52:ARG:HA	1:L:322:VAL:HG12	1.62	0.80
1:Q:63:GLU:HB2	1:Q:69:LYS:HE2	1.63	0.80
1:G:241:ARG:HB2	1:G:272:PHE:HB3	1.64	0.80
1:G:554:ARG:NH2	1:H:311:GLN:HE22	1.80	0.80
1:h:394:ASN:HB2	1:h:402:GLN:HE22	1.47	0.80
1:c:429:GLN:NE2	1:c:433:GLN:OE1	2.15	0.79
1:D:337:ILE:HG13	1:D:355:LEU:HD21	1.65	0.79
1:E:202:TYR:O	1:T:323:GLN:NE2	2.16	0.79
1:Y:477:ARG:HH12	1:Z:446:THR:HA	1.47	0.79
1:D:153:LYS:NZ	1:c:547:GLN:OE1	2.12	0.79
1:e:423:LEU:HD11	1:i:423:LEU:HD12	1.65	0.79
1:E:337:ILE:HD11	1:E:350:PRO:HG2	1.65	0.79
1:T:252:MET:HE3	1:T:253:ASN:H	1.48	0.79
1:I:53:ARG:HE	1:I:55:LEU:HD11	1.47	0.79
1:N:464:ARG:HH22	1:N:466:PRO:HA	1.48	0.79
1:Z:331:THR:HA	1:Z:558:ARG:HG3	1.63	0.79
1:G:449:GLN:HA	1:K:476:MET:HE3	1.65	0.79
1:T:147:THR:HG22	1:T:150:ARG:HG2	1.64	0.79
1:A:135:ASN:O	1:P:267:ARG:NH1	2.15	0.78
1:B:483:GLN:HG3	1:C:493:ILE:HG12	1.65	0.78
1:I:365:ARG:NH2	1:L:81:LEU:O	2.16	0.78
1:C:469:HIS:ND1	1:C:496:ASP:OD1	2.15	0.78
1:J:87:LEU:HD23	1:J:88:GLU:H	1.49	0.78
1:T:365:ARG:HH22	1:U:81:LEU:HA	1.47	0.78
1:B:443:MET:HG3	1:B:569:LEU:HD13	1.66	0.78
1:f:513:MET:HB2	1:f:569:LEU:HB2	1.66	0.78
1:P:433:GLN:NE2	1:P:483:GLN:O	2.11	0.77
1:R:247:LYS:HG2	1:R:265:ALA:HB3	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:477:ARG:O	1:B:480:GLN:NE2	2.17	0.77
1:i:536:GLU:OE2	1:i:558:ARG:NH1	2.17	0.77
1:M:55:LEU:HD23	1:M:74:LYS:HB3	1.65	0.77
1:Q:157:THR:HG22	1:W:548:ARG:HE	1.47	0.77
1:A:342:MET:HE2	1:e:309:ILE:HA	1.67	0.77
1:b:192:GLN:NE2	1:d:397:LEU:O	2.18	0.77
1:C:337:ILE:HG13	1:C:355:LEU:HD21	1.67	0.77
1:Z:339:LYS:HD3	1:Z:349:TYR:HB2	1.67	0.77
1:P:160:ASP:OD1	1:P:310:ASN:ND2	2.17	0.77
1:J:420:LEU:H	1:L:583:ARG:HH22	1.31	0.76
1:d:467:LYS:HZ1	1:d:496:ASP:H	1.33	0.76
1:h:464:ARG:HH12	1:h:519:ASN:HD21	1.30	0.76
1:B:310:ASN:HA	1:L:548:ARG:CZ	2.15	0.76
1:K:247:LYS:HE2	1:K:264:ARG:HB2	1.67	0.76
1:M:192:GLN:NE2	1:Q:397:LEU:O	2.18	0.76
1:R:547:GLN:NE2	1:T:153:LYS:O	2.18	0.76
1:A:362:GLN:NE2	1:A:363:GLN:OE1	2.16	0.76
1:P:36:ARG:NH1	1:P:520:GLU:O	2.19	0.76
1:g:36:ARG:HH22	1:g:527:GLN:HE21	1.32	0.76
1:B:53:ARG:NH2	1:B:392:GLU:OE1	2.17	0.76
1:Q:310:ASN:HD22	1:W:548:ARG:HA	1.49	0.76
1:a:158:PHE:H	1:h:60:TRP:HZ2	1.33	0.76
1:R:548:ARG:HB3	1:T:310:ASN:HD22	1.51	0.76
1:G:28:HIS:N	1:G:364:MET:SD	2.58	0.75
1:S:420:LEU:O	1:W:583:ARG:NH1	2.19	0.75
1:Y:391:ILE:HG22	1:Y:392:GLU:HG3	1.66	0.75
1:h:425:SER:O	1:i:489:ARG:NH2	2.20	0.75
1:f:60:TRP:O	1:f:122:LYS:NZ	2.19	0.75
1:h:191:ASP:HB3	1:h:194:ALA:HB2	1.69	0.75
1:S:479:PRO:HA	1:S:482:ILE:HG22	1.69	0.75
1:a:309:ILE:HG12	1:j:340:PRO:HB2	1.66	0.75
1:b:308:ASN:ND2	1:b:313:GLU:OE2	2.19	0.75
1:i:592:GLN:NE2	1:i:597:SER:O	2.19	0.75
1:E:157:THR:HG23	1:E:158:PHE:H	1.50	0.75
1:d:163:ASP:OD1	1:d:164:SER:N	2.19	0.75
1:D:140:ASN:HD22	1:D:143:MET:HG2	1.52	0.75
1:P:53:ARG:HH12	1:P:403:TYR:HB3	1.48	0.75
1:G:169:LYS:NZ	1:G:302:LEU:O	2.19	0.75
1:M:422:ASN:HD21	1:M:428:LYS:HD2	1.51	0.75
1:O:422:ASN:HD22	1:O:428:LYS:HG3	1.50	0.74
1:e:382:TYR:HA	1:f:241:ARG:HH22	1.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:313:GLU:OE2	1:j:554:ARG:NE	2.20	0.74
1:C:352:LEU:HD11	1:C:538:LEU:HD11	1.69	0.74
1:D:541:PHE:O	1:D:551:ARG:NH1	2.19	0.74
1:M:308:ASN:ND2	1:M:313:GLU:OE1	2.20	0.74
1:W:394:ASN:O	1:W:402:GLN:NE2	2.19	0.74
1:Y:235:LEU:HD21	1:Y:242:ILE:HD11	1.68	0.74
1:i:586:LEU:HB3	1:i:588:VAL:HG23	1.69	0.74
1:R:196:TYR:HB3	1:R:207:MET:HB3	1.70	0.74
1:T:36:ARG:NH2	1:T:517:LEU:O	2.20	0.74
1:D:310:ASN:HD21	1:c:548:ARG:HD2	1.52	0.74
1:E:36:ARG:NH1	1:E:517:LEU:O	2.20	0.74
1:H:36:ARG:NH1	1:H:520:GLU:O	2.20	0.74
1:X:55:LEU:HD21	1:X:74:LYS:HD2	1.70	0.74
1:R:105:GLU:OE2	1:R:106:GLN:NE2	2.21	0.74
1:C:366:ASN:HD21	1:D:84:TYR:HA	1.51	0.74
1:J:215:LEU:HD12	1:J:246:VAL:HG21	1.70	0.73
1:J:493:ILE:HD11	1:L:484:ILE:HD13	1.69	0.73
1:P:268:LEU:HD23	1:P:290:LEU:HD22	1.69	0.73
1:U:37:THR:HA	1:U:531:LEU:HB3	1.68	0.73
1:Y:305:ARG:NH2	1:c:331:THR:O	2.21	0.73
1:Y:560:ARG:HH12	1:Z:190:ARG:HH12	1.34	0.73
1:D:323:GLN:HG3	1:D:403:TYR:HE1	1.53	0.73
1:S:241:ARG:NH2	1:W:381:SER:O	2.22	0.73
1:V:165:ARG:HD2	1:X:330:PRO:HG3	1.69	0.73
1:f:273:ASP:OD2	1:f:274:LYS:N	2.21	0.73
1:E:476:MET:HG3	1:E:501:ARG:HD3	1.70	0.73
1:L:483:GLN:NE2	1:L:485:ASN:OD1	2.20	0.73
1:b:309:ILE:O	1:b:311:GLN:NE2	2.22	0.73
1:e:554:ARG:HG3	1:f:311:GLN:HG2	1.68	0.73
1:h:370:THR:HG22	1:h:506:ARG:HH12	1.53	0.73
1:h:479:PRO:HA	1:h:482:ILE:HG22	1.71	0.73
1:G:156:MET:HG3	1:G:157:THR:H	1.54	0.73
1:B:331:THR:H	1:C:305:ARG:HH22	1.33	0.73
1:K:57:TRP:HH2	1:K:60:TRP:HD1	1.35	0.73
1:X:210:LYS:NZ	1:Y:251:GLU:OE2	2.21	0.73
1:E:440:ILE:HG13	1:E:513:MET:HE1	1.71	0.73
1:Z:484:ILE:HG21	1:Z:487:ASP:HB3	1.69	0.73
1:d:457:LEU:HB3	1:d:466:PRO:HG2	1.71	0.73
1:H:479:PRO:HA	1:H:482:ILE:HG22	1.71	0.73
1:I:168:LEU:O	1:I:189:ASN:ND2	2.22	0.73
1:f:319:ASP:OD2	1:f:320:SER:N	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:j:502:ILE:HG22	1:j:504:ASP:H	1.54	0.73
1:D:365:ARG:NH2	1:E:80:GLY:O	2.22	0.72
1:D:583:ARG:HH12	1:E:439:LYS:HA	1.53	0.72
1:R:28:HIS:N	1:R:364:MET:SD	2.62	0.72
1:h:57:TRP:NE1	1:h:319:ASP:OD2	2.21	0.72
1:A:539:VAL:HB	1:A:554:ARG:HB2	1.70	0.72
1:V:420:LEU:HD11	1:V:431:ASP:HB3	1.69	0.72
1:J:560:ARG:HD2	1:K:190:ARG:HH12	1.52	0.72
1:K:238:LEU:O	1:K:274:LYS:NZ	2.22	0.72
1:Y:169:LYS:NZ	1:Y:302:LEU:O	2.22	0.72
1:A:75:ARG:HH22	1:A:86:THR:HG22	1.54	0.72
1:B:271:VAL:HG11	1:B:286:VAL:HG11	1.72	0.72
1:R:376:ALA:HA	1:R:568:MET:HE1	1.70	0.72
1:A:428:LYS:HB2	1:A:583:ARG:HE	1.54	0.72
1:M:217:LEU:HD23	1:M:242:ILE:HD11	1.72	0.72
1:a:586:LEU:HD23	1:d:588:VAL:HG22	1.71	0.72
1:a:119:LYS:NZ	1:a:121:GLY:O	2.23	0.72
1:P:36:ARG:HH12	1:P:521:SER:HA	1.55	0.72
1:M:587:ASP:OD2	1:Q:583:ARG:NH1	2.23	0.71
1:Z:62:GLY:HA2	1:Z:70:GLN:HE22	1.52	0.71
1:b:328:MET:HB3	1:c:165:ARG:HD3	1.72	0.71
1:h:162:LEU:HD12	1:h:254:VAL:HA	1.72	0.71
1:N:394:ASN:O	1:N:402:GLN:NE2	2.23	0.71
1:b:397:LEU:O	1:c:192:GLN:NE2	2.22	0.71
1:j:399:GLY:HA2	1:j:564:PHE:HD1	1.55	0.71
1:D:119:LYS:NZ	1:D:124:THR:OG1	2.21	0.71
1:I:90:ASN:O	1:I:120:GLN:NE2	2.23	0.71
1:J:177:LYS:HB3	1:J:231:LEU:HD22	1.71	0.71
1:V:389:HIS:HB2	1:V:407:PRO:HG2	1.72	0.71
1:Y:250:GLY:HA3	1:Y:261:THR:HG22	1.72	0.71
1:a:397:LEU:O	1:d:192:GLN:NE2	2.24	0.71
1:d:51:ILE:HD11	1:d:404:TYR:HE1	1.53	0.71
1:g:560:ARG:HH22	1:j:165:ARG:HH22	1.39	0.71
1:G:160:ASP:HB3	1:G:306:LEU:HD11	1.71	0.71
1:W:363:GLN:HE22	1:W:531:LEU:HD21	1.55	0.71
1:e:338:VAL:O	1:e:349:TYR:OH	2.06	0.71
1:g:423:LEU:HD23	1:g:424:THR:HG23	1.73	0.71
1:H:484:ILE:HG21	1:H:487:ASP:HB2	1.71	0.71
1:S:81:LEU:O	1:W:365:ARG:NH1	2.24	0.71
1:U:590:GLU:HB3	1:X:593:VAL:HB	1.72	0.71
1:a:198:ALA:O	1:i:200:ARG:NH1	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:169:LYS:HZ1	1:E:303:GLU:HA	1.54	0.71
1:J:153:LYS:HD3	1:L:545:ARG:HH22	1.54	0.71
1:W:97:VAL:HG12	1:W:99:GLN:HE22	1.53	0.71
1:c:308:ASN:ND2	1:c:313:GLU:OE1	2.23	0.71
1:f:332:LEU:HB2	1:f:557:PRO:HG2	1.72	0.71
1:H:422:ASN:HD21	1:H:428:LYS:HG3	1.56	0.71
1:O:308:ASN:HD21	1:O:312:LEU:HD23	1.55	0.71
1:Y:420:LEU:H	1:c:583:ARG:HD2	1.55	0.71
1:b:332:LEU:HB2	1:b:557:PRO:HG2	1.73	0.71
1:f:90:ASN:C	1:f:90:ASN:HD22	1.99	0.71
1:A:57:TRP:HB3	1:A:317:LEU:HB2	1.73	0.71
1:G:477:ARG:HH12	1:H:446:THR:HA	1.56	0.71
1:H:583:ARG:NH1	1:I:587:ASP:OD2	2.22	0.71
1:T:347:LYS:O	1:U:52:ARG:NH2	2.24	0.71
1:d:78:LEU:HD12	1:d:81:LEU:HD13	1.70	0.71
1:f:328:MET:SD	1:g:165:ARG:NH1	2.64	0.71
1:H:89:THR:HG21	1:H:316:LEU:HD21	1.72	0.71
1:I:414:ILE:HD11	1:I:439:LYS:HG2	1.73	0.71
1:J:340:PRO:HB3	1:R:309:ILE:HG21	1.72	0.71
1:f:433:GLN:NE2	1:f:484:ILE:HG12	2.06	0.71
1:M:414:ILE:HD11	1:M:439:LYS:HG2	1.72	0.70
1:Q:157:THR:HG22	1:W:548:ARG:NE	2.04	0.70
1:V:191:ASP:HB3	1:V:194:ALA:HB2	1.72	0.70
1:Y:422:ASN:ND2	1:Y:431:ASP:OD2	2.23	0.70
1:e:90:ASN:HD22	1:e:93:GLU:HG3	1.54	0.70
1:S:89:THR:HG22	1:W:333:PRO:HB2	1.73	0.70
1:T:362:GLN:NE2	1:U:87:LEU:O	2.24	0.70
1:g:332:LEU:HB2	1:g:557:PRO:HG2	1.72	0.70
1:j:424:THR:HG22	1:j:426:ALA:H	1.56	0.70
1:C:77:ILE:HD11	1:C:87:LEU:HD11	1.73	0.70
1:V:230:ALA:O	1:V:233:LYS:NZ	2.25	0.70
1:C:511:ILE:HB	1:C:571:ILE:HB	1.71	0.70
1:Y:105:GLU:OE2	1:Y:106:GLN:NE2	2.24	0.70
1:b:81:LEU:O	1:d:365:ARG:NH2	2.21	0.70
1:b:479:PRO:HA	1:b:482:ILE:HG22	1.73	0.70
1:G:437:VAL:HG12	1:G:489:ARG:HE	1.56	0.70
1:H:217:LEU:HD23	1:H:242:ILE:HD11	1.73	0.70
1:N:106:GLN:NE2	1:N:139:PHE:HB3	2.05	0.70
1:O:337:ILE:HG13	1:O:355:LEU:HD21	1.73	0.70
1:Q:341:ALA:O	1:Q:342:MET:HE2	1.91	0.70
1:S:318:ILE:H	1:W:337:ILE:HD13	1.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:340:PRO:HB3	1:i:309:ILE:HG12	1.72	0.70
1:e:587:ASP:HB2	1:i:583:ARG:HE	1.56	0.70
1:G:153:LYS:HD2	1:N:547:GLN:HG3	1.74	0.70
1:H:479:PRO:HG3	1:H:501:ARG:HD3	1.72	0.70
1:J:81:LEU:HG	1:L:365:ARG:HH22	1.56	0.70
1:L:322:VAL:HG22	1:f:204:PHE:HD2	1.57	0.70
1:J:105:GLU:OE1	1:J:106:GLN:NE2	2.25	0.70
1:A:554:ARG:NH2	1:B:314:MET:SD	2.65	0.69
1:E:323:GLN:NE2	1:P:202:TYR:O	2.25	0.69
1:M:394:ASN:HD21	1:M:402:GLN:HB2	1.57	0.69
1:P:484:ILE:HG21	1:P:487:ASP:HB2	1.74	0.69
1:f:583:ARG:HB2	1:g:419:ASP:HA	1.73	0.69
1:g:337:ILE:HG12	1:g:349:TYR:CZ	2.27	0.69
1:K:424:THR:HG22	1:K:426:ALA:H	1.56	0.69
1:U:511:ILE:HD11	1:U:571:ILE:HD11	1.74	0.69
1:Z:332:LEU:HB2	1:Z:557:PRO:HG2	1.73	0.69
1:Z:479:PRO:HA	1:Z:482:ILE:HG22	1.73	0.69
1:e:584:THR:O	1:f:421:ASN:ND2	2.25	0.69
1:R:476:MET:SD	1:R:501:ARG:NH1	2.65	0.69
1:h:439:LYS:HE2	1:j:581:ALA:HB2	1.73	0.69
1:G:313:GLU:OE1	1:K:554:ARG:NH2	2.25	0.69
1:Y:584:THR:O	1:Z:421:ASN:ND2	2.22	0.69
1:Y:589:ASN:HB2	1:c:587:ASP:HA	1.74	0.69
1:b:320:SER:HB3	1:d:348:THR:HA	1.73	0.69
1:E:506:ARG:O	1:E:510:LYS:NZ	2.23	0.69
1:G:341:ALA:O	1:G:342:MET:HE2	1.92	0.69
1:U:370:THR:HG22	1:U:506:ARG:HH12	1.56	0.69
1:b:317:LEU:HD11	1:d:338:VAL:HG12	1.74	0.69
1:g:339:LYS:HD2	1:g:349:TYR:HD1	1.57	0.69
1:h:587:ASP:H	1:j:583:ARG:HH22	1.39	0.69
1:J:61:THR:HG23	1:J:70:GLN:HE22	1.55	0.69
1:J:233:LYS:NZ	1:J:237:ASP:OD1	2.25	0.69
1:N:395:LEU:O	1:O:192:GLN:NE2	2.25	0.69
1:C:399:GLY:HA3	1:C:564:PHE:HA	1.74	0.69
1:I:502:ILE:HG22	1:I:504:ASP:H	1.56	0.69
1:c:36:ARG:HH22	1:c:518:PRO:HA	1.57	0.69
1:A:212:HIS:NE2	1:P:251:GLU:OE1	2.26	0.69
1:D:322:VAL:H	1:U:204:PHE:HE1	1.41	0.69
1:Q:89:THR:HB	1:Q:316:LEU:HD11	1.73	0.69
1:X:309:ILE:HG21	1:b:340:PRO:HB3	1.74	0.69
1:Z:339:LYS:HD2	1:Z:340:PRO:HD2	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:g:103:ASN:HD22	1:g:144:LEU:HD22	1.57	0.69
1:g:196:TYR:HB3	1:g:207:MET:SD	2.33	0.69
1:L:372:LEU:HD21	1:L:512:VAL:HG11	1.75	0.69
1:M:103:ASN:HD22	1:M:144:LEU:HD11	1.58	0.69
1:M:591:THR:HA	1:N:593:VAL:HG11	1.75	0.69
1:e:479:PRO:HA	1:e:482:ILE:HG22	1.75	0.69
1:h:477:ARG:HH22	1:i:446:THR:HG23	1.56	0.69
1:I:57:TRP:HH2	1:I:60:TRP:HB3	1.58	0.69
1:V:592:GLN:NE2	1:W:594:THR:HA	2.08	0.69
1:c:370:THR:HG22	1:c:506:ARG:HH12	1.58	0.69
1:h:587:ASP:HA	1:i:589:ASN:HB2	1.75	0.69
1:C:448:ASP:OD2	1:C:495:TYR:OH	2.10	0.68
1:D:415:ASP:OD2	1:D:418:ASN:ND2	2.24	0.68
1:O:331:THR:HA	1:O:558:ARG:HG2	1.73	0.68
1:f:86:THR:HG23	1:f:87:LEU:HG	1.75	0.68
1:h:483:GLN:NE2	1:h:484:ILE:O	2.26	0.68
1:N:56:VAL:HG22	1:N:318:ILE:HG12	1.75	0.68
1:a:586:LEU:HG	1:a:588:VAL:HG23	1.75	0.68
1:b:423:LEU:HD13	1:b:586:LEU:HD11	1.74	0.68
1:D:102:GLU:HG2	1:Y:65:LEU:HD11	1.76	0.68
1:Q:61:THR:OG1	1:Q:69:LYS:NZ	2.19	0.68
1:f:472:ILE:HG12	1:f:513:MET:HE1	1.75	0.68
1:C:271:VAL:HG11	1:C:286:VAL:HG11	1.75	0.68
1:K:502:ILE:HD11	1:K:507:MET:HG3	1.75	0.68
1:N:55:LEU:HD13	1:N:74:LYS:HB3	1.74	0.68
1:Q:440:ILE:HD12	1:Q:513:MET:HE1	1.74	0.68
1:A:145:ALA:O	1:A:146:GLN:HG2	1.93	0.68
1:A:198:ALA:HA	1:A:207:MET:HG2	1.76	0.68
1:T:61:THR:HB	1:T:70:GLN:HG2	1.74	0.68
1:U:375:ARG:NH1	1:U:563:ASN:HB3	2.08	0.68
1:b:423:LEU:HG	1:c:423:LEU:HD21	1.74	0.68
1:f:433:GLN:HE22	1:f:483:GLN:C	2.02	0.68
1:C:400:VAL:HG23	1:C:525:PRO:HB3	1.75	0.68
1:J:410:ASN:HB3	1:J:443:MET:HE1	1.75	0.68
1:J:545:ARG:NH1	1:J:552:GLU:OE2	2.25	0.68
1:P:69:LYS:O	1:T:258:ASN:ND2	2.27	0.68
1:R:218:GLY:HA2	1:R:241:ARG:HE	1.58	0.68
1:e:165:ARG:HA	1:i:328:MET:HE1	1.74	0.68
1:j:319:ASP:OD2	1:j:320:SER:N	2.26	0.68
1:E:146:GLN:NE2	1:T:68:GLU:OE1	2.26	0.68
1:N:420:LEU:HD11	1:N:431:ASP:HB3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:36:ARG:NH1	1:b:520:GLU:O	2.27	0.68
1:i:153:LYS:HE3	1:i:312:LEU:HD13	1.76	0.68
1:I:375:ARG:HH11	1:I:563:ASN:HB3	1.58	0.68
1:R:94:LEU:HD21	1:R:306:LEU:HB2	1.76	0.68
1:S:198:ALA:HA	1:S:207:MET:HG3	1.74	0.68
1:d:391:ILE:HG22	1:d:392:GLU:HG3	1.75	0.68
1:E:57:TRP:CD1	1:E:59:GLY:H	2.12	0.68
1:H:146:GLN:HG2	1:H:151:LEU:HD22	1.75	0.68
1:N:511:ILE:HB	1:N:571:ILE:HB	1.74	0.68
1:P:53:ARG:HD2	1:P:55:LEU:HD21	1.76	0.68
1:D:545:ARG:HH12	1:E:153:LYS:HE3	1.58	0.67
1:I:341:ALA:HB2	1:I:551:ARG:HG3	1.74	0.67
1:Z:246:VAL:HG22	1:Z:266:LEU:HD13	1.76	0.67
1:G:171:LEU:HD23	1:G:188:VAL:HG21	1.75	0.67
1:M:313:GLU:O	1:Q:554:ARG:NH1	2.21	0.67
1:N:57:TRP:NE1	1:N:319:ASP:OD2	2.27	0.67
1:P:554:ARG:NH1	1:Q:311:GLN:OE1	2.27	0.67
1:R:351:ARG:HE	1:R:352:LEU:HD12	1.59	0.67
1:U:330:PRO:HG3	1:X:165:ARG:HD3	1.76	0.67
1:Y:477:ARG:NH1	1:Z:446:THR:HA	2.09	0.67
1:Z:543:MET:HE1	1:Z:545:ARG:HE	1.59	0.67
1:G:250:GLY:HA3	1:G:261:THR:HG22	1.76	0.67
1:I:592:GLN:NE2	1:L:593:VAL:O	2.26	0.67
1:J:200:ARG:HG3	1:e:324:LYS:HZ3	1.60	0.67
1:J:202:TYR:HB3	1:J:206:LEU:HD11	1.75	0.67
1:J:433:GLN:HE21	1:J:484:ILE:HA	1.59	0.67
1:L:414:ILE:HD11	1:L:439:LYS:HG2	1.75	0.67
1:V:583:ARG:NH2	1:W:420:LEU:H	1.92	0.67
1:f:163:ASP:OD1	1:f:164:SER:N	2.27	0.67
1:h:331:THR:HA	1:h:558:ARG:HG2	1.76	0.67
1:G:62:GLY:O	1:G:70:GLN:NE2	2.27	0.67
1:L:211:PHE:HB3	1:L:248:VAL:HB	1.75	0.67
1:V:410:ASN:ND2	1:V:443:MET:SD	2.67	0.67
1:Y:548:ARG:NH2	1:i:159:THR:OG1	2.28	0.67
1:e:382:TYR:O	1:f:241:ARG:NH1	2.27	0.67
1:h:176:THR:OG1	1:h:294:THR:OG1	2.12	0.67
1:J:212:HIS:CD2	1:J:247:LYS:HG3	2.29	0.67
1:M:28:HIS:N	1:M:364:MET:SD	2.67	0.67
1:P:511:ILE:HB	1:P:571:ILE:HB	1.77	0.67
1:i:473:GLY:HA2	1:i:500:ALA:HB3	1.75	0.67
1:C:163:ASP:OD1	1:C:164:SER:N	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:331:THR:HA	1:I:558:ARG:HG3	1.77	0.67
1:N:106:GLN:HE22	1:N:139:PHE:HB3	1.59	0.67
1:N:363:GLN:HE22	1:N:531:LEU:HD21	1.59	0.67
1:Y:479:PRO:HA	1:Y:482:ILE:HG12	1.77	0.67
1:b:433:GLN:HG3	1:b:484:ILE:HG13	1.76	0.67
1:G:310:ASN:ND2	1:N:549:ILE:H	1.93	0.67
1:O:322:VAL:O	1:O:323:GLN:NE2	2.27	0.67
1:f:468:PRO:HG2	1:f:495:TYR:HE1	1.60	0.67
1:B:448:ASP:OD2	1:B:495:TYR:OH	2.12	0.67
1:H:123:ASP:OD2	1:H:149:SER:N	2.26	0.67
1:J:583:ARG:HB2	1:K:419:ASP:HA	1.77	0.67
1:O:347:LYS:HZ2	1:R:322:VAL:HG22	1.60	0.67
1:a:487:ASP:OD2	1:a:489:ARG:NH2	2.28	0.67
1:B:69:LYS:HZ2	1:e:140:ASN:N	1.92	0.67
1:C:196:TYR:HB3	1:C:207:MET:HG3	1.77	0.67
1:K:511:ILE:HB	1:K:571:ILE:HB	1.76	0.67
1:T:37:THR:HA	1:T:531:LEU:HB3	1.76	0.67
1:g:491:VAL:HG21	1:g:497:TYR:HB3	1.75	0.67
1:D:402:GLN:HG3	1:D:566:PRO:HG3	1.74	0.67
1:R:380:LYS:HG2	1:R:409:TYR:HE2	1.60	0.67
1:W:196:TYR:CE2	1:W:209:LEU:HB2	2.29	0.67
1:b:81:LEU:HD12	1:d:365:ARG:NH2	2.10	0.67
1:f:114:PRO:O	1:f:116:GLN:NE2	2.28	0.67
1:D:448:ASP:OD2	1:D:495:TYR:OH	2.13	0.66
1:G:277:LYS:HE3	1:K:390:PRO:HG2	1.77	0.66
1:U:543:MET:SD	1:U:545:ARG:NH2	2.68	0.66
1:d:375:ARG:HG3	1:d:568:MET:HE1	1.76	0.66
1:D:156:MET:HE1	1:D:159:THR:H	1.60	0.66
1:D:481:TYR:OH	1:E:442:GLU:OE1	2.08	0.66
1:N:544:ILE:HD12	1:N:549:ILE:HG13	1.78	0.66
1:O:479:PRO:HA	1:O:482:ILE:HG22	1.77	0.66
1:T:502:ILE:HG22	1:T:504:ASP:H	1.60	0.66
1:T:549:ILE:H	1:Y:310:ASN:ND2	1.93	0.66
1:a:583:ARG:HB2	1:d:419:ASP:HA	1.77	0.66
1:Y:428:LYS:NZ	1:Y:580:ILE:O	2.28	0.66
1:g:520:GLU:OE2	1:g:527:GLN:NE2	2.28	0.66
1:i:219:GLU:HG2	1:i:241:ARG:HH21	1.59	0.66
1:j:241:ARG:HH22	1:j:272:PHE:HD2	1.44	0.66
1:E:66:SER:H	1:P:143:MET:HE1	1.60	0.66
1:O:443:MET:HA	1:O:446:THR:HG22	1.77	0.66
1:C:138:GLY:HA2	1:C:260:ASP:HB3	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:303:GLU:OE2	1:H:305:ARG:NH2	2.29	0.66
1:Q:424:THR:HG22	1:Q:426:ALA:H	1.60	0.66
1:R:268:LEU:HD22	1:R:293:LEU:HD23	1.77	0.66
1:U:172:LEU:HD11	1:U:183:LEU:HB3	1.78	0.66
1:e:397:LEU:O	1:f:192:GLN:NE2	2.29	0.66
1:i:308:ASN:ND2	1:i:313:GLU:OE1	2.27	0.66
1:j:36:ARG:NH1	1:j:520:GLU:O	2.29	0.66
1:J:200:ARG:NE	1:e:324:LYS:O	2.29	0.66
1:Y:53:ARG:NH2	1:Y:392:GLU:OE2	2.29	0.66
1:b:380:LYS:HG3	1:b:409:TYR:HE2	1.61	0.66
1:d:49:LEU:HD11	1:d:400:VAL:HG11	1.77	0.66
1:D:359:TYR:HE1	1:D:557:PRO:HB3	1.61	0.66
1:J:330:PRO:HD3	1:K:165:ARG:HD3	1.78	0.66
1:L:322:VAL:HG22	1:f:204:PHE:CD2	2.31	0.66
1:T:365:ARG:HH22	1:U:81:LEU:HD13	1.61	0.66
1:W:546:ASN:O	1:W:548:ARG:NH1	2.29	0.66
1:f:443:MET:HG3	1:f:569:LEU:HD13	1.75	0.66
1:E:204:PHE:CD1	1:E:205:ARG:HG2	2.31	0.66
1:N:61:THR:O	1:N:66:SER:OG	2.14	0.66
1:V:420:LEU:O	1:X:583:ARG:NH2	2.28	0.66
1:a:565:LEU:HD12	1:a:566:PRO:HD2	1.77	0.66
1:d:186:LEU:HG	1:d:215:LEU:HD21	1.77	0.66
1:A:365:ARG:NH1	1:B:81:LEU:HA	2.10	0.66
1:B:363:GLN:NE2	1:B:559:TYR:OH	2.29	0.66
1:c:99:GLN:OE1	1:c:103:ASN:ND2	2.27	0.66
1:e:83:ASP:OD2	1:e:84:TYR:N	2.27	0.66
1:e:84:TYR:HB2	1:i:506:ARG:HH12	1.61	0.66
1:i:247:LYS:HG3	1:i:265:ALA:HB3	1.78	0.66
1:j:332:LEU:HB2	1:j:557:PRO:HG2	1.76	0.66
1:B:331:THR:O	1:C:305:ARG:NH2	2.29	0.65
1:L:336:VAL:HB	1:L:554:ARG:HD3	1.77	0.65
1:V:449:GLN:OE1	1:X:508:LYS:NZ	2.29	0.65
1:W:365:ARG:NH2	1:W:503:SER:OG	2.30	0.65
1:h:196:TYR:CE1	1:h:209:LEU:HB2	2.31	0.65
1:i:502:ILE:HG22	1:i:504:ASP:H	1.61	0.65
1:N:484:ILE:HG21	1:N:487:ASP:HB2	1.78	0.65
1:U:331:THR:HA	1:U:558:ARG:NE	2.10	0.65
1:Y:583:ARG:NE	1:Z:421:ASN:OD1	2.24	0.65
1:P:544:ILE:HD13	1:W:544:ILE:HG21	1.78	0.65
1:a:308:ASN:HD22	1:a:312:LEU:H	1.44	0.65
1:b:83:ASP:OD2	1:b:84:TYR:N	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:547:GLN:O	1:D:548:ARG:NE	2.28	0.65
1:N:422:ASN:ND2	1:N:584:THR:O	2.29	0.65
1:S:165:ARG:HG2	1:W:330:PRO:HB3	1.78	0.65
1:T:464:ARG:O	1:T:466:PRO:HD3	1.97	0.65
1:V:57:TRP:NE1	1:V:319:ASP:OD1	2.29	0.65
1:H:590:GLU:HB3	1:I:593:VAL:HG23	1.78	0.65
1:Q:327:PHE:HE2	1:Q:564:PHE:HE1	1.45	0.65
1:X:273:ASP:HB3	1:X:279:ILE:HD11	1.79	0.65
1:a:212:HIS:CE1	1:a:247:LYS:HG2	2.31	0.65
1:U:30:PHE:CD1	1:U:502:ILE:HD11	2.32	0.65
1:U:433:GLN:HE22	1:U:484:ILE:HG12	1.62	0.65
1:U:477:ARG:HB2	1:X:449:GLN:HG3	1.77	0.65
1:W:339:LYS:HE3	1:W:349:TYR:CD2	2.30	0.65
1:a:163:ASP:OD1	1:a:164:SER:N	2.29	0.65
1:a:380:LYS:HE3	1:a:409:TYR:HE2	1.62	0.65
1:i:73:SER:O	1:i:75:ARG:NH1	2.30	0.65
1:i:395:LEU:HD13	1:i:402:GLN:HG3	1.77	0.65
1:A:325:GLN:NE2	1:B:193:TYR:OH	2.29	0.65
1:B:437:VAL:HG11	1:B:484:ILE:HD11	1.78	0.65
1:C:414:ILE:HD11	1:C:439:LYS:HG2	1.78	0.65
1:M:163:ASP:OD1	1:M:164:SER:N	2.30	0.65
1:M:212:HIS:CE1	1:M:247:LYS:HE3	2.32	0.65
1:S:192:GLN:NE2	1:W:397:LEU:O	2.30	0.65
1:J:189:ASN:ND2	1:J:303:GLU:OE2	2.30	0.65
1:J:513:MET:HB2	1:J:569:LEU:HB2	1.78	0.65
1:K:413:THR:HG22	1:K:572:ASN:HB2	1.79	0.65
1:L:142:LEU:HD22	1:L:156:MET:HE2	1.79	0.65
1:L:199:THR:OG1	1:L:201:GLU:OE1	2.13	0.65
1:L:578:GLU:HA	1:L:581:ALA:HB3	1.78	0.65
1:M:320:SER:HB3	1:Q:348:THR:HA	1.79	0.65
1:N:235:LEU:HG	1:N:242:ILE:HD11	1.79	0.65
1:O:308:ASN:ND2	1:O:312:LEU:HD23	2.12	0.65
1:Y:419:ASP:HA	1:c:583:ARG:HD2	1.78	0.65
1:a:68:GLU:OE1	1:a:70:GLN:N	2.30	0.65
1:D:262:SER:OG	1:Z:264:ARG:NH1	2.28	0.65
1:J:203:ASN:OD1	1:J:204:PHE:N	2.27	0.65
1:L:369:VAL:HG12	1:L:506:ARG:HD2	1.79	0.65
1:S:583:ARG:NH2	1:S:584:THR:O	2.29	0.65
1:T:105:GLU:OE2	1:T:106:GLN:NE2	2.30	0.65
1:Y:113:LEU:HD12	1:Y:114:PRO:HD2	1.78	0.65
1:e:586:LEU:HD23	1:i:586:LEU:HD11	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:397:LEU:O	1:K:192:GLN:NE2	2.30	0.65
1:M:389:HIS:CD2	1:N:241:ARG:HH12	2.15	0.65
1:O:36:ARG:NH1	1:O:520:GLU:O	2.30	0.65
1:a:247:LYS:HZ2	1:a:264:ARG:HB3	1.61	0.65
1:b:235:LEU:HD13	1:b:242:ILE:HD11	1.79	0.65
1:b:365:ARG:NH2	1:b:503:SER:OG	2.31	0.65
1:b:391:ILE:HG22	1:b:392:GLU:OE1	1.97	0.65
1:e:593:VAL:HB	1:i:590:GLU:O	1.97	0.65
1:h:375:ARG:NH1	1:h:563:ASN:HB3	2.12	0.65
1:I:346:ASP:O	1:L:52:ARG:NH2	2.29	0.64
1:N:589:ASN:ND2	1:O:591:THR:OG1	2.29	0.64
1:e:78:LEU:HA	1:e:81:LEU:HD23	1.79	0.64
1:J:586:LEU:HB3	1:J:588:VAL:HG13	1.77	0.64
1:f:183:LEU:O	1:f:223:THR:OG1	2.15	0.64
1:A:399:GLY:H	1:B:192:GLN:NE2	1.96	0.64
1:B:139:PHE:HE2	1:B:141:LEU:HB2	1.62	0.64
1:M:247:LYS:HG3	1:M:264:ARG:HB3	1.79	0.64
1:R:48:GLN:HE21	1:R:324:LYS:HB2	1.63	0.64
1:E:429:GLN:NE2	1:E:480:GLN:O	2.31	0.64
1:K:339:LYS:HD3	1:K:344:GLU:HG3	1.79	0.64
1:R:223:THR:HG23	1:R:226:GLY:H	1.62	0.64
1:S:122:LYS:HA	1:S:122:LYS:HE3	1.79	0.64
1:Y:55:LEU:HD23	1:Y:74:LYS:HB3	1.78	0.64
1:Z:69:LYS:O	1:i:258:ASN:ND2	2.30	0.64
1:i:483:GLN:NE2	1:i:484:ILE:O	2.30	0.64
1:B:504:ASP:OD2	1:B:505:LEU:N	2.30	0.64
1:C:339:LYS:NZ	1:C:350:PRO:O	2.28	0.64
1:O:163:ASP:HA	1:O:307:THR:HG23	1.78	0.64
1:a:114:PRO:O	1:a:116:GLN:NE2	2.31	0.64
1:c:522:GLU:O	1:c:527:GLN:NE2	2.29	0.64
1:N:212:HIS:HE1	1:N:264:ARG:HH22	1.45	0.64
1:e:212:HIS:HD2	1:e:247:LYS:HD2	1.63	0.64
1:A:199:THR:HB	1:A:208:GLN:HE22	1.61	0.64
1:G:57:TRP:CD1	1:G:74:LYS:HZ1	2.15	0.64
1:H:203:ASN:OD1	1:H:204:PHE:N	2.31	0.64
1:K:60:TRP:CD2	1:R:158:PHE:HB3	2.33	0.64
1:P:113:LEU:HD21	1:P:116:GLN:HE22	1.63	0.64
1:U:397:LEU:O	1:X:192:GLN:NE2	2.27	0.64
1:c:433:GLN:NE2	1:c:483:GLN:H	1.96	0.64
1:g:390:PRO:O	1:g:393:SER:OG	2.12	0.64
1:G:480:GLN:HG3	1:H:445:TYR:CE2	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:256:ASN:ND2	1:N:258:ASN:OD1	2.31	0.64
1:N:395:LEU:HA	1:N:402:GLN:HE22	1.62	0.64
1:X:36:ARG:NH1	1:X:527:GLN:OE1	2.31	0.64
1:a:308:ASN:HD21	1:j:548:ARG:HH12	1.44	0.64
1:e:52:ARG:HA	1:e:322:VAL:HG12	1.80	0.64
1:e:204:PHE:HD2	1:e:205:ARG:HD3	1.62	0.64
1:j:215:LEU:HD12	1:j:246:VAL:HG21	1.80	0.64
1:E:339:LYS:HD2	1:E:340:PRO:HD2	1.80	0.64
1:G:212:HIS:HE2	1:G:247:LYS:HE3	1.63	0.64
1:L:171:LEU:HD12	1:L:188:VAL:HG11	1.79	0.64
1:R:380:LYS:HG2	1:R:409:TYR:CE2	2.33	0.64
1:f:36:ARG:NH1	1:f:36:ARG:HB2	2.13	0.64
1:D:428:LYS:HD2	1:D:583:ARG:HG2	1.78	0.64
1:O:375:ARG:NH1	1:O:398:GLU:HB2	2.12	0.64
1:G:484:ILE:HG21	1:G:487:ASP:HB2	1.80	0.63
1:W:123:ASP:OD2	1:W:149:SER:N	2.29	0.63
1:D:339:LYS:HD2	1:D:340:PRO:HD2	1.80	0.63
1:M:583:ARG:NH1	1:N:587:ASP:OD2	2.31	0.63
1:U:153:LYS:NZ	1:U:313:GLU:OE2	2.32	0.63
1:A:445:TYR:CD2	1:E:480:GLN:HB3	2.33	0.63
1:B:331:THR:HB	1:C:305:ARG:NH1	2.05	0.63
1:D:339:LYS:HE2	1:D:349:TYR:HB2	1.78	0.63
1:J:46:GLY:HA3	1:J:328:MET:HA	1.80	0.63
1:M:90:ASN:O	1:M:120:GLN:NE2	2.31	0.63
1:f:545:ARG:HD3	1:g:312:LEU:HD22	1.80	0.63
1:j:122:LYS:HA	1:j:122:LYS:HE3	1.80	0.63
1:E:429:GLN:HG2	1:E:481:TYR:HE1	1.63	0.63
1:Q:36:ARG:NH2	1:Q:517:LEU:O	2.31	0.63
1:T:583:ARG:NE	1:U:420:LEU:H	1.96	0.63
1:g:399:GLY:HA3	1:g:564:PHE:HA	1.80	0.63
1:h:429:GLN:OE1	1:i:489:ARG:NH1	2.31	0.63
1:A:448:ASP:OD2	1:A:495:TYR:OH	2.11	0.63
1:G:204:PHE:CE2	1:O:324:LYS:HG2	2.33	0.63
1:H:247:LYS:HB2	1:H:265:ALA:HB3	1.80	0.63
1:J:590:GLU:O	1:K:593:VAL:HB	1.97	0.63
1:Y:87:LEU:O	1:Y:88:GLU:HG3	1.98	0.63
1:b:68:GLU:O	1:b:69:LYS:HD3	1.97	0.63
1:C:351:ARG:HG3	1:C:352:LEU:H	1.62	0.63
1:D:542:ASN:HA	1:D:551:ARG:HH22	1.63	0.63
1:E:241:ARG:NH1	1:E:273:ASP:O	2.31	0.63
1:J:327:PHE:HB3	1:J:562:PHE:CE2	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:424:THR:HG22	1:V:426:ALA:H	1.63	0.63
1:j:337:ILE:HG12	1:j:349:TYR:HE1	1.64	0.63
1:B:565:LEU:HG	1:B:567:ILE:HG22	1.80	0.63
1:H:347:LYS:HD2	1:I:52:ARG:HH12	1.63	0.63
1:J:375:ARG:HH12	1:J:379:LEU:HG	1.64	0.63
1:N:469:HIS:CD2	1:N:496:ASP:HB2	2.34	0.63
1:S:431:ASP:HA	1:W:426:ALA:HB2	1.80	0.63
1:c:89:THR:HB	1:c:316:LEU:HD21	1.80	0.63
1:g:290:LEU:HD22	1:g:293:LEU:HD11	1.78	0.63
1:j:196:TYR:HB3	1:j:207:MET:HG3	1.80	0.63
1:G:429:GLN:OE1	1:H:489:ARG:NH2	2.31	0.63
1:L:547:GLN:HA	1:L:547:GLN:HE21	1.62	0.63
1:M:165:ARG:HD2	1:Q:330:PRO:HB3	1.79	0.63
1:M:552:GLU:OE1	1:M:554:ARG:NH2	2.32	0.63
1:R:408:TYR:OH	1:R:410:ASN:ND2	2.32	0.63
1:Y:94:LEU:HD21	1:Y:306:LEU:HB2	1.80	0.63
1:g:389:HIS:HB2	1:g:407:PRO:HG2	1.79	0.63
1:D:203:ASN:HB3	1:D:206:LEU:HD23	1.81	0.63
1:H:171:LEU:HD12	1:H:188:VAL:HG11	1.81	0.63
1:J:51:ILE:HD13	1:J:403:TYR:HD2	1.63	0.63
1:J:163:ASP:OD1	1:J:164:SER:N	2.31	0.63
1:K:93:GLU:OE2	1:K:305:ARG:NH1	2.32	0.63
1:K:433:GLN:NE2	1:K:483:GLN:O	2.24	0.63
1:N:425:SER:N	1:O:431:ASP:OD1	2.32	0.63
1:N:546:ASN:O	1:N:548:ARG:NE	2.32	0.63
1:Q:422:ASN:ND2	1:Q:584:THR:O	2.32	0.63
1:R:83:ASP:OD1	1:R:84:TYR:N	2.31	0.63
1:T:422:ASN:ND2	1:T:431:ASP:OD1	2.32	0.63
1:W:414:ILE:HD11	1:W:435:LEU:HD11	1.80	0.63
1:A:80:GLY:HA2	1:A:86:THR:HG21	1.81	0.62
1:D:388:PRO:HG3	1:D:450:LEU:HD12	1.80	0.62
1:K:55:LEU:HD23	1:K:74:LYS:HB3	1.79	0.62
1:M:128:ASN:OD1	1:M:129:PHE:N	2.32	0.62
1:U:440:ILE:HD12	1:U:513:MET:HE1	1.81	0.62
1:Z:148:PRO:HA	1:Z:151:LEU:HD23	1.81	0.62
1:e:476:MET:O	1:e:477:ARG:HB2	1.99	0.62
1:B:36:ARG:NH2	1:B:517:LEU:O	2.31	0.62
1:N:426:ALA:HB2	1:O:431:ASP:HA	1.80	0.62
1:S:554:ARG:NH1	1:T:313:GLU:O	2.22	0.62
1:B:67:GLY:HA2	1:e:105:GLU:HG2	1.80	0.62
1:G:165:ARG:NH2	1:K:328:MET:O	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:424:THR:HG22	1:L:423:LEU:HD23	1.81	0.62
1:J:437:VAL:HA	1:J:440:ILE:HG22	1.81	0.62
1:O:536:GLU:HG3	1:O:557:PRO:HA	1.80	0.62
1:S:235:LEU:HB2	1:S:289:ALA:HB1	1.82	0.62
1:U:483:GLN:NE2	1:U:485:ASN:OD1	2.32	0.62
1:U:484:ILE:HG21	1:U:487:ASP:HB2	1.80	0.62
1:Z:565:LEU:HD12	1:Z:566:PRO:HD2	1.79	0.62
1:e:53:ARG:HH12	1:e:403:TYR:HB3	1.65	0.62
1:g:472:ILE:HG13	1:g:513:MET:HE1	1.80	0.62
1:E:341:ALA:HA	1:E:551:ARG:HD2	1.79	0.62
1:K:205:ARG:HB3	1:K:254:VAL:HG22	1.81	0.62
1:M:114:PRO:O	1:M:116:GLN:NE2	2.31	0.62
1:N:239:GLY:HA3	1:N:274:LYS:NZ	2.15	0.62
1:N:397:LEU:O	1:O:192:GLN:NE2	2.33	0.62
1:O:281:LEU:O	1:O:287:SER:OG	2.16	0.62
1:Z:536:GLU:OE2	1:Z:558:ARG:NH2	2.31	0.62
1:a:433:GLN:NE2	1:a:483:GLN:O	2.32	0.62
1:e:483:GLN:NE2	1:e:484:ILE:O	2.32	0.62
1:i:128:ASN:OD1	1:i:129:PHE:N	2.32	0.62
1:j:342:MET:SD	1:j:343:VAL:HG23	2.39	0.62
1:A:305:ARG:HH12	1:E:333:PRO:HD3	1.64	0.62
1:C:163:ASP:OD2	1:C:305:ARG:NH2	2.33	0.62
1:E:73:SER:OG	1:E:75:ARG:NH1	2.33	0.62
1:E:204:PHE:HD1	1:E:205:ARG:HG2	1.65	0.62
1:O:524:HIS:CD2	1:O:525:PRO:HD2	2.34	0.62
1:W:337:ILE:HD12	1:W:338:VAL:H	1.64	0.62
1:W:578:GLU:HA	1:W:581:ALA:HB3	1.81	0.62
1:a:414:ILE:HD11	1:a:439:LYS:HE3	1.80	0.62
1:b:365:ARG:NH2	1:c:81:LEU:O	2.32	0.62
1:B:69:LYS:HZ2	1:e:140:ASN:H	1.46	0.62
1:C:443:MET:HE3	1:C:569:LEU:HD23	1.80	0.62
1:D:156:MET:SD	1:D:158:PHE:N	2.70	0.62
1:D:475:ASP:OD2	1:D:509:ASP:N	2.31	0.62
1:L:479:PRO:HA	1:L:482:ILE:HG22	1.80	0.62
1:L:543:MET:HE3	1:L:545:ARG:HB2	1.81	0.62
1:Z:69:LYS:HE2	1:i:258:ASN:HB3	1.81	0.62
1:b:448:ASP:OD1	1:b:495:TYR:OH	2.17	0.62
1:c:339:LYS:HE2	1:c:349:TYR:HB2	1.80	0.62
1:d:70:GLN:HG3	1:d:71:GLU:H	1.64	0.62
1:g:48:GLN:NE2	1:g:325:GLN:O	2.33	0.62
1:G:56:VAL:HG12	1:G:318:ILE:HG13	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:177:LYS:HG2	1:R:293:LEU:HA	1.82	0.62
1:S:397:LEU:O	1:T:192:GLN:NE2	2.32	0.62
1:Z:359:TYR:CE1	1:Z:557:PRO:HB3	2.29	0.62
1:c:172:LEU:HD11	1:c:183:LEU:HB2	1.80	0.62
1:E:388:PRO:HB2	1:E:406:ARG:HH21	1.65	0.62
1:H:115:ALA:HB1	1:H:126:ASP:HB3	1.82	0.62
1:I:330:PRO:HB3	1:L:165:ARG:HB3	1.82	0.62
1:I:393:SER:O	1:I:394:ASN:ND2	2.33	0.62
1:K:324:LYS:HE3	1:R:201:GLU:H	1.65	0.62
1:W:375:ARG:NH1	1:W:379:LEU:HD21	2.14	0.62
1:h:580:ILE:HG21	1:i:442:GLU:HG3	1.80	0.62
1:A:320:SER:HB2	1:E:350:PRO:HB3	1.81	0.62
1:G:190:ARG:NH2	1:K:563:ASN:OD1	2.31	0.62
1:a:122:LYS:HA	1:a:122:LYS:HE3	1.80	0.62
1:h:337:ILE:HG12	1:i:318:ILE:HB	1.81	0.62
1:D:55:LEU:HD22	1:D:74:LYS:HD3	1.81	0.62
1:G:33:LEU:HD21	1:G:471:ALA:HB1	1.82	0.62
1:K:583:ARG:HE	1:K:585:ALA:HB2	1.65	0.62
1:M:336:VAL:HG12	1:M:554:ARG:HD3	1.82	0.62
1:Q:196:TYR:HB3	1:Q:207:MET:HB3	1.82	0.62
1:X:359:TYR:HE1	1:X:557:PRO:HB3	1.64	0.62
1:a:119:LYS:HZ3	1:a:122:LYS:HA	1.64	0.62
1:a:429:GLN:OE1	1:d:489:ARG:NE	2.32	0.62
1:g:592:GLN:HE21	1:g:597:SER:HB3	1.64	0.62
1:C:219:GLU:HG2	1:C:236:PHE:HB3	1.82	0.61
1:I:351:ARG:H	1:I:351:ARG:HD2	1.65	0.61
1:W:42:PRO:HA	1:W:534:ILE:HD11	1.82	0.61
1:b:345:ASP:OD2	1:b:348:THR:OG1	2.18	0.61
1:c:242:ILE:HD11	1:c:268:LEU:HD22	1.82	0.61
1:e:212:HIS:CD2	1:e:247:LYS:HD2	2.35	0.61
1:B:380:LYS:HD3	1:B:409:TYR:HE1	1.66	0.61
1:D:58:GLU:HG2	1:D:75:ARG:NH1	2.15	0.61
1:U:337:ILE:HD11	1:U:553:ILE:HD13	1.82	0.61
1:d:153:LYS:HG3	1:d:312:LEU:HD11	1.81	0.61
1:e:474:THR:HG22	1:e:511:ILE:HG12	1.82	0.61
1:j:196:TYR:CE1	1:j:209:LEU:HB2	2.36	0.61
1:S:163:ASP:OD1	1:S:164:SER:N	2.33	0.61
1:W:113:LEU:HD12	1:W:114:PRO:HD2	1.83	0.61
1:Y:313:GLU:O	1:c:554:ARG:NH2	2.27	0.61
1:f:75:ARG:HH22	1:f:87:LEU:HD23	1.66	0.61
1:B:116:GLN:NE2	1:B:117:THR:O	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:75:ARG:NH2	1:D:86:THR:O	2.30	0.61
1:I:212:HIS:CE1	1:I:247:LYS:HG3	2.35	0.61
1:N:233:LYS:HA	1:N:236:PHE:HD2	1.66	0.61
1:N:479:PRO:HA	1:N:482:ILE:HG22	1.82	0.61
1:O:395:LEU:O	1:R:192:GLN:NE2	2.33	0.61
1:R:339:LYS:HD3	1:R:349:TYR:CZ	2.36	0.61
1:X:399:GLY:O	1:X:402:GLN:NE2	2.27	0.61
1:a:200:ARG:HA	1:h:324:LYS:HZ2	1.65	0.61
1:a:247:LYS:NZ	1:a:264:ARG:HB3	2.15	0.61
1:h:593:VAL:HG23	1:j:590:GLU:O	2.01	0.61
1:A:99:GLN:NE2	1:A:102:GLU:OE1	2.32	0.61
1:N:381:SER:O	1:O:241:ARG:NH1	2.34	0.61
1:R:548:ARG:NH2	1:T:157:THR:OG1	2.33	0.61
1:T:40:VAL:HB	1:T:534:ILE:HG12	1.80	0.61
1:A:207:MET:HE1	1:A:254:VAL:HG13	1.82	0.61
1:C:483:GLN:HB2	1:D:493:ILE:HD13	1.82	0.61
1:C:544:ILE:HG22	1:c:544:ILE:HG21	1.82	0.61
1:E:487:ASP:OD1	1:E:489:ARG:N	2.22	0.61
1:Z:383:LEU:HD11	1:Z:407:PRO:HB2	1.82	0.61
1:g:336:VAL:HB	1:j:315:GLY:HA3	1.81	0.61
1:D:253:ASN:ND2	1:D:256:ASN:OD1	2.34	0.61
1:E:142:LEU:HD11	1:E:156:MET:HG3	1.82	0.61
1:M:332:LEU:HB2	1:M:557:PRO:HG2	1.81	0.61
1:Q:310:ASN:ND2	1:W:548:ARG:HA	2.15	0.61
1:S:203:ASN:OD1	1:S:204:PHE:N	2.34	0.61
1:U:202:TYR:HB2	1:U:206:LEU:HD12	1.83	0.61
1:X:28:HIS:CE1	1:X:30:PHE:HB3	2.35	0.61
1:f:230:ALA:HA	1:f:233:LYS:NZ	2.15	0.61
1:g:560:ARG:NH1	1:j:165:ARG:HH12	1.99	0.61
1:B:99:GLN:NE2	1:J:65:LEU:HD11	2.16	0.61
1:G:433:GLN:HB3	1:G:484:ILE:HG12	1.82	0.61
1:J:310:ASN:HD21	1:i:548:ARG:HA	1.66	0.61
1:O:447:ALA:HB2	1:O:569:LEU:HD11	1.83	0.61
1:U:575:ASN:HD22	1:U:578:GLU:CD	2.08	0.61
1:V:321:ASP:OD1	1:V:323:GLN:NE2	2.34	0.61
1:e:433:GLN:NE2	1:e:484:ILE:HA	2.15	0.61
1:e:583:ARG:HD3	1:f:419:ASP:HA	1.82	0.61
1:A:548:ARG:HD2	1:e:157:THR:HG21	1.83	0.61
1:K:249:ASP:H	1:K:264:ARG:HH12	1.48	0.61
1:T:162:LEU:HB2	1:T:254:VAL:HG23	1.83	0.61
1:a:383:LEU:HD21	1:a:407:PRO:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:451:THR:HG21	1:B:567:ILE:HD12	1.82	0.61
1:R:479:PRO:HG2	1:R:501:ARG:HG2	1.83	0.61
1:S:241:ARG:NH1	1:W:382:TYR:O	2.34	0.61
1:T:433:GLN:NE2	1:T:487:ASP:OD1	2.34	0.61
1:a:423:LEU:HG	1:a:424:THR:HG23	1.81	0.61
1:B:417:LEU:HB3	1:B:575:ASN:HD21	1.66	0.60
1:C:416:VAL:HG13	1:C:420:LEU:HD12	1.80	0.60
1:D:340:PRO:HB3	1:P:309:ILE:HG21	1.82	0.60
1:G:157:THR:OG1	1:G:160:ASP:HB2	2.01	0.60
1:I:241:ARG:HH21	1:I:272:PHE:HD2	1.48	0.60
1:Z:397:LEU:O	1:a:192:GLN:NE2	2.34	0.60
1:f:389:HIS:CE1	1:g:241:ARG:HH22	2.19	0.60
1:h:59:GLY:HA3	1:h:122:LYS:HZ3	1.66	0.60
1:j:196:TYR:HE1	1:j:209:LEU:HB2	1.66	0.60
1:C:268:LEU:HD11	1:C:290:LEU:HD22	1.82	0.60
1:D:437:VAL:HG21	1:D:484:ILE:HG23	1.82	0.60
1:N:332:LEU:HB2	1:N:557:PRO:HG2	1.83	0.60
1:O:504:ASP:OD2	1:R:84:TYR:OH	2.13	0.60
1:S:589:ASN:ND2	1:W:587:ASP:OD1	2.34	0.60
1:e:199:THR:HG22	1:e:201:GLU:HG2	1.83	0.60
1:h:150:ARG:HD2	1:h:156:MET:HE1	1.82	0.60
1:A:501:ARG:HH22	1:B:494:GLY:HA3	1.65	0.60
1:C:484:ILE:HG13	1:C:487:ASP:HB2	1.84	0.60
1:M:115:ALA:HB1	1:M:126:ASP:HB3	1.83	0.60
1:P:320:SER:OG	1:R:348:THR:O	2.19	0.60
1:Z:483:GLN:OE1	1:Z:485:ASN:ND2	2.34	0.60
1:f:583:ARG:NH2	1:g:420:LEU:O	2.34	0.60
1:O:75:ARG:NH2	1:O:86:THR:O	2.34	0.60
1:S:165:ARG:HH11	1:W:328:MET:HB2	1.65	0.60
1:V:332:LEU:HA	1:W:305:ARG:HH22	1.64	0.60
1:X:126:ASP:OD1	1:X:127:THR:N	2.35	0.60
1:a:469:HIS:CD2	1:a:496:ASP:HB2	2.37	0.60
1:d:512:VAL:C	1:d:513:MET:HE2	2.26	0.60
1:A:60:TRP:NE1	1:A:63:GLU:OE1	2.35	0.60
1:G:477:ARG:HH12	1:H:446:THR:CA	2.13	0.60
1:I:588:VAL:O	1:L:591:THR:OG1	2.19	0.60
1:J:87:LEU:HD23	1:J:88:GLU:N	2.14	0.60
1:J:445:TYR:HE1	1:J:495:TYR:HE2	1.48	0.60
1:O:242:ILE:HG22	1:O:271:VAL:HG22	1.84	0.60
1:T:200:ARG:O	1:T:200:ARG:HG3	2.01	0.60
1:W:360:ARG:HD2	1:W:364:MET:HE1	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:90:ASN:O	1:X:120:GLN:NE2	2.33	0.60
1:Y:342:MET:HE1	1:i:309:ILE:HG13	1.84	0.60
1:Z:339:LYS:NZ	1:Z:343:VAL:O	2.30	0.60
1:e:163:ASP:OD1	1:e:164:SER:N	2.31	0.60
1:e:588:VAL:HG13	1:i:588:VAL:HG21	1.83	0.60
1:g:422:ASN:HD22	1:g:428:LYS:HE2	1.66	0.60
1:A:146:GLN:HB3	1:A:156:MET:HE1	1.82	0.60
1:E:380:LYS:HD2	1:E:409:TYR:HE1	1.66	0.60
1:G:418:ASN:O	1:K:583:ARG:NH1	2.34	0.60
1:H:42:PRO:HA	1:H:534:ILE:HD11	1.83	0.60
1:I:363:GLN:HE22	1:I:531:LEU:HD21	1.66	0.60
1:S:57:TRP:NE1	1:S:319:ASP:OD2	2.34	0.60
1:S:425:SER:HB2	1:T:431:ASP:HB2	1.82	0.60
1:V:313:GLU:O	1:X:554:ARG:NH2	2.25	0.60
1:W:219:GLU:HA	1:W:236:PHE:CE1	2.37	0.60
1:Z:426:ALA:N	1:a:431:ASP:OD1	2.34	0.60
1:a:394:ASN:OD1	1:a:395:LEU:N	2.35	0.60
1:e:449:GLN:HG2	1:i:476:MET:HB3	1.84	0.60
1:g:416:VAL:HG11	1:g:576:LEU:HA	1.83	0.60
1:i:94:LEU:HD21	1:i:306:LEU:HB2	1.82	0.60
1:B:520:GLU:OE1	1:B:527:GLN:NE2	2.34	0.60
1:D:87:LEU:HG	1:D:316:LEU:HD22	1.82	0.60
1:M:543:MET:HE1	1:M:545:ARG:HD3	1.84	0.60
1:Q:156:MET:HE1	1:S:60:TRP:CD1	2.37	0.60
1:R:75:ARG:NH2	1:R:86:THR:O	2.34	0.60
1:S:339:LYS:HE3	1:S:349:TYR:CG	2.36	0.60
1:V:583:ARG:HH21	1:W:420:LEU:H	1.49	0.60
1:W:207:MET:O	1:W:252:MET:N	2.29	0.60
1:W:478:LEU:HD21	1:W:573:VAL:HG11	1.84	0.60
1:Y:552:GLU:OE1	1:Y:554:ARG:NH2	2.33	0.60
1:S:165:ARG:CZ	1:W:560:ARG:HH12	2.15	0.60
1:T:591:THR:O	1:T:593:VAL:HG23	2.02	0.60
1:W:219:GLU:HA	1:W:236:PHE:HE1	1.65	0.60
1:e:335:LEU:HD11	1:f:318:ILE:HD11	1.83	0.60
1:E:332:LEU:HB2	1:E:557:PRO:HB2	1.84	0.60
1:L:410:ASN:OD1	1:L:411:GLU:N	2.35	0.60
1:M:150:ARG:HD2	1:M:156:MET:HE1	1.83	0.60
1:O:58:GLU:O	1:O:122:LYS:NZ	2.33	0.60
1:O:480:GLN:HG3	1:R:445:TYR:CE1	2.37	0.60
1:P:488:ASP:OD2	1:R:485:ASN:ND2	2.35	0.60
1:a:234:ASP:OD1	1:a:235:LEU:N	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:d:260:ASP:OD1	1:d:261:THR:N	2.34	0.60
1:f:328:MET:HG2	1:g:165:ARG:HG2	1.84	0.60
1:h:133:SER:OG	1:h:260:ASP:OD2	2.16	0.60
1:j:28:HIS:HB3	1:j:364:MET:HG2	1.84	0.60
1:B:109:ASP:OD2	1:B:111:SER:OG	2.15	0.60
1:E:476:MET:HE1	1:E:503:SER:HA	1.83	0.60
1:W:443:MET:HG3	1:W:569:LEU:HD13	1.84	0.60
1:A:590:GLU:OE2	1:B:418:ASN:ND2	2.35	0.59
1:D:268:LEU:HD21	1:D:290:LEU:HD13	1.83	0.59
1:G:309:ILE:HG12	1:N:340:PRO:HB3	1.84	0.59
1:I:388:PRO:HG3	1:I:450:LEU:HD12	1.83	0.59
1:K:262:SER:O	1:K:264:ARG:NH1	2.34	0.59
1:N:339:LYS:HD3	1:N:349:TYR:CG	2.36	0.59
1:S:380:LYS:HD3	1:S:409:TYR:HE2	1.66	0.59
1:S:400:VAL:HG23	1:S:525:PRO:HB3	1.84	0.59
1:V:320:SER:HB3	1:X:347:LYS:HB3	1.83	0.59
1:b:203:ASN:OD1	1:b:204:PHE:N	2.35	0.59
1:c:433:GLN:CD	1:c:484:ILE:HG23	2.27	0.59
1:d:273:ASP:OD1	1:d:277:LYS:N	2.35	0.59
1:f:592:GLN:OE1	1:f:597:SER:OG	2.17	0.59
1:g:583:ARG:HD3	1:j:587:ASP:HB2	1.83	0.59
1:G:422:ASN:ND2	1:G:431:ASP:OD2	2.35	0.59
1:L:184:PHE:HE1	1:L:223:THR:HG22	1.67	0.59
1:N:583:ARG:NH1	1:O:587:ASP:OD2	2.35	0.59
1:X:158:PHE:HB3	1:c:60:TRP:HE1	1.67	0.59
1:Z:123:ASP:OD2	1:Z:149:SER:N	2.30	0.59
1:c:544:ILE:HD12	1:c:549:ILE:HD13	1.84	0.59
1:i:469:HIS:HE1	1:i:498:THR:HG23	1.66	0.59
1:B:478:LEU:O	1:B:480:GLN:N	2.35	0.59
1:D:219:GLU:HG2	1:D:236:PHE:HB3	1.84	0.59
1:H:28:HIS:HB3	1:H:364:MET:HE2	1.84	0.59
1:J:349:TYR:HD2	1:J:351:ARG:HH21	1.50	0.59
1:M:397:LEU:O	1:N:192:GLN:NE2	2.36	0.59
1:R:200:ARG:HG2	1:R:201:GLU:CD	2.27	0.59
1:T:583:ARG:HE	1:U:420:LEU:H	1.50	0.59
1:Z:28:HIS:N	1:Z:364:MET:HE3	2.18	0.59
1:b:313:GLU:OE1	1:b:313:GLU:N	2.34	0.59
1:B:82:LEU:HD13	1:B:406:ARG:HH11	1.66	0.59
1:C:35:TYR:HD1	1:C:529:GLY:HA3	1.67	0.59
1:G:51:ILE:HD11	1:G:403:TYR:HD2	1.67	0.59
1:G:554:ARG:CZ	1:H:311:GLN:HE22	2.14	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:153:LYS:HD3	1:L:545:ARG:HH12	1.68	0.59
1:K:239:GLY:HA3	1:K:274:LYS:HD2	1.85	0.59
1:L:97:VAL:HG21	1:L:147:THR:HG22	1.84	0.59
1:M:593:VAL:HG23	1:Q:591:THR:HA	1.84	0.59
1:W:200:ARG:HD2	1:W:204:PHE:HA	1.83	0.59
1:d:93:GLU:OE2	1:d:305:ARG:NH1	2.35	0.59
1:g:397:LEU:O	1:g:402:GLN:NE2	2.35	0.59
1:h:449:GLN:HE22	1:j:475:ASP:HB2	1.67	0.59
1:B:399:GLY:O	1:B:402:GLN:NE2	2.26	0.59
1:B:554:ARG:HH22	1:C:314:MET:HA	1.66	0.59
1:D:399:GLY:HA2	1:D:564:PHE:HA	1.84	0.59
1:K:245:ASP:OD2	1:K:267:ARG:NH2	2.31	0.59
1:P:65:LEU:HD22	1:T:146:GLN:HE22	1.67	0.59
1:T:545:ARG:HH21	1:U:314:MET:HE1	1.68	0.59
1:V:163:ASP:OD1	1:V:164:SER:N	2.29	0.59
1:X:531:LEU:HD13	1:X:561:TYR:CE2	2.38	0.59
1:d:414:ILE:HD11	1:d:439:LYS:HG2	1.84	0.59
1:E:70:GLN:NE2	1:P:140:ASN:OD1	2.36	0.59
1:S:478:LEU:HD21	1:S:573:VAL:HG11	1.84	0.59
1:S:589:ASN:O	1:S:591:THR:HG23	2.01	0.59
1:b:215:LEU:HD12	1:b:246:VAL:HG21	1.84	0.59
1:D:114:PRO:O	1:D:116:GLN:NE2	2.34	0.59
1:D:136:GLY:HA3	1:Z:267:ARG:NH1	2.13	0.59
1:G:201:GLU:HG2	1:R:193:TYR:CD1	2.37	0.59
1:G:345:ASP:HB3	1:G:348:THR:HB	1.85	0.59
1:L:467:LYS:HZ1	1:L:495:TYR:HD1	1.51	0.59
1:O:308:ASN:HD21	1:O:312:LEU:H	1.49	0.59
1:W:424:THR:HG22	1:W:426:ALA:H	1.67	0.59
1:a:308:ASN:ND2	1:a:312:LEU:H	2.01	0.59
1:c:283:ASP:O	1:c:287:SER:OG	2.18	0.59
1:h:123:ASP:OD2	1:h:149:SER:N	2.32	0.59
1:A:339:LYS:O	1:A:551:ARG:N	2.36	0.59
1:A:477:ARG:NH1	1:A:577:GLU:OE2	2.36	0.59
1:C:341:ALA:HA	1:C:551:ARG:HG3	1.85	0.59
1:D:264:ARG:NH1	1:Z:262:SER:OG	2.34	0.59
1:D:345:ASP:O	1:D:351:ARG:NH2	2.36	0.59
1:D:355:LEU:HD12	1:D:555:LEU:HD22	1.85	0.59
1:O:513:MET:HG3	1:O:569:LEU:HB2	1.85	0.59
1:U:331:THR:O	1:X:305:ARG:NE	2.20	0.59
1:U:560:ARG:HG2	1:U:562:PHE:CE2	2.38	0.59
1:X:57:TRP:NE1	1:X:319:ASP:OD2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:308:ASN:OD1	1:Y:309:ILE:N	2.34	0.59
1:B:75:ARG:HD2	1:B:76:ASN:H	1.68	0.59
1:G:308:ASN:CG	1:G:311:GLN:H	2.10	0.59
1:O:163:ASP:OD1	1:O:164:SER:N	2.35	0.59
1:P:397:LEU:O	1:Q:192:GLN:NE2	2.36	0.59
1:R:252:MET:HE3	1:R:253:ASN:H	1.68	0.59
1:T:592:GLN:HB3	1:T:597:SER:HB2	1.84	0.59
1:V:213:THR:HG23	1:X:395:LEU:HB2	1.84	0.59
1:V:332:LEU:HA	1:W:305:ARG:NH2	2.17	0.59
1:X:247:LYS:HG3	1:X:264:ARG:HB3	1.85	0.59
1:e:536:GLU:OE2	1:e:558:ARG:HB2	2.03	0.59
1:G:106:GLN:NE2	1:G:138:GLY:O	2.35	0.59
1:K:211:PHE:O	1:K:248:VAL:N	2.36	0.59
1:L:169:LYS:HD3	1:L:170:GLN:HG3	1.84	0.59
1:N:233:LYS:HA	1:N:236:PHE:CD2	2.38	0.59
1:T:203:ASN:OD1	1:T:204:PHE:N	2.35	0.59
1:b:336:VAL:HG22	1:b:554:ARG:HG2	1.83	0.59
1:f:445:TYR:HE2	1:f:495:TYR:HE2	1.51	0.59
1:f:544:ILE:HD12	1:f:549:ILE:HD13	1.85	0.59
1:D:172:LEU:HD11	1:D:183:LEU:HB3	1.83	0.58
1:D:325:GLN:HG2	1:E:192:GLN:HB3	1.85	0.58
1:G:201:GLU:HG2	1:R:193:TYR:HD1	1.68	0.58
1:Z:57:TRP:NE1	1:Z:319:ASP:OD2	2.33	0.58
1:e:140:ASN:HD21	1:e:143:MET:H	1.51	0.58
1:g:591:THR:O	1:g:593:VAL:HG23	2.01	0.58
1:h:552:GLU:OE1	1:h:554:ARG:NH1	2.31	0.58
1:B:56:VAL:HG23	1:B:77:ILE:HG13	1.85	0.58
1:K:78:LEU:HA	1:K:81:LEU:HD23	1.83	0.58
1:K:209:LEU:HD21	1:K:211:PHE:HB2	1.84	0.58
1:K:470:VAL:HG21	1:K:491:VAL:HG11	1.84	0.58
1:N:232:LEU:HD11	1:N:242:ILE:HD13	1.84	0.58
1:N:580:ILE:HD11	1:O:438:SER:HB2	1.85	0.58
1:Q:337:ILE:HG12	1:Q:349:TYR:CZ	2.38	0.58
1:S:590:GLU:O	1:T:593:VAL:HB	2.03	0.58
1:X:196:TYR:CZ	1:X:209:LEU:HB2	2.38	0.58
1:G:337:ILE:HD13	1:H:318:ILE:HB	1.84	0.58
1:J:79:GLN:OE1	1:J:86:THR:OG1	2.20	0.58
1:J:507:MET:HE2	1:J:507:MET:HA	1.85	0.58
1:M:493:ILE:HG13	1:Q:480:GLN:HE21	1.67	0.58
1:S:337:ILE:HG12	1:S:349:TYR:CE1	2.38	0.58
1:Z:433:GLN:NE2	1:Z:484:ILE:HA	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:156:MET:HA	1:b:156:MET:HE3	1.85	0.58
1:b:545:ARG:HH12	1:c:153:LYS:HE3	1.67	0.58
1:h:107:PHE:HE1	1:h:144:LEU:HD11	1.68	0.58
1:h:591:THR:OG1	1:j:589:ASN:OD1	2.17	0.58
1:E:123:ASP:OD2	1:E:149:SER:N	2.35	0.58
1:I:57:TRP:CH2	1:I:60:TRP:HB3	2.39	0.58
1:M:348:THR:HA	1:N:320:SER:HB3	1.84	0.58
1:Q:443:MET:HA	1:Q:443:MET:HE3	1.85	0.58
1:S:87:LEU:O	1:W:362:GLN:NE2	2.30	0.58
1:S:328:MET:HA	1:S:328:MET:HE2	1.86	0.58
1:V:235:LEU:HD13	1:V:242:ILE:HD11	1.86	0.58
1:Y:585:ALA:O	1:c:583:ARG:NH2	2.36	0.58
1:a:408:TYR:OH	1:a:410:ASN:ND2	2.37	0.58
1:g:383:LEU:HD11	1:g:407:PRO:HB2	1.86	0.58
1:C:501:ARG:HH21	1:D:494:GLY:HA3	1.69	0.58
1:D:72:ILE:O	1:D:74:LYS:NZ	2.35	0.58
1:D:335:LEU:HD12	1:E:318:ILE:HD11	1.85	0.58
1:G:325:GLN:HG3	1:H:192:GLN:HE22	1.67	0.58
1:G:331:THR:HA	1:G:558:ARG:HG3	1.84	0.58
1:I:30:PHE:CD2	1:I:502:ILE:HD11	2.39	0.58
1:K:322:VAL:HG22	1:R:204:PHE:HD1	1.68	0.58
1:W:390:PRO:O	1:W:393:SER:OG	2.14	0.58
1:Y:590:GLU:O	1:Z:593:VAL:HB	2.03	0.58
1:b:541:PHE:CE2	1:b:543:MET:HB2	2.39	0.58
1:d:183:LEU:O	1:d:223:THR:OG1	2.16	0.58
1:e:433:GLN:HG3	1:e:481:TYR:O	2.03	0.58
1:C:94:LEU:HD21	1:C:306:LEU:HG	1.83	0.58
1:C:133:SER:OG	1:C:262:SER:OG	2.19	0.58
1:D:161:SER:OG	1:D:307:THR:OG1	2.18	0.58
1:E:169:LYS:NZ	1:E:303:GLU:HA	2.19	0.58
1:J:109:ASP:OD2	1:J:111:SER:OG	2.20	0.58
1:N:331:THR:HA	1:N:558:ARG:HG3	1.84	0.58
1:S:51:ILE:HD11	1:S:403:TYR:HD2	1.69	0.58
1:S:450:LEU:HD21	1:W:508:LYS:HE3	1.86	0.58
1:U:583:ARG:NH2	1:X:420:LEU:O	2.34	0.58
1:V:583:ARG:HH12	1:W:418:ASN:HA	1.68	0.58
1:W:578:GLU:HB2	1:W:582:GLN:OE1	2.03	0.58
1:Z:540:ASP:OD2	1:Z:551:ARG:NH2	2.36	0.58
1:f:543:MET:CE	1:f:545:ARG:HG3	2.29	0.58
1:A:81:LEU:HA	1:E:365:ARG:NH2	2.14	0.58
1:C:247:LYS:HG3	1:C:265:ALA:HB3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:191:ASP:OD1	1:N:192:GLN:N	2.34	0.58
1:O:376:ALA:HA	1:O:568:MET:HE1	1.85	0.58
1:Y:48:GLN:HE21	1:Y:324:LYS:HB2	1.68	0.58
1:c:200:ARG:NH1	1:c:206:LEU:O	2.37	0.58
1:f:330:PRO:HB3	1:g:165:ARG:HD3	1.85	0.58
1:j:391:ILE:HG22	1:j:392:GLU:HG2	1.85	0.58
1:A:75:ARG:NH2	1:A:79:GLN:OE1	2.36	0.58
1:B:388:PRO:HG3	1:B:450:LEU:HD12	1.85	0.58
1:C:269:ALA:HB1	1:C:270:ARG:NH2	2.19	0.58
1:E:36:ARG:NH2	1:E:518:PRO:O	2.37	0.58
1:G:589:ASN:ND2	1:K:586:LEU:O	2.36	0.58
1:J:313:GLU:O	1:L:554:ARG:NH1	2.29	0.58
1:Q:423:LEU:HD12	1:Q:586:LEU:HD11	1.84	0.58
1:Q:478:LEU:HD23	1:Q:511:ILE:HD11	1.86	0.58
1:S:247:LYS:HD2	1:S:264:ARG:HH21	1.69	0.58
1:X:143:MET:HA	1:X:143:MET:HE3	1.85	0.58
1:X:200:ARG:HH22	1:c:48:GLN:NE2	2.02	0.58
1:X:372:LEU:HD21	1:X:512:VAL:HG11	1.86	0.58
1:Y:212:HIS:CG	1:Y:247:LYS:HG2	2.39	0.58
1:Y:484:ILE:HG21	1:Y:487:ASP:HB2	1.85	0.58
1:A:67:GLY:HA3	1:K:103:ASN:HD21	1.68	0.58
1:G:263:LEU:HD13	1:G:297:GLY:HA3	1.86	0.58
1:S:347:LYS:HE2	1:S:347:LYS:HA	1.84	0.58
1:T:79:GLN:HB2	1:T:391:ILE:HD11	1.86	0.58
1:Y:363:GLN:HE22	1:Y:531:LEU:HD21	1.69	0.58
1:a:461:PHE:HB3	1:a:464:ARG:HH12	1.68	0.58
1:b:172:LEU:HD11	1:b:183:LEU:HB3	1.86	0.58
1:B:345:ASP:O	1:B:351:ARG:NH1	2.36	0.58
1:J:593:VAL:HB	1:L:590:GLU:O	2.03	0.58
1:L:467:LYS:HD3	1:L:468:PRO:O	2.04	0.58
1:O:163:ASP:HB2	1:O:305:ARG:HB2	1.86	0.58
1:T:30:PHE:HB2	1:T:502:ILE:HD11	1.85	0.58
1:U:560:ARG:HG2	1:U:562:PHE:HE2	1.67	0.58
1:V:592:GLN:HG2	1:W:593:VAL:HG12	1.86	0.58
1:X:543:MET:SD	1:X:545:ARG:HG2	2.44	0.58
1:B:477:ARG:NE	1:C:449:GLN:OE1	2.34	0.57
1:C:350:PRO:HG3	1:D:319:ASP:HA	1.86	0.57
1:C:440:ILE:HD12	1:C:513:MET:HE1	1.85	0.57
1:G:165:ARG:HH12	1:K:560:ARG:HD2	1.68	0.57
1:H:476:MET:HB3	1:I:449:GLN:OE1	2.04	0.57
1:J:433:GLN:NE2	1:J:484:ILE:HA	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:75:ARG:NH2	1:M:86:THR:O	2.37	0.57
1:P:418:ASN:O	1:R:583:ARG:NE	2.37	0.57
1:V:332:LEU:HB2	1:V:557:PRO:HG2	1.85	0.57
1:Y:583:ARG:HD3	1:Z:419:ASP:HA	1.84	0.57
1:a:83:ASP:OD1	1:a:84:TYR:N	2.34	0.57
1:g:380:LYS:HD3	1:g:409:TYR:HE2	1.68	0.57
1:A:475:ASP:OD2	1:A:509:ASP:N	2.19	0.57
1:A:531:LEU:HD22	1:A:561:TYR:HE1	1.68	0.57
1:B:344:GLU:O	1:B:348:THR:OG1	2.22	0.57
1:C:480:GLN:HB3	1:D:445:TYR:CE1	2.39	0.57
1:D:480:GLN:HB3	1:E:445:TYR:CD2	2.39	0.57
1:L:42:PRO:HA	1:L:534:ILE:HD11	1.86	0.57
1:R:351:ARG:NE	1:R:352:LEU:HD12	2.19	0.57
1:S:369:VAL:HG12	1:S:506:ARG:HH11	1.69	0.57
1:W:481:TYR:HE1	1:W:576:LEU:HD21	1.68	0.57
1:X:544:ILE:HD11	1:X:547:GLN:HA	1.86	0.57
1:A:146:GLN:HA	1:A:150:ARG:HE	1.69	0.57
1:B:425:SER:HB3	1:B:583:ARG:HE	1.68	0.57
1:C:476:MET:HE3	1:D:449:GLN:HA	1.86	0.57
1:L:137:GLU:N	1:L:137:GLU:OE1	2.37	0.57
1:Q:70:GLN:NE2	1:Q:71:GLU:O	2.36	0.57
1:S:33:LEU:HD13	1:S:500:ALA:HB2	1.84	0.57
1:W:73:SER:C	1:W:74:LYS:HD2	2.29	0.57
1:b:587:ASP:OD2	1:d:583:ARG:NH2	2.37	0.57
1:h:81:LEU:HD21	1:h:455:ALA:HB1	1.86	0.57
1:J:397:LEU:H	1:K:192:GLN:HE22	1.52	0.57
1:M:476:MET:HB2	1:N:449:GLN:HG2	1.86	0.57
1:U:433:GLN:NE2	1:U:484:ILE:HG12	2.20	0.57
1:Z:83:ASP:OD1	1:Z:84:TYR:N	2.38	0.57
1:c:215:LEU:N	1:c:244:LEU:O	2.31	0.57
1:e:51:ILE:HD11	1:e:403:TYR:HD2	1.69	0.57
1:A:414:ILE:HD11	1:A:439:LYS:HG2	1.86	0.57
1:D:480:GLN:HB3	1:E:445:TYR:CE2	2.39	0.57
1:N:417:LEU:HA	1:N:579:ALA:HB2	1.86	0.57
1:O:78:LEU:HA	1:O:81:LEU:HD23	1.86	0.57
1:S:337:ILE:HG12	1:S:349:TYR:HE1	1.69	0.57
1:e:196:TYR:CZ	1:e:209:LEU:HD12	2.39	0.57
1:e:376:ALA:HA	1:e:568:MET:HE1	1.86	0.57
1:L:592:GLN:NE2	1:L:597:SER:OG	2.37	0.57
1:O:347:LYS:NZ	1:R:322:VAL:HG22	2.18	0.57
1:Y:433:GLN:HB2	1:Y:484:ILE:HD12	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:397:LEU:H	1:d:192:GLN:HE22	1.53	0.57
1:f:90:ASN:O	1:f:90:ASN:ND2	2.25	0.57
1:D:161:SER:HG	1:D:307:THR:HG1	1.48	0.57
1:H:68:GLU:HG3	1:H:69:LYS:H	1.70	0.57
1:I:420:LEU:HD11	1:I:431:ASP:HB3	1.85	0.57
1:P:165:ARG:HH12	1:R:560:ARG:NH2	2.01	0.57
1:T:476:MET:HB3	1:U:449:GLN:OE1	2.04	0.57
1:U:58:GLU:OE1	1:U:75:ARG:NH1	2.34	0.57
1:W:189:ASN:ND2	1:W:303:GLU:OE2	2.37	0.57
1:X:590:GLU:O	1:X:590:GLU:HG2	2.05	0.57
1:d:51:ILE:HD13	1:d:403:TYR:HD2	1.69	0.57
1:g:207:MET:HE2	1:g:207:MET:HA	1.87	0.57
1:M:315:GLY:HA3	1:Q:336:VAL:HG22	1.86	0.57
1:M:328:MET:O	1:N:165:ARG:NH1	2.36	0.57
1:M:422:ASN:ND2	1:M:428:LYS:HD2	2.19	0.57
1:N:328:MET:HB3	1:O:165:ARG:HH11	1.70	0.57
1:T:36:ARG:HH22	1:T:518:PRO:C	2.13	0.57
1:W:141:LEU:N	1:W:257:GLY:O	2.34	0.57
1:e:330:PRO:HB2	1:f:305:ARG:NH2	2.20	0.57
1:i:410:ASN:OD1	1:i:411:GLU:N	2.38	0.57
1:B:138:GLY:H	1:J:69:LYS:NZ	2.01	0.57
1:B:330:PRO:HG3	1:C:165:ARG:HH11	1.69	0.57
1:G:273:ASP:OD1	1:G:277:LYS:N	2.33	0.57
1:H:414:ILE:HD11	1:H:439:LYS:HG2	1.86	0.57
1:I:592:GLN:HE22	1:L:594:THR:HA	1.69	0.57
1:O:261:THR:OG1	1:O:300:TYR:OH	2.12	0.57
1:R:208:GLN:HG3	1:R:251:GLU:HG2	1.87	0.57
1:T:75:ARG:HH12	1:T:86:THR:HA	1.69	0.57
1:X:513:MET:HB2	1:X:569:LEU:HB2	1.86	0.57
1:b:543:MET:HE1	1:b:545:ARG:HD3	1.86	0.57
1:f:36:ARG:HB2	1:f:36:ARG:HH11	1.70	0.57
1:f:367:ASN:HD22	1:f:559:TYR:HE1	1.53	0.57
1:f:483:GLN:OE1	1:f:485:ASN:ND2	2.37	0.57
1:g:338:VAL:HG21	1:j:314:MET:HE1	1.85	0.57
1:i:511:ILE:HB	1:i:571:ILE:HB	1.87	0.57
1:j:423:LEU:HD12	1:j:586:LEU:HD21	1.86	0.57
1:B:138:GLY:H	1:J:69:LYS:HZ1	1.53	0.57
1:B:589:ASN:O	1:C:421:ASN:ND2	2.38	0.57
1:D:203:ASN:OD1	1:D:204:PHE:N	2.34	0.57
1:D:472:ILE:HG12	1:D:513:MET:HG2	1.87	0.57
1:J:230:ALA:HA	1:J:233:LYS:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:318:ILE:H	1:L:337:ILE:HD13	1.70	0.57
1:N:128:ASN:OD1	1:N:129:PHE:N	2.35	0.57
1:R:502:ILE:HG22	1:R:504:ASP:H	1.70	0.57
1:T:365:ARG:NH2	1:U:81:LEU:HD13	2.19	0.57
1:X:330:PRO:HD2	1:X:560:ARG:HG3	1.86	0.57
1:X:523:PRO:HG3	1:X:530:VAL:HG11	1.87	0.57
1:c:196:TYR:CE1	1:c:209:LEU:HB2	2.40	0.57
1:d:491:VAL:HG21	1:d:497:TYR:HB3	1.85	0.57
1:f:35:TYR:HD1	1:f:529:GLY:HA3	1.69	0.57
1:L:189:ASN:OD1	1:L:190:ARG:N	2.37	0.56
1:S:545:ARG:HH11	1:T:153:LYS:HZ3	1.53	0.56
1:X:210:LYS:HD2	1:X:212:HIS:CE1	2.40	0.56
1:Y:219:GLU:HG3	1:Y:241:ARG:HG2	1.87	0.56
1:f:249:ASP:OD1	1:f:250:GLY:N	2.38	0.56
1:h:160:ASP:HB3	1:h:306:LEU:HD11	1.87	0.56
1:h:469:HIS:HD1	1:h:496:ASP:CG	2.13	0.56
1:j:382:TYR:CD2	1:j:397:LEU:HD21	2.40	0.56
1:G:438:SER:HA	1:G:489:ARG:NH2	2.20	0.56
1:I:400:VAL:HG13	1:I:525:PRO:HB3	1.88	0.56
1:N:185:ALA:H	1:N:224:VAL:HG21	1.71	0.56
1:R:174:SER:OG	1:R:296:THR:OG1	2.22	0.56
1:S:247:LYS:HG3	1:S:264:ARG:HE	1.71	0.56
1:a:177:LYS:HB2	1:a:293:LEU:HD23	1.87	0.56
1:f:230:ALA:HA	1:f:233:LYS:HZ3	1.70	0.56
1:A:166:ILE:HD13	1:A:252:MET:HE2	1.86	0.56
1:A:310:ASN:ND2	1:O:549:ILE:O	2.38	0.56
1:A:378:THR:O	1:A:381:SER:OG	2.24	0.56
1:C:358:ALA:HA	1:D:77:ILE:HD11	1.87	0.56
1:D:140:ASN:ND2	1:D:143:MET:HG2	2.20	0.56
1:G:212:HIS:NE2	1:G:247:LYS:HE3	2.20	0.56
1:G:349:TYR:OH	1:H:318:ILE:O	2.14	0.56
1:I:55:LEU:HD23	1:I:74:LYS:HD2	1.86	0.56
1:J:420:LEU:HD11	1:J:431:ASP:HB3	1.86	0.56
1:M:314:MET:HE3	1:M:317:LEU:HD11	1.86	0.56
1:P:592:GLN:HE22	1:Q:594:THR:HA	1.70	0.56
1:R:196:TYR:HE1	1:R:209:LEU:HD22	1.71	0.56
1:T:330:PRO:HG3	1:U:165:ARG:HD3	1.87	0.56
1:U:375:ARG:NH2	1:U:565:LEU:O	2.39	0.56
1:Y:247:LYS:HB2	1:Y:265:ALA:HB3	1.88	0.56
1:a:247:LYS:HZ2	1:a:264:ARG:HD2	1.69	0.56
1:d:400:VAL:HA	1:d:402:GLN:HE22	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:239:GLY:HA3	1:e:274:LYS:HE2	1.87	0.56
1:g:269:ALA:C	1:g:270:ARG:HD3	2.30	0.56
1:h:270:ARG:HA	1:h:281:LEU:HD11	1.87	0.56
1:h:331:THR:HG22	1:h:558:ARG:HD3	1.87	0.56
1:h:540:ASP:HB3	1:h:553:ILE:HG22	1.87	0.56
1:i:375:ARG:HG3	1:i:568:MET:HE1	1.87	0.56
1:B:331:THR:HG23	1:B:558:ARG:HB3	1.87	0.56
1:D:83:ASP:OD1	1:D:84:TYR:N	2.36	0.56
1:M:391:ILE:HG22	1:M:392:GLU:HG3	1.87	0.56
1:R:242:ILE:HG22	1:R:271:VAL:HG22	1.88	0.56
1:R:268:LEU:HD21	1:R:290:LEU:HD23	1.87	0.56
1:T:431:ASP:OD2	1:T:432:ILE:N	2.39	0.56
1:Z:543:MET:HE1	1:Z:545:ARG:HH11	1.70	0.56
1:d:203:ASN:OD1	1:d:204:PHE:N	2.38	0.56
1:d:449:GLN:HG3	1:d:450:LEU:HD22	1.86	0.56
1:e:594:THR:HA	1:i:592:GLN:OE1	2.06	0.56
1:h:590:GLU:O	1:i:593:VAL:HB	2.06	0.56
1:H:422:ASN:ND2	1:H:428:LYS:HG3	2.19	0.56
1:J:200:ARG:HG3	1:e:324:LYS:NZ	2.19	0.56
1:N:123:ASP:OD2	1:N:149:SER:N	2.36	0.56
1:Q:196:TYR:CE2	1:Q:209:LEU:HB2	2.41	0.56
1:R:55:LEU:HD11	1:R:74:LYS:HB3	1.87	0.56
1:S:370:THR:HG22	1:S:506:ARG:HH22	1.69	0.56
1:U:575:ASN:ND2	1:U:578:GLU:OE2	2.31	0.56
1:Y:560:ARG:NH1	1:Z:190:ARG:HH12	2.03	0.56
1:a:183:LEU:O	1:a:223:THR:OG1	2.21	0.56
1:d:173:ILE:HG22	1:d:184:PHE:HB2	1.88	0.56
1:g:584:THR:OG1	1:j:421:ASN:ND2	2.39	0.56
1:j:565:LEU:HG	1:j:567:ILE:HG22	1.87	0.56
1:B:159:THR:HG23	1:L:548:ARG:HE	1.70	0.56
1:C:57:TRP:CD1	1:C:59:GLY:H	2.24	0.56
1:E:457:LEU:HD23	1:E:526:LEU:HD13	1.88	0.56
1:J:547:GLN:OE1	1:O:545:ARG:HG3	2.06	0.56
1:L:309:ILE:O	1:L:311:GLN:NE2	2.38	0.56
1:L:390:PRO:O	1:L:393:SER:OG	2.12	0.56
1:M:536:GLU:OE1	1:M:556:THR:OG1	2.24	0.56
1:O:133:SER:OG	1:O:260:ASP:OD1	2.22	0.56
1:P:593:VAL:HB	1:R:590:GLU:O	2.05	0.56
1:W:233:LYS:HA	1:W:236:PHE:HB2	1.88	0.56
1:a:203:ASN:OD1	1:a:204:PHE:N	2.39	0.56
1:g:545:ARG:NH1	1:j:314:MET:SD	2.78	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:g:588:VAL:HG21	1:j:588:VAL:HG13	1.88	0.56
1:A:390:PRO:HG2	1:A:393:SER:HB3	1.87	0.56
1:D:256:ASN:ND2	1:Y:70:GLN:OE1	2.38	0.56
1:J:420:LEU:N	1:L:583:ARG:HH22	2.03	0.56
1:O:212:HIS:HB3	1:O:247:LYS:HE3	1.87	0.56
1:V:333:PRO:HD3	1:W:305:ARG:HH22	1.70	0.56
1:W:544:ILE:HD13	1:W:549:ILE:HG13	1.87	0.56
1:b:404:TYR:CE2	1:b:526:LEU:HD11	2.40	0.56
1:d:379:LEU:HD12	1:d:568:MET:HE3	1.88	0.56
1:e:192:GLN:NE2	1:i:397:LEU:H	2.03	0.56
1:h:536:GLU:CD	1:h:558:ARG:HH21	2.13	0.56
1:D:57:TRP:CZ2	1:D:59:GLY:HA2	2.40	0.56
1:E:203:ASN:OD1	1:E:204:PHE:N	2.38	0.56
1:E:345:ASP:OD2	1:E:551:ARG:NH1	2.37	0.56
1:G:204:PHE:HE2	1:O:324:LYS:HG2	1.70	0.56
1:H:330:PRO:HB3	1:I:165:ARG:HB3	1.88	0.56
1:I:365:ARG:NH2	1:I:503:SER:OG	2.38	0.56
1:J:541:PHE:CE2	1:J:543:MET:HB3	2.41	0.56
1:O:75:ARG:HH21	1:O:86:THR:HA	1.70	0.56
1:T:560:ARG:HH21	1:U:190:ARG:CZ	2.19	0.56
1:U:60:TRP:HZ3	1:Y:157:THR:HA	1.70	0.56
1:W:253:ASN:OD1	1:W:254:VAL:N	2.39	0.56
1:X:332:LEU:HB2	1:X:557:PRO:HG2	1.87	0.56
1:X:487:ASP:OD2	1:X:488:ASP:N	2.38	0.56
1:i:355:LEU:HD21	1:i:555:LEU:HD23	1.87	0.56
1:i:438:SER:HB2	1:i:489:ARG:NH1	2.21	0.56
1:A:337:ILE:HG13	1:A:355:LEU:HD21	1.86	0.56
1:D:169:LYS:NZ	1:D:303:GLU:HA	2.20	0.56
1:G:590:GLU:HG3	1:G:592:GLN:N	2.18	0.56
1:H:53:ARG:NH1	1:H:392:GLU:OE2	2.38	0.56
1:H:208:GLN:NE2	1:H:251:GLU:OE2	2.39	0.56
1:U:333:PRO:HB2	1:X:89:THR:HG23	1.88	0.56
1:V:367:ASN:HD22	1:V:559:TYR:HE2	1.54	0.56
1:Z:347:LYS:HB3	1:a:52:ARG:NH2	2.21	0.56
1:Z:347:LYS:HB3	1:a:52:ARG:HH22	1.69	0.56
1:a:308:ASN:ND2	1:j:548:ARG:HH12	2.04	0.56
1:b:128:ASN:OD1	1:b:129:PHE:N	2.37	0.56
1:h:52:ARG:HA	1:h:322:VAL:HG12	1.87	0.56
1:h:375:ARG:HH11	1:h:563:ASN:HB3	1.69	0.56
1:i:97:VAL:HG12	1:i:99:GLN:HE22	1.71	0.56
1:D:150:ARG:HA	1:D:153:LYS:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:249:ASP:O	1:I:262:SER:N	2.34	0.56
1:J:349:TYR:O	1:J:351:ARG:NH2	2.38	0.56
1:O:219:GLU:HA	1:O:236:PHE:CE1	2.41	0.56
1:O:375:ARG:HH12	1:O:398:GLU:HB2	1.68	0.56
1:S:399:GLY:O	1:S:402:GLN:NE2	2.35	0.56
1:U:457:LEU:HD21	1:U:466:PRO:HB2	1.88	0.56
1:U:534:ILE:HG22	1:U:558:ARG:HB2	1.88	0.56
1:W:212:HIS:ND1	1:W:247:LYS:HG2	2.21	0.56
1:X:96:PRO:HB3	1:X:144:LEU:HD21	1.88	0.56
1:X:478:LEU:O	1:X:480:GLN:N	2.35	0.56
1:Y:420:LEU:O	1:c:583:ARG:NE	2.39	0.56
1:a:249:ASP:OD2	1:a:250:GLY:N	2.39	0.56
1:b:239:GLY:HA3	1:b:274:LYS:HE3	1.88	0.56
1:b:514:THR:HG22	1:b:568:MET:HA	1.87	0.56
1:d:457:LEU:HD23	1:d:526:LEU:HD13	1.87	0.56
1:e:268:LEU:HD12	1:e:290:LEU:HD13	1.86	0.56
1:f:53:ARG:NH1	1:f:392:GLU:OE2	2.38	0.56
1:h:87:LEU:HB3	1:j:362:GLN:NE2	2.20	0.56
1:h:163:ASP:OD1	1:h:164:SER:N	2.35	0.56
1:i:30:PHE:CG	1:i:502:ILE:HD11	2.41	0.56
1:A:43:ASP:OD1	1:A:44:GLN:N	2.39	0.55
1:C:334:PRO:HB2	1:C:554:ARG:HD2	1.89	0.55
1:C:554:ARG:HH22	1:D:314:MET:HE1	1.71	0.55
1:C:560:ARG:HH12	1:D:165:ARG:NE	2.03	0.55
1:H:365:ARG:HH11	1:H:502:ILE:HG13	1.71	0.55
1:J:210:LYS:HD3	1:J:212:HIS:CE1	2.41	0.55
1:J:342:MET:SD	1:J:343:VAL:HG13	2.46	0.55
1:V:160:ASP:HB3	1:V:306:LEU:HD11	1.87	0.55
1:V:420:LEU:HD23	1:V:428:LYS:HZ1	1.71	0.55
1:Z:335:LEU:HB2	1:a:316:LEU:HB2	1.88	0.55
1:Z:484:ILE:HG22	1:Z:487:ASP:H	1.71	0.55
1:f:365:ARG:CD	1:f:502:ILE:HD11	2.36	0.55
1:g:592:GLN:OE1	1:j:594:THR:HA	2.05	0.55
1:i:329:ILE:HD12	1:i:560:ARG:HB3	1.89	0.55
1:j:544:ILE:HG12	1:j:549:ILE:HG12	1.88	0.55
1:G:83:ASP:OD1	1:G:84:TYR:N	2.37	0.55
1:O:308:ASN:ND2	1:O:312:LEU:H	2.04	0.55
1:P:420:LEU:HD22	1:P:432:ILE:HD11	1.88	0.55
1:Q:115:ALA:HB1	1:Q:126:ASP:HB2	1.88	0.55
1:S:252:MET:HE2	1:S:259:GLY:HA3	1.88	0.55
1:T:386:GLY:HA2	1:T:408:TYR:HE1	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:191:ASP:OD1	1:W:192:GLN:N	2.39	0.55
1:X:203:ASN:OD1	1:c:323:GLN:NE2	2.31	0.55
1:Z:43:ASP:OD1	1:Z:44:GLN:N	2.40	0.55
1:Z:580:ILE:HD11	1:a:438:SER:HB3	1.88	0.55
1:h:421:ASN:OD1	1:j:583:ARG:NE	2.39	0.55
1:E:271:VAL:HG11	1:E:286:VAL:HG11	1.87	0.55
1:M:166:ILE:HG13	1:M:196:TYR:CD1	2.41	0.55
1:O:437:VAL:HA	1:O:440:ILE:HG22	1.88	0.55
1:X:201:GLU:CD	1:X:202:TYR:HB2	2.32	0.55
1:Y:402:GLN:HG3	1:Y:566:PRO:HG3	1.88	0.55
1:a:372:LEU:HD21	1:a:512:VAL:HG11	1.88	0.55
1:b:511:ILE:HB	1:b:571:ILE:HB	1.89	0.55
1:e:55:LEU:HD13	1:e:74:LYS:HB3	1.88	0.55
1:g:443:MET:HB3	1:g:569:LEU:HD23	1.89	0.55
1:E:76:ASN:HD21	1:E:391:ILE:HG21	1.72	0.55
1:G:158:PHE:CE1	1:O:60:TRP:HD1	2.25	0.55
1:G:219:GLU:HA	1:G:236:PHE:CE2	2.42	0.55
1:M:207:MET:HA	1:M:207:MET:HE3	1.88	0.55
1:O:485:ASN:HD21	1:R:493:ILE:HG12	1.71	0.55
1:P:373:LEU:HD21	1:P:507:MET:HE1	1.88	0.55
1:U:83:ASP:OD1	1:U:84:TYR:N	2.39	0.55
1:Z:140:ASN:ND2	1:Z:257:GLY:O	2.40	0.55
1:i:55:LEU:HD12	1:i:74:LYS:HB3	1.87	0.55
1:A:595:PRO:HA	1:B:585:ALA:HA	1.88	0.55
1:E:210:LYS:HE2	1:E:212:HIS:CD2	2.41	0.55
1:H:321:ASP:OD1	1:H:322:VAL:N	2.39	0.55
1:I:433:GLN:HG2	1:I:481:TYR:O	2.05	0.55
1:N:382:TYR:HA	1:O:241:ARG:NH1	2.22	0.55
1:S:332:LEU:HB2	1:S:557:PRO:HG2	1.88	0.55
1:Y:478:LEU:HD13	1:Y:511:ILE:HD11	1.89	0.55
1:Z:268:LEU:HD12	1:Z:290:LEU:HD13	1.88	0.55
1:c:540:ASP:HB3	1:c:553:ILE:HG12	1.88	0.55
1:B:531:LEU:HD12	1:B:561:TYR:CE1	2.41	0.55
1:J:337:ILE:HD11	1:J:355:LEU:HB2	1.87	0.55
1:J:399:GLY:O	1:J:402:GLN:NE2	2.40	0.55
1:K:57:TRP:CZ3	1:K:60:TRP:HA	2.42	0.55
1:K:314:MET:HE3	1:K:314:MET:HA	1.87	0.55
1:U:587:ASP:HB2	1:X:591:THR:HG21	1.87	0.55
1:f:199:THR:HG22	1:f:208:GLN:HB2	1.89	0.55
1:f:339:LYS:NZ	1:f:343:VAL:O	2.26	0.55
1:f:352:LEU:HD11	1:f:553:ILE:HG21	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:320:SER:HB2	1:j:348:THR:HA	1.89	0.55
1:B:365:ARG:HD2	1:B:502:ILE:HD11	1.88	0.55
1:I:283:ASP:OD1	1:I:284:SER:N	2.40	0.55
1:J:200:ARG:HE	1:e:324:LYS:H	1.55	0.55
1:J:308:ASN:HD21	1:L:334:PRO:HG3	1.70	0.55
1:J:477:ARG:HH22	1:K:446:THR:HG23	1.71	0.55
1:L:123:ASP:OD2	1:L:149:SER:N	2.39	0.55
1:L:464:ARG:HD2	1:L:466:PRO:HG3	1.89	0.55
1:N:114:PRO:O	1:N:116:GLN:NE2	2.40	0.55
1:N:342:MET:SD	1:N:343:VAL:HG13	2.46	0.55
1:Q:267:ARG:HH22	1:T:137:GLU:HG3	1.71	0.55
1:W:207:MET:N	1:W:252:MET:O	2.30	0.55
1:b:388:PRO:HB2	1:b:406:ARG:HD3	1.89	0.55
1:d:375:ARG:HH22	1:d:398:GLU:HB2	1.71	0.55
1:f:433:GLN:HG3	1:f:481:TYR:O	2.06	0.55
1:g:414:ILE:HD11	1:g:439:LYS:HG2	1.88	0.55
1:h:439:LYS:HZ3	1:h:443:MET:HE3	1.72	0.55
1:B:544:ILE:HD12	1:B:549:ILE:HG13	1.89	0.55
1:G:397:LEU:HD21	1:G:566:PRO:HB3	1.88	0.55
1:J:504:ASP:OD1	1:J:506:ARG:HD3	2.07	0.55
1:M:165:ARG:HE	1:Q:560:ARG:HH12	1.54	0.55
1:M:331:THR:HG22	1:M:558:ARG:HE	1.71	0.55
1:Q:157:THR:OG1	1:Q:160:ASP:N	2.40	0.55
1:T:80:GLY:HA2	1:T:86:THR:HG21	1.89	0.55
1:T:341:ALA:HB2	1:T:551:ARG:H	1.72	0.55
1:V:308:ASN:ND2	1:V:312:LEU:H	2.05	0.55
1:X:538:LEU:H	1:X:538:LEU:HD23	1.72	0.55
1:Y:433:GLN:NE2	1:Y:487:ASP:OD2	2.37	0.55
1:Z:66:SER:OG	1:Z:67:GLY:N	2.40	0.55
1:f:158:PHE:HD2	1:f:159:THR:HG23	1.72	0.55
1:B:52:ARG:HE	1:B:320:SER:HB2	1.71	0.55
1:J:83:ASP:OD1	1:J:84:TYR:N	2.37	0.55
1:L:94:LEU:HB3	1:L:304:ALA:HB3	1.88	0.55
1:Q:212:HIS:N	1:T:202:TYR:OH	2.38	0.55
1:T:543:MET:HG2	1:T:552:GLU:HG3	1.88	0.55
1:W:62:GLY:HA3	1:W:67:GLY:HA2	1.89	0.55
1:a:171:LEU:HD12	1:a:188:VAL:HG11	1.89	0.55
1:b:425:SER:N	1:c:421:ASN:OD1	2.40	0.55
1:h:587:ASP:HB2	1:j:583:ARG:NH1	2.22	0.55
1:E:429:GLN:HE22	1:E:433:GLN:NE2	1.98	0.55
1:G:191:ASP:OD1	1:G:192:GLN:N	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:414:ILE:HD11	1:G:435:LEU:HG	1.89	0.55
1:J:153:LYS:NZ	1:i:547:GLN:HB2	2.22	0.55
1:K:420:LEU:HG	1:K:422:ASN:OD1	2.07	0.55
1:N:458:GLU:HB2	1:N:466:PRO:HG3	1.89	0.55
1:Z:184:PHE:HE2	1:Z:186:LEU:HD23	1.72	0.55
1:a:308:ASN:HD21	1:j:548:ARG:NH1	2.05	0.55
1:B:380:LYS:HD3	1:B:409:TYR:CE1	2.42	0.54
1:E:68:GLU:OE2	1:P:106:GLN:NE2	2.41	0.54
1:G:588:VAL:HG13	1:K:588:VAL:HG21	1.89	0.54
1:K:433:GLN:HG3	1:K:481:TYR:O	2.07	0.54
1:R:398:GLU:OE2	1:R:399:GLY:N	2.40	0.54
1:W:169:LYS:NZ	1:W:189:ASN:HD22	2.06	0.54
1:h:36:ARG:NH1	1:h:36:ARG:HB2	2.22	0.54
1:B:542:ASN:HB2	1:B:551:ARG:NH1	2.22	0.54
1:C:106:GLN:HE22	1:i:68:GLU:H	1.55	0.54
1:C:339:LYS:HD3	1:C:340:PRO:HD2	1.89	0.54
1:G:372:LEU:HD21	1:G:512:VAL:HG11	1.89	0.54
1:J:376:ALA:HA	1:J:568:MET:HE1	1.89	0.54
1:P:263:LEU:HD21	1:P:266:LEU:HG	1.89	0.54
1:P:489:ARG:HH22	1:R:426:ALA:HA	1.71	0.54
1:T:252:MET:HE3	1:T:253:ASN:N	2.19	0.54
1:U:348:THR:HA	1:X:320:SER:HB3	1.89	0.54
1:X:62:GLY:H	1:X:68:GLU:HG2	1.72	0.54
1:Z:37:THR:HG22	1:Z:531:LEU:HD23	1.89	0.54
1:b:436:ILE:O	1:b:440:ILE:HG13	2.08	0.54
1:b:516:ILE:HG12	1:b:517:LEU:N	2.22	0.54
1:d:55:LEU:HD13	1:d:74:LYS:HE3	1.88	0.54
1:h:75:ARG:HB3	1:h:86:THR:HG23	1.88	0.54
1:j:590:GLU:O	1:j:590:GLU:HG2	2.08	0.54
1:A:493:ILE:HD12	1:E:483:GLN:HG2	1.90	0.54
1:C:345:ASP:O	1:C:351:ARG:NH1	2.40	0.54
1:E:448:ASP:OD1	1:E:495:TYR:OH	2.22	0.54
1:K:420:LEU:HD23	1:K:584:THR:HG21	1.89	0.54
1:N:83:ASP:OD1	1:N:84:TYR:N	2.40	0.54
1:N:472:ILE:HA	1:N:513:MET:HE1	1.89	0.54
1:V:594:THR:O	1:V:596:ALA:N	2.39	0.54
1:W:586:LEU:O	1:W:588:VAL:N	2.39	0.54
1:d:422:ASN:HD21	1:d:428:LYS:HG2	1.73	0.54
1:g:123:ASP:OD2	1:g:149:SER:N	2.40	0.54
1:E:88:GLU:OE2	1:E:89:THR:N	2.38	0.54
1:E:196:TYR:CE1	1:E:209:LEU:HB2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:57:TRP:CG	1:G:74:LYS:HZ1	2.26	0.54
1:U:171:LEU:HD13	1:U:188:VAL:HG21	1.89	0.54
1:e:208:GLN:HE22	1:e:210:LYS:HB2	1.71	0.54
1:f:379:LEU:O	1:f:383:LEU:HB2	2.07	0.54
1:i:212:HIS:HD1	1:i:247:LYS:HA	1.71	0.54
1:C:103:ASN:ND2	1:i:66:SER:OG	2.41	0.54
1:D:310:ASN:ND2	1:c:548:ARG:HD2	2.22	0.54
1:D:420:LEU:HD21	1:D:435:LEU:HD13	1.89	0.54
1:G:272:PHE:CE2	1:G:276:GLY:HA2	2.43	0.54
1:G:588:VAL:N	1:H:589:ASN:O	2.40	0.54
1:H:337:ILE:HD13	1:H:349:TYR:HD1	1.72	0.54
1:H:345:ASP:OD2	1:H:348:THR:OG1	2.23	0.54
1:I:308:ASN:OD1	1:I:309:ILE:N	2.41	0.54
1:J:410:ASN:OD1	1:J:411:GLU:N	2.38	0.54
1:K:325:GLN:HG3	1:K:400:VAL:HG22	1.87	0.54
1:N:203:ASN:OD1	1:N:204:PHE:N	2.39	0.54
1:O:219:GLU:HA	1:O:236:PHE:CD1	2.42	0.54
1:O:423:LEU:HA	1:O:586:LEU:HD21	1.90	0.54
1:Q:92:THR:HG22	1:Q:313:GLU:HG2	1.89	0.54
1:S:171:LEU:HD13	1:S:188:VAL:HG21	1.89	0.54
1:U:69:LYS:NZ	1:Y:258:ASN:HB3	2.22	0.54
1:U:375:ARG:HE	1:U:379:LEU:HD21	1.72	0.54
1:U:469:HIS:CD2	1:U:496:ASP:HB2	2.43	0.54
1:Y:147:THR:HG22	1:Y:150:ARG:HD2	1.90	0.54
1:Y:409:TYR:OH	1:Y:411:GLU:OE1	2.22	0.54
1:Z:308:ASN:OD1	1:Z:311:GLN:HB3	2.07	0.54
1:c:397:LEU:HD12	1:c:398:GLU:H	1.72	0.54
1:g:131:LYS:NZ	1:g:132:PHE:O	2.39	0.54
1:h:37:THR:HA	1:h:531:LEU:HB3	1.88	0.54
1:D:56:VAL:HG21	1:D:87:LEU:HD12	1.89	0.54
1:E:51:ILE:HD11	1:E:400:VAL:HB	1.89	0.54
1:I:247:LYS:HE2	1:I:264:ARG:HD3	1.89	0.54
1:M:274:LYS:HD2	1:Q:387:VAL:HG11	1.90	0.54
1:O:347:LYS:HE2	1:R:52:ARG:HB3	1.90	0.54
1:Q:432:ILE:HD11	1:Q:576:LEU:HG	1.88	0.54
1:X:140:ASN:HD22	1:X:143:MET:HG2	1.72	0.54
1:g:60:TRP:HD1	1:g:62:GLY:H	1.55	0.54
1:h:190:ARG:HH12	1:j:560:ARG:HH12	1.56	0.54
1:D:115:ALA:HB1	1:D:126:ASP:HB3	1.90	0.54
1:M:165:ARG:HE	1:Q:560:ARG:NH1	2.05	0.54
1:W:97:VAL:HG12	1:W:99:GLN:NE2	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:134:GLU:N	1:Y:134:GLU:OE1	2.40	0.54
1:Y:177:LYS:HB2	1:Y:293:LEU:HD12	1.89	0.54
1:f:479:PRO:O	1:f:482:ILE:HG22	2.07	0.54
1:h:442:GLU:OE1	1:j:580:ILE:HG13	2.08	0.54
1:A:362:GLN:HB2	1:B:87:LEU:HD12	1.90	0.54
1:D:108:ILE:HG22	1:D:131:LYS:HB3	1.88	0.54
1:E:157:THR:HG1	1:T:60:TRP:CG	2.26	0.54
1:G:347:LYS:HE2	1:H:52:ARG:HB3	1.90	0.54
1:I:128:ASN:OD1	1:I:129:PHE:N	2.39	0.54
1:I:433:GLN:NE2	1:I:482:ILE:O	2.41	0.54
1:J:53:ARG:NH1	1:J:55:LEU:HD11	2.23	0.54
1:J:426:ALA:N	1:K:431:ASP:OD1	2.41	0.54
1:J:531:LEU:HD13	1:J:561:TYR:CE1	2.41	0.54
1:M:588:VAL:HG21	1:N:588:VAL:HG13	1.89	0.54
1:R:246:VAL:C	1:R:247:LYS:HD2	2.33	0.54
1:S:581:ALA:HA	1:T:439:LYS:NZ	2.23	0.54
1:S:588:VAL:N	1:T:589:ASN:O	2.40	0.54
1:Y:200:ARG:O	1:Y:200:ARG:HG2	2.07	0.54
1:b:593:VAL:HG21	1:d:589:ASN:HB2	1.89	0.54
1:e:211:PHE:HB3	1:e:248:VAL:HB	1.90	0.54
1:f:208:GLN:HA	1:f:208:GLN:HE21	1.73	0.54
1:h:364:MET:HE3	1:h:365:ARG:NH2	2.23	0.54
1:h:520:GLU:OE1	1:h:524:HIS:ND1	2.35	0.54
1:i:240:TYR:HD2	1:i:273:ASP:HA	1.72	0.54
1:i:337:ILE:HD12	1:i:355:LEU:HD22	1.90	0.54
1:B:536:GLU:HG3	1:B:556:THR:O	2.08	0.54
1:B:545:ARG:HG2	1:B:548:ARG:HH21	1.73	0.54
1:C:57:TRP:HD1	1:C:59:GLY:H	1.55	0.54
1:E:324:LYS:HE3	1:P:200:ARG:HB3	1.90	0.54
1:G:123:ASP:OD2	1:G:149:SER:N	2.35	0.54
1:M:580:ILE:HG21	1:N:442:GLU:HG3	1.90	0.54
1:N:249:ASP:OD1	1:N:250:GLY:N	2.41	0.54
1:P:105:GLU:OE1	1:P:106:GLN:NE2	2.41	0.54
1:Q:101:GLY:N	1:Q:104:ASP:OD1	2.40	0.54
1:U:440:ILE:HG23	1:U:513:MET:HE1	1.88	0.54
1:U:484:ILE:HG22	1:U:487:ASP:H	1.73	0.54
1:W:422:ASN:HD21	1:W:428:LYS:HA	1.72	0.54
1:g:36:ARG:HH12	1:g:527:GLN:NE2	2.06	0.54
1:B:98:ILE:HG12	1:B:107:PHE:HE1	1.73	0.54
1:B:341:ALA:HA	1:B:551:ARG:HG2	1.88	0.54
1:D:349:TYR:HB3	1:D:350:PRO:HD2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:310:ASN:OD1	1:i:549:ILE:N	2.34	0.54
1:K:60:TRP:CE2	1:R:158:PHE:HB3	2.43	0.54
1:M:445:TYR:CE1	1:M:495:TYR:HE2	2.26	0.54
1:R:177:LYS:NZ	1:R:291:SER:O	2.36	0.54
1:U:474:THR:HB	1:U:511:ILE:HG22	1.90	0.54
1:U:593:VAL:O	1:U:594:THR:HG23	2.08	0.54
1:X:414:ILE:HD11	1:X:435:LEU:HG	1.90	0.54
1:Y:162:LEU:HD12	1:Y:254:VAL:HA	1.90	0.54
1:Z:383:LEU:HD13	1:Z:389:HIS:HD2	1.71	0.54
1:a:86:THR:HG23	1:a:87:LEU:HD22	1.88	0.54
1:a:91:SER:HA	1:a:120:GLN:HE21	1.72	0.54
1:b:420:LEU:O	1:d:583:ARG:NH1	2.37	0.54
1:e:168:LEU:HD21	1:e:209:LEU:HD11	1.90	0.54
1:C:425:SER:OG	1:C:583:ARG:HB3	2.08	0.53
1:D:375:ARG:HD2	1:D:563:ASN:CG	2.33	0.53
1:M:493:ILE:HG13	1:Q:480:GLN:NE2	2.23	0.53
1:Q:552:GLU:OE1	1:Q:554:ARG:NH2	2.37	0.53
1:U:205:ARG:HB3	1:U:254:VAL:HG22	1.88	0.53
1:V:208:GLN:HG2	1:V:251:GLU:HG3	1.90	0.53
1:V:345:ASP:OD2	1:V:348:THR:OG1	2.27	0.53
1:W:57:TRP:CH2	1:W:60:TRP:HA	2.43	0.53
1:c:543:MET:HG3	1:c:545:ARG:HH21	1.73	0.53
1:e:140:ASN:ND2	1:e:143:MET:H	2.07	0.53
1:i:209:LEU:HD11	1:i:211:PHE:HB2	1.89	0.53
1:A:433:GLN:HB3	1:A:484:ILE:HG12	1.91	0.53
1:D:361:ILE:HG21	1:E:77:ILE:CG2	2.38	0.53
1:E:94:LEU:HD22	1:E:145:ALA:HB1	1.90	0.53
1:J:273:ASP:OD1	1:J:277:LYS:N	2.40	0.53
1:N:241:ARG:HD2	1:N:272:PHE:HB2	1.90	0.53
1:N:504:ASP:OD1	1:N:505:LEU:N	2.41	0.53
1:U:105:GLU:O	1:U:131:LYS:NZ	2.38	0.53
1:X:454:THR:HA	1:X:457:LEU:HD12	1.90	0.53
1:e:90:ASN:O	1:e:120:GLN:NE2	2.41	0.53
1:h:94:LEU:HD11	1:h:306:LEU:HB2	1.90	0.53
1:i:417:LEU:HD21	1:i:578:GLU:HB3	1.90	0.53
1:B:398:GLU:OE2	1:B:563:ASN:N	2.39	0.53
1:D:402:GLN:H	1:D:402:GLN:CD	2.16	0.53
1:G:541:PHE:CE2	1:G:543:MET:HB2	2.43	0.53
1:H:397:LEU:O	1:I:192:GLN:NE2	2.41	0.53
1:K:324:LYS:CE	1:R:200:ARG:HB2	2.37	0.53
1:K:341:ALA:HA	1:K:344:GLU:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:172:LEU:HD21	1:O:183:LEU:HD22	1.90	0.53
1:R:203:ASN:HB3	1:R:206:LEU:HD23	1.88	0.53
1:T:246:VAL:HG12	1:T:266:LEU:HD13	1.90	0.53
1:h:172:LEU:HD11	1:h:183:LEU:HB3	1.90	0.53
1:B:98:ILE:HG12	1:B:107:PHE:CE1	2.44	0.53
1:C:290:LEU:HD23	1:C:293:LEU:HD13	1.90	0.53
1:C:374:ASN:HA	1:C:377:ASP:OD2	2.08	0.53
1:E:433:GLN:HG2	1:E:481:TYR:HA	1.90	0.53
1:J:99:GLN:H	1:J:103:ASN:HD21	1.57	0.53
1:K:52:ARG:HB3	1:K:322:VAL:HG12	1.90	0.53
1:Q:156:MET:HE3	1:S:66:SER:O	2.08	0.53
1:Q:339:LYS:HD2	1:Q:349:TYR:CD1	2.43	0.53
1:V:335:LEU:HG	1:W:316:LEU:HB2	1.90	0.53
1:Z:541:PHE:CE2	1:Z:543:MET:HB2	2.43	0.53
1:Z:554:ARG:NH1	1:a:311:GLN:O	2.41	0.53
1:a:199:THR:O	1:h:324:LYS:NZ	2.42	0.53
1:b:169:LYS:HA	1:b:189:ASN:HB2	1.90	0.53
1:A:203:ASN:OD1	1:A:204:PHE:N	2.39	0.53
1:A:359:TYR:HE1	1:A:557:PRO:HB3	1.72	0.53
1:A:548:ARG:HH12	1:e:312:LEU:HD11	1.73	0.53
1:I:469:HIS:CD2	1:I:496:ASP:HB2	2.44	0.53
1:J:210:LYS:HD3	1:J:212:HIS:HE1	1.74	0.53
1:K:57:TRP:HH2	1:K:60:TRP:CD1	2.23	0.53
1:L:218:GLY:HA2	1:L:241:ARG:HD2	1.88	0.53
1:L:337:ILE:HD12	1:L:338:VAL:H	1.74	0.53
1:S:51:ILE:HD11	1:S:403:TYR:CD2	2.43	0.53
1:Y:62:GLY:O	1:Y:67:GLY:HA2	2.08	0.53
1:b:375:ARG:HD3	1:b:563:ASN:HD22	1.73	0.53
1:A:586:LEU:HD11	1:B:419:ASP:HA	1.90	0.53
1:C:377:ASP:HA	1:C:380:LYS:HG2	1.91	0.53
1:E:437:VAL:HA	1:E:440:ILE:HG22	1.89	0.53
1:G:383:LEU:HD22	1:G:389:HIS:CD2	2.44	0.53
1:J:540:ASP:OD1	1:J:553:ILE:HG13	2.08	0.53
1:L:68:GLU:C	1:L:69:LYS:HD2	2.34	0.53
1:L:75:ARG:NH2	1:L:86:THR:HA	2.23	0.53
1:T:546:ASN:O	1:T:547:GLN:HG2	2.08	0.53
1:V:443:MET:HG3	1:V:571:ILE:HD11	1.89	0.53
1:Z:28:HIS:HB3	1:Z:364:MET:HG2	1.91	0.53
1:Z:169:LYS:HG2	1:Z:170:GLN:HG3	1.89	0.53
1:b:470:VAL:HG21	1:b:491:VAL:HG11	1.91	0.53
1:e:245:ASP:OD1	1:e:267:ARG:NH2	2.30	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:422:ASN:ND2	1:e:584:THR:OG1	2.34	0.53
1:h:169:LYS:HA	1:h:169:LYS:HE2	1.91	0.53
1:A:339:LYS:NZ	1:A:340:PRO:O	2.26	0.53
1:B:75:ARG:HD2	1:B:76:ASN:N	2.24	0.53
1:E:57:TRP:HB3	1:E:317:LEU:HB2	1.91	0.53
1:I:191:ASP:OD1	1:I:192:GLN:NE2	2.41	0.53
1:K:247:LYS:HE2	1:K:264:ARG:HE	1.73	0.53
1:L:370:THR:OG1	1:L:506:ARG:NH1	2.40	0.53
1:N:543:MET:SD	1:N:545:ARG:HB2	2.48	0.53
1:P:65:LEU:HB3	1:T:99:GLN:HE22	1.73	0.53
1:P:172:LEU:HD11	1:P:183:LEU:HB3	1.90	0.53
1:Q:336:VAL:HG12	1:Q:554:ARG:HA	1.90	0.53
1:R:308:ASN:O	1:R:311:GLN:NE2	2.42	0.53
1:S:28:HIS:N	1:S:364:MET:HE3	2.24	0.53
1:T:365:ARG:NH2	1:U:81:LEU:HA	2.22	0.53
1:U:78:LEU:HA	1:U:81:LEU:HD23	1.91	0.53
1:U:363:GLN:O	1:U:561:TYR:OH	2.27	0.53
1:W:28:HIS:N	1:W:364:MET:HG2	2.24	0.53
1:X:28:HIS:HE1	1:X:30:PHE:HB3	1.72	0.53
1:c:223:THR:HG23	1:c:225:ALA:H	1.74	0.53
1:d:235:LEU:HD11	1:d:286:VAL:HA	1.91	0.53
1:d:365:ARG:HH12	1:d:503:SER:HB2	1.74	0.53
1:f:388:PRO:HG3	1:f:450:LEU:HD22	1.90	0.53
1:h:66:SER:HB3	1:h:68:GLU:HG3	1.90	0.53
1:A:139:PHE:HB2	1:A:144:LEU:HD12	1.91	0.53
1:A:588:VAL:HG13	1:B:418:ASN:HD22	1.74	0.53
1:E:247:LYS:HB2	1:E:265:ALA:HB3	1.90	0.53
1:J:310:ASN:ND2	1:i:548:ARG:HD2	2.24	0.53
1:J:383:LEU:HD22	1:J:389:HIS:CD2	2.44	0.53
1:P:380:LYS:HZ3	1:P:409:TYR:HE2	1.56	0.53
1:U:67:GLY:HA3	1:Y:106:GLN:NE2	2.23	0.53
1:Y:586:LEU:HB3	1:Y:588:VAL:HG13	1.90	0.53
1:c:439:LYS:NZ	1:c:443:MET:HE3	2.24	0.53
1:e:169:LYS:HD2	1:e:303:GLU:HB2	1.91	0.53
1:e:590:GLU:O	1:f:593:VAL:HB	2.09	0.53
1:i:263:LEU:HD13	1:i:297:GLY:HA3	1.89	0.53
1:j:91:SER:HA	1:j:120:GLN:HE21	1.74	0.53
1:A:391:ILE:HG22	1:A:392:GLU:CD	2.34	0.53
1:E:548:ARG:HH22	1:K:157:THR:HG23	1.73	0.53
1:I:98:ILE:HG21	1:I:126:ASP:HB2	1.91	0.53
1:J:383:LEU:HD21	1:J:394:ASN:ND2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:506:ARG:HD2	1:K:84:TYR:CD1	2.44	0.53
1:L:337:ILE:HD12	1:L:338:VAL:N	2.24	0.53
1:O:552:GLU:HB3	1:O:554:ARG:HH21	1.74	0.53
1:T:58:GLU:HG2	1:T:316:LEU:HD22	1.90	0.53
1:V:177:LYS:HD2	1:V:293:LEU:HD13	1.91	0.53
1:X:310:ASN:ND2	1:b:549:ILE:H	2.07	0.53
1:Z:60:TRP:CD2	1:i:158:PHE:HA	2.44	0.53
1:d:337:ILE:HG12	1:d:349:TYR:CE1	2.43	0.53
1:e:246:VAL:HG13	1:e:266:LEU:HD21	1.89	0.53
1:e:433:GLN:NE2	1:e:483:GLN:O	2.34	0.53
1:A:193:TYR:OH	1:P:202:TYR:HA	2.09	0.53
1:C:322:VAL:HB	1:Z:204:PHE:CD1	2.44	0.53
1:G:513:MET:HE3	1:G:571:ILE:HD13	1.89	0.53
1:N:212:HIS:CE1	1:N:264:ARG:HH22	2.27	0.53
1:O:49:LEU:HD21	1:O:523:PRO:HB2	1.91	0.53
1:R:83:ASP:CG	1:R:84:TYR:H	2.16	0.53
1:V:363:GLN:HE22	1:V:531:LEU:HD21	1.74	0.53
1:Y:32:GLU:OE2	1:Y:36:ARG:NH1	2.41	0.53
1:h:382:TYR:HD2	1:h:397:LEU:HD13	1.74	0.53
1:i:219:GLU:HA	1:i:236:PHE:CE2	2.43	0.53
1:A:212:HIS:HE1	1:A:247:LYS:HE3	1.73	0.52
1:B:139:PHE:CE2	1:B:141:LEU:HB2	2.44	0.52
1:C:210:LYS:NZ	1:e:202:TYR:HB2	2.24	0.52
1:D:94:LEU:HB2	1:D:304:ALA:HB3	1.91	0.52
1:D:332:LEU:HB2	1:D:557:PRO:HG2	1.89	0.52
1:E:437:VAL:HG11	1:E:484:ILE:HD11	1.90	0.52
1:G:51:ILE:HD11	1:G:403:TYR:CD2	2.43	0.52
1:G:196:TYR:HB3	1:G:207:MET:HB3	1.91	0.52
1:K:390:PRO:HA	1:K:406:ARG:HD2	1.91	0.52
1:R:67:GLY:O	1:R:68:GLU:HG3	2.10	0.52
1:T:114:PRO:O	1:T:116:GLN:NE2	2.42	0.52
1:X:536:GLU:HG3	1:X:557:PRO:HA	1.89	0.52
1:e:538:LEU:HD23	1:e:538:LEU:H	1.74	0.52
1:g:113:LEU:HD12	1:g:114:PRO:HD2	1.91	0.52
1:h:436:ILE:O	1:h:440:ILE:HG12	2.09	0.52
1:A:437:VAL:HG21	1:A:484:ILE:HG13	1.92	0.52
1:A:534:ILE:HB	1:A:558:ARG:HG3	1.91	0.52
1:B:331:THR:N	1:C:305:ARG:HH22	2.06	0.52
1:G:105:GLU:HG3	1:G:106:GLN:OE1	2.09	0.52
1:G:367:ASN:HD22	1:G:559:TYR:HE2	1.57	0.52
1:G:380:LYS:HE3	1:G:409:TYR:HE2	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:308:ASN:HD21	1:H:312:LEU:HD13	1.73	0.52
1:H:379:LEU:HD22	1:H:383:LEU:HD12	1.90	0.52
1:K:342:MET:SD	1:K:343:VAL:HG23	2.49	0.52
1:P:113:LEU:HD12	1:P:183:LEU:HD13	1.91	0.52
1:P:359:TYR:CE1	1:P:557:PRO:HB3	2.44	0.52
1:Q:51:ILE:HG21	1:Q:403:TYR:CD2	2.45	0.52
1:R:48:GLN:NE2	1:R:324:LYS:HB2	2.22	0.52
1:T:469:HIS:CG	1:T:518:PRO:HG3	2.44	0.52
1:U:592:GLN:HG2	1:X:593:VAL:HG12	1.92	0.52
1:g:513:MET:HB2	1:g:569:LEU:HB2	1.91	0.52
1:h:318:ILE:HB	1:j:337:ILE:HD12	1.91	0.52
1:A:252:MET:HA	1:A:259:GLY:HA2	1.91	0.52
1:D:560:ARG:HH21	1:E:165:ARG:HH22	1.54	0.52
1:E:91:SER:HA	1:E:120:GLN:NE2	2.24	0.52
1:E:172:LEU:HD11	1:E:183:LEU:HB3	1.91	0.52
1:H:347:LYS:HD2	1:I:52:ARG:HH22	1.73	0.52
1:I:215:LEU:N	1:I:244:LEU:O	2.36	0.52
1:J:565:LEU:HD12	1:J:566:PRO:HD2	1.90	0.52
1:K:143:MET:HA	1:K:143:MET:HE3	1.90	0.52
1:U:240:TYR:HD2	1:U:273:ASP:HA	1.74	0.52
1:V:45:ALA:HB1	1:V:328:MET:HE1	1.91	0.52
1:W:97:VAL:HG22	1:W:125:PHE:CE2	2.45	0.52
1:W:464:ARG:HE	1:W:465:SER:H	1.56	0.52
1:a:65:LEU:O	1:a:65:LEU:HD23	2.10	0.52
1:i:52:ARG:H	1:i:52:ARG:HD3	1.75	0.52
1:D:158:PHE:CE2	1:Y:61:THR:HB	2.45	0.52
1:E:157:THR:HG23	1:E:158:PHE:N	2.24	0.52
1:H:79:GLN:HB2	1:H:391:ILE:HD12	1.91	0.52
1:J:471:ALA:HB2	1:J:516:ILE:HD13	1.91	0.52
1:K:439:LYS:HA	1:K:439:LYS:HE2	1.91	0.52
1:O:430:THR:O	1:O:433:GLN:HG3	2.08	0.52
1:R:163:ASP:OD1	1:R:164:SER:N	2.41	0.52
1:T:153:LYS:HE3	1:T:312:LEU:HD22	1.90	0.52
1:f:256:ASN:ND2	1:f:258:ASN:OD1	2.42	0.52
1:i:444:VAL:HG22	1:i:513:MET:HE3	1.91	0.52
1:j:240:TYR:HD1	1:j:273:ASP:HA	1.75	0.52
1:H:331:THR:HG22	1:H:558:ARG:HD3	1.90	0.52
1:I:191:ASP:OD1	1:I:192:GLN:N	2.41	0.52
1:I:592:GLN:NE2	1:L:594:THR:HA	2.24	0.52
1:J:200:ARG:NH1	1:J:202:TYR:O	2.42	0.52
1:J:480:GLN:HG3	1:K:445:TYR:CE1	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:429:GLN:O	1:K:432:ILE:HG13	2.10	0.52
1:L:549:ILE:HG13	1:L:549:ILE:O	2.09	0.52
1:S:177:LYS:HB3	1:S:231:LEU:HD22	1.90	0.52
1:S:484:ILE:HD12	1:T:489:ARG:HH21	1.74	0.52
1:U:383:LEU:HD21	1:U:407:PRO:HB2	1.91	0.52
1:V:417:LEU:HD22	1:V:579:ALA:HB2	1.90	0.52
1:W:337:ILE:HG23	1:W:339:LYS:NZ	2.24	0.52
1:b:416:VAL:HG11	1:b:576:LEU:HA	1.91	0.52
1:d:95:ILE:HD13	1:d:120:GLN:HG3	1.89	0.52
1:i:32:GLU:OE2	1:i:37:THR:OG1	2.25	0.52
1:i:414:ILE:HD11	1:i:439:LYS:HG2	1.89	0.52
1:j:184:PHE:HZ	1:j:229:SER:HB2	1.74	0.52
1:A:83:ASP:OD1	1:A:84:TYR:N	2.42	0.52
1:E:78:LEU:HA	1:E:81:LEU:HD23	1.92	0.52
1:G:554:ARG:HH22	1:H:311:GLN:HE22	1.57	0.52
1:J:53:ARG:HH21	1:J:323:GLN:HG2	1.75	0.52
1:M:476:MET:HE1	1:M:501:ARG:HD3	1.91	0.52
1:P:391:ILE:HG22	1:P:392:GLU:HG3	1.91	0.52
1:Q:134:GLU:OE1	1:Q:134:GLU:N	2.42	0.52
1:Q:504:ASP:OD1	1:Q:505:LEU:N	2.42	0.52
1:T:153:LYS:HG2	1:T:312:LEU:HD13	1.92	0.52
1:T:489:ARG:HH11	1:T:492:GLY:HA2	1.74	0.52
1:V:491:VAL:HG21	1:V:497:TYR:HB3	1.92	0.52
1:a:310:ASN:OD1	1:j:548:ARG:NH1	2.43	0.52
1:a:478:LEU:O	1:a:481:TYR:N	2.42	0.52
1:b:232:LEU:HB2	1:b:236:PHE:HE2	1.74	0.52
1:c:543:MET:HA	1:c:543:MET:HE3	1.92	0.52
1:i:479:PRO:HG2	1:i:501:ARG:HH11	1.75	0.52
1:A:359:TYR:HE2	1:A:360:ARG:HH21	1.57	0.52
1:B:365:ARG:NH2	1:C:80:GLY:O	2.42	0.52
1:I:547:GLN:OE1	1:f:153:LYS:HD2	2.10	0.52
1:L:79:GLN:HB2	1:L:391:ILE:HB	1.91	0.52
1:Q:308:ASN:HD21	1:Q:312:LEU:HG	1.75	0.52
1:S:308:ASN:ND2	1:S:312:LEU:H	2.06	0.52
1:T:594:THR:O	1:T:596:ALA:N	2.42	0.52
1:U:153:LYS:HD2	1:U:312:LEU:HB3	1.92	0.52
1:X:212:HIS:CD2	1:X:247:LYS:HD3	2.45	0.52
1:Z:375:ARG:HD3	1:Z:563:ASN:HD22	1.75	0.52
1:b:418:ASN:HA	1:d:583:ARG:HH22	1.75	0.52
1:f:496:ASP:OD1	1:f:497:TYR:N	2.43	0.52
1:f:587:ASP:HB3	1:g:591:THR:HG21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:i:235:LEU:HD23	1:i:242:ILE:HD11	1.92	0.52
1:B:560:ARG:HH11	1:C:165:ARG:HH12	1.58	0.52
1:C:238:LEU:O	1:C:274:LYS:NZ	2.31	0.52
1:D:433:GLN:HE21	1:D:484:ILE:HA	1.75	0.52
1:J:200:ARG:HH21	1:e:324:LYS:N	2.08	0.52
1:L:422:ASN:OD1	1:L:428:LYS:NZ	2.43	0.52
1:N:590:GLU:O	1:O:593:VAL:HG21	2.10	0.52
1:O:433:GLN:O	1:O:437:VAL:HG22	2.09	0.52
1:R:402:GLN:HB3	1:R:566:PRO:HG3	1.92	0.52
1:d:428:LYS:HZ3	1:d:580:ILE:HG13	1.75	0.52
1:e:205:ARG:HH21	1:e:255:GLU:HG2	1.75	0.52
1:g:60:TRP:CD1	1:g:63:GLU:HG3	2.44	0.52
1:A:363:GLN:HE21	1:A:559:TYR:HE1	1.58	0.52
1:T:228:GLU:OE1	1:T:233:LYS:NZ	2.43	0.52
1:T:247:LYS:HB2	1:T:265:ALA:HB3	1.92	0.52
1:T:359:TYR:HE1	1:T:557:PRO:HB3	1.74	0.52
1:W:163:ASP:OD1	1:W:164:SER:N	2.40	0.52
1:W:583:ARG:HE	1:W:585:ALA:HB2	1.74	0.52
1:Y:363:GLN:HG2	1:Y:559:TYR:CZ	2.45	0.52
1:g:477:ARG:HH22	1:g:576:LEU:HD23	1.75	0.52
1:h:58:GLU:HG3	1:h:122:LYS:NZ	2.25	0.52
1:A:196:TYR:CZ	1:A:209:LEU:HB2	2.45	0.52
1:A:215:LEU:HD12	1:A:246:VAL:HG21	1.90	0.52
1:A:310:ASN:OD1	1:O:548:ARG:HA	2.10	0.52
1:A:317:LEU:HD23	1:E:336:VAL:HG13	1.92	0.52
1:G:339:LYS:HE2	1:G:349:TYR:HD2	1.75	0.52
1:I:169:LYS:HD2	1:I:303:GLU:HB2	1.92	0.52
1:J:328:MET:SD	1:K:165:ARG:HD2	2.50	0.52
1:J:329:ILE:HD13	1:J:534:ILE:HD11	1.92	0.52
1:J:346:ASP:HA	1:J:351:ARG:NH2	2.21	0.52
1:L:160:ASP:HB3	1:L:306:LEU:HD11	1.92	0.52
1:M:531:LEU:HD13	1:M:561:TYR:CE1	2.45	0.52
1:O:538:LEU:HD23	1:O:538:LEU:H	1.75	0.52
1:P:481:TYR:OH	1:Q:442:GLU:OE1	2.26	0.52
1:P:545:ARG:HH11	1:Q:153:LYS:NZ	2.08	0.52
1:Q:267:ARG:NH2	1:T:137:GLU:HG3	2.25	0.52
1:W:72:ILE:HG22	1:W:74:LYS:HD3	1.92	0.52
1:j:308:ASN:HD21	1:j:312:LEU:HG	1.75	0.52
1:j:443:MET:HE3	1:j:443:MET:HA	1.91	0.52
1:I:53:ARG:HH12	1:I:323:GLN:HG3	1.74	0.51
1:L:57:TRP:CH2	1:L:60:TRP:HD1	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:467:LYS:HG2	1:L:468:PRO:HD2	1.92	0.51
1:M:448:ASP:OD2	1:M:495:TYR:OH	2.28	0.51
1:N:586:LEU:O	1:O:589:ASN:HB2	2.10	0.51
1:P:207:MET:HG2	1:P:254:VAL:HG13	1.92	0.51
1:P:331:THR:HA	1:P:558:ARG:HG2	1.93	0.51
1:P:426:ALA:HB2	1:Q:431:ASP:HA	1.92	0.51
1:S:196:TYR:HE2	1:S:209:LEU:HD22	1.76	0.51
1:U:71:GLU:OE1	1:Y:256:ASN:ND2	2.42	0.51
1:a:308:ASN:OD1	1:a:309:ILE:N	2.43	0.51
1:b:593:VAL:CG2	1:d:589:ASN:HB2	2.40	0.51
1:e:345:ASP:OD1	1:e:346:ASP:N	2.39	0.51
1:f:97:VAL:HG22	1:f:125:PHE:CD1	2.45	0.51
1:h:346:ASP:OD1	1:h:347:LYS:N	2.42	0.51
1:A:580:ILE:HG23	1:B:442:GLU:OE1	2.11	0.51
1:C:245:ASP:OD2	1:C:247:LYS:HE3	2.10	0.51
1:E:63:GLU:HG3	1:P:155:SER:HB2	1.92	0.51
1:I:166:ILE:HD12	1:I:252:MET:HE2	1.91	0.51
1:I:196:TYR:CE2	1:I:209:LEU:HB2	2.44	0.51
1:N:246:VAL:HG12	1:N:266:LEU:HD13	1.91	0.51
1:O:290:LEU:HA	1:O:293:LEU:HD12	1.92	0.51
1:Q:249:ASP:OD1	1:Q:250:GLY:N	2.43	0.51
1:S:470:VAL:HG21	1:S:491:VAL:HG11	1.92	0.51
1:U:585:ALA:O	1:X:589:ASN:ND2	2.42	0.51
1:X:270:ARG:HD3	1:X:278:GLU:HG2	1.91	0.51
1:Y:215:LEU:HD12	1:Y:246:VAL:HG21	1.92	0.51
1:Z:331:THR:HG22	1:a:163:ASP:OD2	2.10	0.51
1:c:365:ARG:HG3	1:c:502:ILE:HD11	1.93	0.51
1:e:246:VAL:HG12	1:e:248:VAL:HG23	1.93	0.51
1:f:75:ARG:NH2	1:f:86:THR:O	2.44	0.51
1:g:560:ARG:CZ	1:j:165:ARG:HH12	2.23	0.51
1:A:314:MET:SD	1:E:336:VAL:HG11	2.50	0.51
1:A:478:LEU:O	1:A:480:GLN:N	2.43	0.51
1:I:586:LEU:O	1:I:588:VAL:HG13	2.11	0.51
1:J:402:GLN:OE1	1:J:402:GLN:N	2.33	0.51
1:J:583:ARG:NE	1:K:420:LEU:O	2.43	0.51
1:M:37:THR:HA	1:M:531:LEU:HB3	1.91	0.51
1:O:391:ILE:HG22	1:O:392:GLU:HG2	1.92	0.51
1:Q:247:LYS:HG2	1:Q:265:ALA:HB3	1.92	0.51
1:T:109:ASP:O	1:T:111:SER:N	2.39	0.51
1:T:420:LEU:HD11	1:T:431:ASP:OD2	2.10	0.51
1:U:477:ARG:HH22	1:U:576:LEU:HD23	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:153:LYS:NZ	1:X:545:ARG:HD3	2.26	0.51
1:V:275:GLU:HG2	1:V:277:LYS:HD3	1.92	0.51
1:Y:166:ILE:HG13	1:Y:196:TYR:CD1	2.45	0.51
1:a:264:ARG:HD3	1:i:262:SER:OG	2.10	0.51
1:g:560:ARG:HH21	1:g:562:PHE:HE1	1.58	0.51
1:i:303:GLU:OE2	1:i:305:ARG:NH1	2.42	0.51
1:C:80:GLY:HA2	1:C:86:THR:HG21	1.92	0.51
1:H:478:LEU:N	1:H:479:PRO:HD2	2.25	0.51
1:I:440:ILE:HG12	1:I:513:MET:HE1	1.93	0.51
1:K:57:TRP:NE1	1:K:319:ASP:OD1	2.36	0.51
1:M:591:THR:HA	1:N:593:VAL:CG1	2.39	0.51
1:N:465:SER:HB2	1:N:467:LYS:NZ	2.25	0.51
1:R:423:LEU:HD11	1:R:586:LEU:HD11	1.93	0.51
1:S:219:GLU:HG3	1:S:236:PHE:HB3	1.91	0.51
1:T:119:LYS:HE2	1:T:124:THR:HG23	1.93	0.51
1:T:243:GLU:HB2	1:T:270:ARG:HG3	1.92	0.51
1:W:342:MET:SD	1:W:343:VAL:HG13	2.50	0.51
1:a:217:LEU:HD12	1:a:242:ILE:HD11	1.92	0.51
1:a:308:ASN:O	1:a:311:GLN:NE2	2.43	0.51
1:a:578:GLU:O	1:a:582:GLN:N	2.44	0.51
1:e:414:ILE:HD11	1:e:439:LYS:HG2	1.92	0.51
1:e:513:MET:HE1	1:e:571:ILE:HG12	1.92	0.51
1:h:147:THR:HG22	1:h:150:ARG:HG2	1.91	0.51
1:h:350:PRO:HG3	1:i:320:SER:HB3	1.91	0.51
1:j:376:ALA:HA	1:j:568:MET:HE1	1.92	0.51
1:j:488:ASP:H	1:j:489:ARG:NH1	2.08	0.51
1:C:215:LEU:N	1:C:244:LEU:O	2.43	0.51
1:H:186:LEU:HD23	1:H:215:LEU:HD13	1.92	0.51
1:M:169:LYS:HG3	1:M:170:GLN:OE1	2.11	0.51
1:N:60:TRP:N	1:N:68:GLU:OE2	2.44	0.51
1:U:249:ASP:OD1	1:U:250:GLY:N	2.43	0.51
1:U:290:LEU:HA	1:U:293:LEU:HD23	1.93	0.51
1:W:332:LEU:HB2	1:W:557:PRO:HG2	1.92	0.51
1:Z:52:ARG:HA	1:Z:322:VAL:HG12	1.91	0.51
1:Z:395:LEU:O	1:a:192:GLN:NE2	2.44	0.51
1:a:491:VAL:HG21	1:a:497:TYR:HB3	1.93	0.51
1:d:410:ASN:OD1	1:d:411:GLU:N	2.43	0.51
1:e:478:LEU:HD13	1:e:511:ILE:HD11	1.92	0.51
1:g:410:ASN:OD1	1:g:411:GLU:N	2.44	0.51
1:g:594:THR:O	1:g:596:ALA:N	2.42	0.51
1:h:68:GLU:C	1:h:69:LYS:HD3	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:587:ASP:HB3	1:i:591:THR:HG21	1.91	0.51
1:M:398:GLU:N	1:M:398:GLU:OE1	2.41	0.51
1:R:199:THR:HB	1:R:208:GLN:CD	2.35	0.51
1:X:364:MET:HG2	1:X:365:ARG:HH12	1.76	0.51
1:Y:348:THR:O	1:Z:320:SER:OG	2.21	0.51
1:a:202:TYR:HD2	1:a:206:LEU:HD22	1.76	0.51
1:a:308:ASN:HD21	1:a:312:LEU:HG	1.75	0.51
1:h:52:ARG:NH2	1:j:346:ASP:O	2.43	0.51
1:i:97:VAL:HG22	1:i:125:PHE:CE2	2.46	0.51
1:M:589:ASN:O	1:M:591:THR:HG23	2.10	0.51
1:O:338:VAL:HG21	1:R:60:TRP:CZ2	2.46	0.51
1:R:513:MET:SD	1:R:569:LEU:HB2	2.50	0.51
1:T:414:ILE:HD11	1:T:439:LYS:HG3	1.93	0.51
1:b:163:ASP:HA	1:b:307:THR:OG1	2.09	0.51
1:b:275:GLU:OE2	1:b:277:LYS:HG2	2.10	0.51
1:b:428:LYS:NZ	1:b:580:ILE:HA	2.25	0.51
1:c:264:ARG:HH11	1:c:264:ARG:HG3	1.75	0.51
1:i:240:TYR:CD2	1:i:273:ASP:HA	2.44	0.51
1:A:57:TRP:CZ2	1:A:59:GLY:HA2	2.46	0.51
1:D:542:ASN:HA	1:D:551:ARG:NH2	2.25	0.51
1:H:548:ARG:NH2	1:I:63:GLU:O	2.40	0.51
1:J:311:GLN:HE22	1:i:549:ILE:HG21	1.75	0.51
1:J:591:THR:N	1:L:588:VAL:O	2.37	0.51
1:J:592:GLN:NE2	1:K:594:THR:HA	2.26	0.51
1:K:433:GLN:HA	1:K:436:ILE:HG22	1.93	0.51
1:M:235:LEU:HD21	1:M:242:ILE:HG23	1.91	0.51
1:O:524:HIS:HD2	1:O:525:PRO:HD2	1.75	0.51
1:S:128:ASN:OD1	1:S:129:PHE:N	2.44	0.51
1:T:428:LYS:O	1:T:432:ILE:HG13	2.11	0.51
1:U:149:SER:HA	1:U:152:LYS:HZ1	1.74	0.51
1:V:442:GLU:OE1	1:X:577:GLU:HA	2.10	0.51
1:Z:592:GLN:OE1	1:Z:597:SER:OG	2.21	0.51
1:e:330:PRO:HG3	1:f:165:ARG:NH2	2.26	0.51
1:g:60:TRP:NE1	1:g:63:GLU:HG3	2.26	0.51
1:g:534:ILE:HB	1:g:558:ARG:HB2	1.92	0.51
1:i:235:LEU:HD11	1:i:240:TYR:HD1	1.75	0.51
1:j:367:ASN:HB3	1:j:561:TYR:HE2	1.76	0.51
1:C:362:GLN:HG3	1:D:87:LEU:HD22	1.93	0.51
1:J:61:THR:HG23	1:J:70:GLN:NE2	2.26	0.51
1:N:219:GLU:OE1	1:N:239:GLY:HA2	2.11	0.51
1:P:102:GLU:OE1	1:P:102:GLU:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:191:ASP:HB3	1:R:194:ALA:HB2	1.92	0.51
1:S:106:GLN:OE1	1:S:139:PHE:HB3	2.11	0.51
1:V:416:VAL:HG21	1:V:576:LEU:HD13	1.93	0.51
1:W:166:ILE:HB	1:W:196:TYR:HD1	1.76	0.51
1:Y:473:GLY:HA2	1:Y:500:ALA:HB3	1.92	0.51
1:Z:196:TYR:CE2	1:Z:209:LEU:HB2	2.46	0.51
1:a:233:LYS:NZ	1:a:237:ASP:OD1	2.42	0.51
1:b:98:ILE:HG22	1:b:107:PHE:CE2	2.46	0.51
1:b:318:ILE:H	1:d:337:ILE:HD13	1.76	0.51
1:b:541:PHE:CZ	1:b:543:MET:HB2	2.46	0.51
1:b:554:ARG:NH2	1:c:313:GLU:O	2.41	0.51
1:e:330:PRO:HB3	1:f:165:ARG:HE	1.76	0.51
1:g:172:LEU:HD11	1:g:183:LEU:HB3	1.92	0.51
1:g:420:LEU:HD11	1:g:431:ASP:HB3	1.93	0.51
1:C:169:LYS:HA	1:C:189:ASN:HB2	1.92	0.51
1:E:54:ASN:OD1	1:E:77:ILE:HG13	2.11	0.51
1:L:376:ALA:HA	1:L:568:MET:HE1	1.92	0.51
1:L:524:HIS:HE1	1:L:526:LEU:HD23	1.76	0.51
1:M:429:GLN:HE22	1:M:481:TYR:HE1	1.59	0.51
1:M:565:LEU:HG	1:M:567:ILE:HG22	1.91	0.51
1:N:239:GLY:HA3	1:N:274:LYS:HZ2	1.73	0.51
1:O:423:LEU:HD13	1:O:586:LEU:HD21	1.93	0.51
1:O:477:ARG:HH21	1:O:577:GLU:HG3	1.76	0.51
1:P:545:ARG:NH1	1:W:547:GLN:OE1	2.43	0.51
1:U:536:GLU:HG3	1:U:558:ARG:HG2	1.93	0.51
1:d:247:LYS:HD2	1:d:265:ALA:HB3	1.93	0.51
1:e:587:ASP:HB3	1:f:591:THR:HG21	1.93	0.51
1:g:443:MET:HA	1:g:443:MET:HE3	1.93	0.51
1:j:131:LYS:NZ	1:j:132:PHE:HB2	2.26	0.51
1:A:391:ILE:HG22	1:A:392:GLU:OE1	2.11	0.50
1:A:445:TYR:HD2	1:E:480:GLN:HB3	1.72	0.50
1:C:75:ARG:HH12	1:C:86:THR:HA	1.75	0.50
1:C:365:ARG:NH2	1:D:81:LEU:HA	2.16	0.50
1:G:337:ILE:HG22	1:G:553:ILE:HB	1.93	0.50
1:G:350:PRO:HG2	1:G:354:ALA:HB2	1.93	0.50
1:I:56:VAL:HG22	1:I:318:ILE:HG12	1.93	0.50
1:I:184:PHE:HE1	1:I:223:THR:HG22	1.76	0.50
1:O:395:LEU:HA	1:O:402:GLN:HE22	1.76	0.50
1:T:177:LYS:HB3	1:T:231:LEU:HD13	1.93	0.50
1:Y:424:THR:HB	1:Z:423:LEU:HD23	1.92	0.50
1:Z:504:ASP:OD1	1:Z:505:LEU:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:202:TYR:HD2	1:f:203:ASN:H	1.54	0.50
1:g:335:LEU:HG	1:j:316:LEU:HD12	1.92	0.50
1:g:383:LEU:HD21	1:g:397:LEU:HD11	1.92	0.50
1:h:273:ASP:OD1	1:h:277:LYS:N	2.41	0.50
1:i:469:HIS:CE1	1:i:498:THR:HG23	2.46	0.50
1:A:477:ARG:HB3	1:A:477:ARG:CZ	2.41	0.50
1:B:375:ARG:NH1	1:B:563:ASN:HB3	2.27	0.50
1:D:51:ILE:HG21	1:D:400:VAL:HG21	1.93	0.50
1:D:129:PHE:HZ	1:D:170:GLN:HB2	1.77	0.50
1:D:363:GLN:HB3	1:D:559:TYR:CE1	2.46	0.50
1:H:437:VAL:HG21	1:H:484:ILE:HD11	1.92	0.50
1:I:52:ARG:HE	1:I:320:SER:HB3	1.77	0.50
1:I:386:GLY:HA2	1:I:408:TYR:HE1	1.76	0.50
1:J:213:THR:OG1	1:J:214:SER:N	2.41	0.50
1:N:476:MET:HE1	1:N:501:ARG:HE	1.76	0.50
1:P:249:ASP:OD1	1:P:250:GLY:N	2.44	0.50
1:T:583:ARG:HD2	1:U:587:ASP:CG	2.36	0.50
1:U:55:LEU:HD13	1:U:74:LYS:HB3	1.92	0.50
1:U:76:ASN:OD1	1:U:77:ILE:N	2.45	0.50
1:V:583:ARG:HD3	1:W:587:ASP:HB2	1.93	0.50
1:W:147:THR:HG23	1:W:150:ARG:H	1.76	0.50
1:W:349:TYR:OH	1:W:352:LEU:HA	2.10	0.50
1:W:565:LEU:HB3	1:W:567:ILE:HG22	1.94	0.50
1:Y:305:ARG:NH2	1:c:330:PRO:HB2	2.26	0.50
1:Y:410:ASN:OD1	1:Y:411:GLU:N	2.44	0.50
1:Z:440:ILE:HD13	1:Z:571:ILE:HD12	1.93	0.50
1:a:575:ASN:HB3	1:a:578:GLU:OE2	2.11	0.50
1:b:423:LEU:HD21	1:c:423:LEU:HD11	1.93	0.50
1:b:472:ILE:HB	1:b:499:ILE:HG12	1.92	0.50
1:d:439:LYS:NZ	1:d:443:MET:HE3	2.26	0.50
1:d:512:VAL:O	1:d:513:MET:HE2	2.12	0.50
1:h:426:ALA:C	1:i:489:ARG:HH21	2.18	0.50
1:E:512:VAL:HG22	1:E:570:VAL:HG22	1.94	0.50
1:G:334:PRO:HB3	1:G:556:THR:HG22	1.92	0.50
1:J:37:THR:HA	1:J:531:LEU:HB3	1.94	0.50
1:N:201:GLU:CD	1:N:202:TYR:HB2	2.36	0.50
1:R:200:ARG:H	1:R:200:ARG:HD3	1.76	0.50
1:R:391:ILE:HG13	1:R:392:GLU:OE1	2.11	0.50
1:U:332:LEU:HA	1:X:305:ARG:HH21	1.75	0.50
1:W:589:ASN:O	1:W:591:THR:HG23	2.10	0.50
1:Z:186:LEU:HD13	1:Z:215:LEU:HD23	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:491:VAL:HG22	1:Z:497:TYR:HD1	1.76	0.50
1:a:132:PHE:CD2	1:a:263:LEU:HB2	2.46	0.50
1:a:369:VAL:HG23	1:a:506:ARG:HH12	1.76	0.50
1:c:36:ARG:NH2	1:c:518:PRO:HA	2.24	0.50
1:d:57:TRP:NE1	1:d:319:ASP:OD2	2.34	0.50
1:d:489:ARG:HG3	1:d:493:ILE:HG13	1.94	0.50
1:e:590:GLU:N	1:e:590:GLU:OE2	2.45	0.50
1:B:591:THR:HG23	1:C:421:ASN:HD21	1.76	0.50
1:C:436:ILE:O	1:C:440:ILE:HG12	2.11	0.50
1:E:43:ASP:OD1	1:E:44:GLN:N	2.44	0.50
1:G:544:ILE:HG12	1:G:549:ILE:HG13	1.93	0.50
1:I:116:GLN:N	1:I:116:GLN:OE1	2.44	0.50
1:J:352:LEU:HD11	1:J:538:LEU:HD22	1.93	0.50
1:K:57:TRP:CH2	1:K:60:TRP:HD1	2.23	0.50
1:K:252:MET:HE1	1:K:254:VAL:HG12	1.92	0.50
1:R:200:ARG:HG2	1:R:201:GLU:OE1	2.12	0.50
1:S:484:ILE:HG23	1:T:489:ARG:HH21	1.75	0.50
1:U:57:TRP:NE1	1:U:319:ASP:OD2	2.23	0.50
1:a:28:HIS:CE1	1:a:30:PHE:H	2.30	0.50
1:b:414:ILE:HD11	1:b:439:LYS:HG2	1.94	0.50
1:c:60:TRP:H	1:c:60:TRP:CD1	2.28	0.50
1:d:472:ILE:HA	1:d:513:MET:HE1	1.94	0.50
1:h:59:GLY:HA3	1:h:122:LYS:NZ	2.26	0.50
1:B:542:ASN:HD21	1:B:549:ILE:HG23	1.76	0.50
1:D:129:PHE:CZ	1:D:170:GLN:HB2	2.46	0.50
1:H:380:LYS:HE2	1:H:411:GLU:OE1	2.11	0.50
1:H:541:PHE:CE2	1:H:543:MET:HB2	2.47	0.50
1:K:83:ASP:OD1	1:K:85:THR:HG22	2.11	0.50
1:K:552:GLU:HB3	1:K:554:ARG:HD3	1.93	0.50
1:L:67:GLY:HA2	1:f:106:GLN:HE22	1.76	0.50
1:M:337:ILE:HD11	1:M:355:LEU:HD21	1.92	0.50
1:R:337:ILE:HB	1:R:553:ILE:HB	1.94	0.50
1:R:476:MET:O	1:R:501:ARG:NH2	2.45	0.50
1:X:364:MET:HG2	1:X:365:ARG:NH1	2.26	0.50
1:c:123:ASP:OD2	1:c:149:SER:N	2.43	0.50
1:e:247:LYS:HG2	1:e:265:ALA:HB3	1.94	0.50
1:g:260:ASP:OD2	1:g:261:THR:N	2.45	0.50
1:h:169:LYS:HG3	1:h:170:GLN:OE1	2.12	0.50
1:h:342:MET:SD	1:h:343:VAL:HG13	2.52	0.50
1:j:169:LYS:HG2	1:j:170:GLN:NE2	2.25	0.50
1:B:269:ALA:HB1	1:B:270:ARG:HE	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:443:MET:HE3	1:C:569:LEU:HB3	1.94	0.50
1:G:309:ILE:HG21	1:N:340:PRO:HB3	1.94	0.50
1:M:583:ARG:NE	1:N:421:ASN:OD1	2.40	0.50
1:N:390:PRO:O	1:N:393:SER:OG	2.22	0.50
1:O:338:VAL:HG21	1:R:60:TRP:HZ2	1.76	0.50
1:O:358:ALA:O	1:O:361:ILE:HG13	2.12	0.50
1:Q:57:TRP:CG	1:Q:74:LYS:HZ3	2.29	0.50
1:R:243:GLU:OE1	1:R:270:ARG:HB2	2.11	0.50
1:U:477:ARG:HH12	1:U:576:LEU:HD23	1.77	0.50
1:W:415:ASP:OD1	1:W:575:ASN:ND2	2.40	0.50
1:Y:547:GLN:HG3	1:i:153:LYS:HE2	1.94	0.50
1:b:361:ILE:HG13	1:b:362:GLN:N	2.27	0.50
1:e:98:ILE:HD11	1:e:128:ASN:HB2	1.94	0.50
1:e:586:LEU:HD21	1:i:423:LEU:HA	1.94	0.50
1:h:203:ASN:OD1	1:h:204:PHE:N	2.45	0.50
1:i:379:LEU:HD12	1:i:568:MET:HE3	1.94	0.50
1:A:93:GLU:HG2	1:A:305:ARG:HB3	1.94	0.50
1:A:122:LYS:HD2	1:A:122:LYS:N	2.27	0.50
1:C:305:ARG:HG2	1:C:306:LEU:H	1.77	0.50
1:C:560:ARG:HH22	1:D:165:ARG:NH2	2.09	0.50
1:D:94:LEU:HD21	1:D:306:LEU:HG	1.93	0.50
1:G:457:LEU:HD21	1:G:466:PRO:HD2	1.92	0.50
1:H:355:LEU:HD22	1:I:318:ILE:HD12	1.92	0.50
1:J:204:PHE:CD2	1:J:205:ARG:HG3	2.46	0.50
1:M:395:LEU:HD12	1:N:214:SER:HB2	1.93	0.50
1:T:398:GLU:OE2	1:U:191:ASP:HA	2.11	0.50
1:W:69:LYS:HG3	1:W:70:GLN:HG2	1.94	0.50
1:X:204:PHE:CE1	1:X:205:ARG:HD3	2.47	0.50
1:X:388:PRO:HB2	1:X:406:ARG:HH21	1.77	0.50
1:Z:184:PHE:CE2	1:Z:186:LEU:HD23	2.47	0.50
1:b:203:ASN:OD1	1:b:205:ARG:N	2.43	0.50
1:g:560:ARG:HH22	1:j:165:ARG:NH2	2.06	0.50
1:i:214:SER:OG	1:i:243:GLU:OE2	2.24	0.50
1:i:440:ILE:O	1:i:444:VAL:HG23	2.12	0.50
1:j:123:ASP:OD2	1:j:149:SER:N	2.45	0.50
1:A:210:LYS:NZ	1:P:208:GLN:HG3	2.26	0.50
1:A:359:TYR:CE1	1:A:557:PRO:HB3	2.47	0.50
1:B:531:LEU:HD23	1:B:533:PHE:HB2	1.93	0.50
1:C:94:LEU:HD23	1:C:305:ARG:HA	1.94	0.50
1:G:593:VAL:HG21	1:K:590:GLU:O	2.11	0.50
1:H:514:THR:HG23	1:H:516:ILE:HD11	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:365:ARG:NH2	1:O:81:LEU:HA	2.27	0.50
1:N:592:GLN:HE22	1:O:595:PRO:HD3	1.77	0.50
1:Q:157:THR:OG1	1:Q:160:ASP:OD2	2.19	0.50
1:Q:163:ASP:HA	1:Q:307:THR:HG23	1.94	0.50
1:Q:170:GLN:N	1:Q:301:SER:OG	2.45	0.50
1:R:55:LEU:HD21	1:R:74:LYS:HB3	1.94	0.50
1:R:589:ASN:O	1:R:591:THR:HG23	2.11	0.50
1:S:190:ARG:HB3	1:W:398:GLU:OE1	2.12	0.50
1:U:232:LEU:HD21	1:U:242:ILE:HD13	1.93	0.50
1:U:332:LEU:HB2	1:U:557:PRO:HG2	1.93	0.50
1:Y:423:LEU:HA	1:Y:586:LEU:HD11	1.92	0.50
1:f:219:GLU:HA	1:f:236:PHE:CD1	2.46	0.50
1:j:337:ILE:HG12	1:j:349:TYR:CE1	2.47	0.50
1:j:524:HIS:HE1	1:j:526:LEU:HD23	1.75	0.50
1:A:305:ARG:HH22	1:E:332:LEU:C	2.20	0.50
1:A:551:ARG:HE	1:A:552:GLU:H	1.60	0.50
1:B:46:GLY:HA3	1:B:328:MET:HA	1.93	0.50
1:B:138:GLY:HA3	1:B:260:ASP:HB3	1.94	0.50
1:G:116:GLN:OE1	1:G:116:GLN:N	2.45	0.50
1:I:222:THR:OG1	1:I:227:ALA:O	2.23	0.50
1:L:491:VAL:HG22	1:L:497:TYR:HD2	1.75	0.50
1:M:165:ARG:NE	1:Q:560:ARG:HH12	2.10	0.50
1:O:252:MET:HE2	1:O:252:MET:HA	1.94	0.50
1:O:590:GLU:O	1:R:593:VAL:HB	2.11	0.50
1:R:243:GLU:OE1	1:R:270:ARG:NE	2.39	0.50
1:S:54:ASN:OD1	1:W:350:PRO:HG2	2.11	0.50
1:T:128:ASN:OD1	1:T:129:PHE:N	2.42	0.50
1:U:219:GLU:HA	1:U:236:PHE:CD1	2.46	0.50
1:U:512:VAL:HG22	1:U:570:VAL:HG22	1.93	0.50
1:V:315:GLY:HA3	1:X:336:VAL:HG12	1.93	0.50
1:V:453:TYR:CZ	1:V:457:LEU:HD21	2.47	0.50
1:X:541:PHE:CE2	1:X:543:MET:HB2	2.46	0.50
1:Y:504:ASP:OD2	1:Y:505:LEU:N	2.45	0.50
1:b:445:TYR:CZ	1:d:480:GLN:HG3	2.46	0.50
1:f:534:ILE:HB	1:f:558:ARG:HB3	1.94	0.50
1:g:275:GLU:HG3	1:g:277:LYS:NZ	2.27	0.50
1:h:594:THR:O	1:h:596:ALA:N	2.44	0.50
1:A:264:ARG:HH22	1:P:262:SER:H	1.59	0.49
1:M:94:LEU:HD11	1:M:306:LEU:HB2	1.94	0.49
1:M:371:THR:HG23	1:N:190:ARG:HH12	1.77	0.49
1:M:421:ASN:ND2	1:Q:422:ASN:O	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:541:PHE:HZ	1:N:311:GLN:HE22	1.60	0.49
1:Q:443:MET:HB3	1:Q:569:LEU:HD13	1.93	0.49
1:Q:478:LEU:CD2	1:Q:511:ILE:HD11	2.42	0.49
1:S:79:GLN:HG3	1:S:86:THR:HG21	1.94	0.49
1:T:516:ILE:HG12	1:T:517:LEU:N	2.26	0.49
1:T:524:HIS:ND1	1:T:525:PRO:HD2	2.26	0.49
1:X:140:ASN:ND2	1:X:143:MET:HG2	2.27	0.49
1:a:136:GLY:HA2	1:i:267:ARG:HH21	1.76	0.49
1:d:76:ASN:OD1	1:d:77:ILE:N	2.45	0.49
1:d:239:GLY:HA3	1:d:274:LYS:HD3	1.94	0.49
1:g:286:VAL:HG13	1:g:290:LEU:HD12	1.93	0.49
1:g:375:ARG:HD3	1:g:563:ASN:ND2	2.27	0.49
1:A:135:ASN:C	1:P:267:ARG:HH22	2.20	0.49
1:A:371:THR:HG21	1:A:561:TYR:HB2	1.94	0.49
1:B:57:TRP:CZ2	1:B:59:GLY:HA2	2.47	0.49
1:J:153:LYS:HD3	1:L:545:ARG:NH2	2.24	0.49
1:J:527:GLN:HE22	1:J:529:GLY:H	1.61	0.49
1:M:341:ALA:C	1:M:342:MET:HE2	2.37	0.49
1:O:113:LEU:O	1:O:128:ASN:ND2	2.37	0.49
1:Q:440:ILE:HG23	1:Q:513:MET:HE1	1.93	0.49
1:W:360:ARG:HD2	1:W:364:MET:CE	2.42	0.49
1:X:89:THR:HB	1:X:316:LEU:HD11	1.92	0.49
1:X:157:THR:HG23	1:b:548:ARG:NH1	2.26	0.49
1:X:204:PHE:CD2	1:c:322:VAL:HG22	2.47	0.49
1:b:437:VAL:HG13	1:b:490:THR:HA	1.94	0.49
1:A:531:LEU:HD13	1:A:561:TYR:CD1	2.46	0.49
1:C:332:LEU:HB2	1:C:557:PRO:HG2	1.94	0.49
1:E:327:PHE:HB3	1:E:562:PHE:CE2	2.47	0.49
1:E:351:ARG:O	1:E:353:GLU:N	2.44	0.49
1:I:592:GLN:HB3	1:I:597:SER:OG	2.12	0.49
1:J:250:GLY:HA3	1:J:261:THR:HG22	1.94	0.49
1:K:28:HIS:N	1:K:364:MET:HG2	2.26	0.49
1:L:425:SER:HA	1:L:428:LYS:HG3	1.93	0.49
1:O:337:ILE:HG21	1:O:349:TYR:CZ	2.47	0.49
1:U:199:THR:HG21	1:U:208:GLN:HG3	1.93	0.49
1:Z:433:GLN:HG3	1:Z:481:TYR:O	2.12	0.49
1:b:57:TRP:CD2	1:b:74:LYS:HE2	2.47	0.49
1:b:58:GLU:HG2	1:b:122:LYS:NZ	2.27	0.49
1:b:592:GLN:HB3	1:b:597:SER:HB2	1.93	0.49
1:d:589:ASN:O	1:d:591:THR:HG23	2.13	0.49
1:g:512:VAL:O	1:g:513:MET:HE2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:g:554:ARG:NH2	1:j:313:GLU:O	2.36	0.49
1:i:206:LEU:O	1:i:207:MET:HE2	2.12	0.49
1:A:560:ARG:CZ	1:B:165:ARG:HH12	2.25	0.49
1:B:108:ILE:HD13	1:B:129:PHE:HB2	1.93	0.49
1:C:483:GLN:OE1	1:D:489:ARG:NH1	2.45	0.49
1:D:586:LEU:HD11	1:E:419:ASP:HA	1.94	0.49
1:E:388:PRO:HG3	1:E:450:LEU:HD11	1.93	0.49
1:G:199:THR:HG22	1:G:200:ARG:O	2.12	0.49
1:I:375:ARG:NH1	1:I:563:ASN:HB3	2.24	0.49
1:J:172:LEU:HD11	1:J:183:LEU:HD13	1.93	0.49
1:J:310:ASN:ND2	1:i:548:ARG:HA	2.26	0.49
1:L:119:LYS:NZ	1:L:121:GLY:O	2.45	0.49
1:M:364:MET:HG2	1:M:365:ARG:NH1	2.28	0.49
1:N:210:LYS:HD2	1:N:212:HIS:CD2	2.47	0.49
1:O:457:LEU:HD21	1:O:466:PRO:HD2	1.94	0.49
1:S:55:LEU:HD12	1:S:74:LYS:HB3	1.94	0.49
1:b:590:GLU:HG2	1:b:590:GLU:O	2.12	0.49
1:c:469:HIS:HD2	1:c:496:ASP:O	1.95	0.49
1:e:153:LYS:NZ	1:e:155:SER:O	2.45	0.49
1:e:449:GLN:OE1	1:i:508:LYS:NZ	2.46	0.49
1:f:206:LEU:O	1:f:207:MET:HE2	2.12	0.49
1:f:476:MET:HA	1:f:501:ARG:HG2	1.94	0.49
1:f:539:VAL:HG12	1:f:554:ARG:HB2	1.94	0.49
1:i:212:HIS:ND1	1:i:247:LYS:HD2	2.27	0.49
1:j:524:HIS:CE1	1:j:526:LEU:HD23	2.47	0.49
1:D:420:LEU:HD11	1:D:435:LEU:HD22	1.95	0.49
1:J:192:GLN:NE2	1:L:397:LEU:O	2.45	0.49
1:J:549:ILE:HG13	1:R:310:ASN:HB2	1.95	0.49
1:N:476:MET:HA	1:N:476:MET:HE3	1.93	0.49
1:O:119:LYS:NZ	1:O:121:GLY:O	2.45	0.49
1:O:128:ASN:OD1	1:O:129:PHE:N	2.44	0.49
1:P:420:LEU:HD11	1:P:431:ASP:HB3	1.95	0.49
1:Q:544:ILE:HD13	1:Q:549:ILE:HD13	1.94	0.49
1:S:252:MET:HE2	1:S:252:MET:HA	1.95	0.49
1:W:60:TRP:HD1	1:W:61:THR:N	2.10	0.49
1:a:416:VAL:HG11	1:a:576:LEU:HA	1.94	0.49
1:e:381:SER:O	1:f:241:ARG:NH2	2.45	0.49
1:e:451:THR:HG23	1:e:453:TYR:H	1.77	0.49
1:i:172:LEU:HD11	1:i:183:LEU:HD12	1.94	0.49
1:B:416:VAL:HG21	1:B:576:LEU:HD13	1.95	0.49
1:E:327:PHE:HB3	1:E:562:PHE:HE2	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:55:LEU:HD13	1:G:74:LYS:HD3	1.95	0.49
1:G:132:PHE:CD2	1:G:263:LEU:HB2	2.47	0.49
1:N:423:LEU:HD22	1:N:586:LEU:HD21	1.94	0.49
1:O:527:GLN:OE1	1:O:527:GLN:N	2.46	0.49
1:Q:153:LYS:HE3	1:W:547:GLN:HE22	1.76	0.49
1:S:336:VAL:HG23	1:S:554:ARG:HG2	1.94	0.49
1:X:526:LEU:HA	1:X:565:LEU:HD21	1.94	0.49
1:b:547:GLN:C	1:b:548:ARG:HD2	2.36	0.49
1:f:115:ALA:HB1	1:f:126:ASP:OD1	2.11	0.49
1:f:410:ASN:OD1	1:f:411:GLU:N	2.46	0.49
1:B:55:LEU:HD13	1:B:74:LYS:HB3	1.94	0.49
1:D:243:GLU:OE1	1:D:243:GLU:N	2.45	0.49
1:E:99:GLN:OE1	1:E:103:ASN:ND2	2.34	0.49
1:E:240:TYR:OH	1:E:285:ARG:NH2	2.39	0.49
1:G:73:SER:O	1:G:75:ARG:NH1	2.46	0.49
1:G:200:ARG:HH21	1:R:197:THR:HB	1.76	0.49
1:G:352:LEU:HD22	1:G:553:ILE:HG21	1.95	0.49
1:H:389:HIS:CD2	1:I:241:ARG:HH22	2.30	0.49
1:J:207:MET:HA	1:J:207:MET:HE3	1.93	0.49
1:J:322:VAL:HG11	1:L:347:LYS:HB3	1.95	0.49
1:J:588:VAL:HG23	1:K:590:GLU:HA	1.95	0.49
1:M:221:SER:OG	1:M:222:THR:N	2.46	0.49
1:O:338:VAL:HG22	1:R:317:LEU:HD12	1.94	0.49
1:P:583:ARG:NH2	1:Q:587:ASP:HB2	2.28	0.49
1:Q:352:LEU:HD11	1:Q:553:ILE:HD13	1.95	0.49
1:R:448:ASP:OD1	1:R:454:THR:HG23	2.13	0.49
1:X:153:LYS:HE3	1:b:547:GLN:HE22	1.77	0.49
1:Y:330:PRO:HG3	1:Z:165:ARG:HD3	1.93	0.49
1:d:440:ILE:HD11	1:d:513:MET:HG2	1.95	0.49
1:f:541:PHE:CE2	1:f:543:MET:HB2	2.47	0.49
1:g:93:GLU:OE1	1:g:93:GLU:N	2.45	0.49
1:h:359:TYR:CE1	1:h:557:PRO:HB3	2.48	0.49
1:h:414:ILE:HD11	1:h:439:LYS:HG2	1.94	0.49
1:i:313:GLU:C	1:i:314:MET:HE2	2.37	0.49
1:G:591:THR:OG1	1:K:588:VAL:N	2.45	0.49
1:K:166:ILE:HG13	1:K:196:TYR:CD1	2.47	0.49
1:L:131:LYS:HD3	1:L:132:PHE:O	2.12	0.49
1:T:76:ASN:HB3	1:T:391:ILE:HD11	1.95	0.49
1:T:477:ARG:HE	1:T:478:LEU:HD12	1.77	0.49
1:U:433:GLN:OE1	1:U:484:ILE:HG12	2.12	0.49
1:U:437:VAL:HG11	1:U:484:ILE:HD11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:152:LYS:HE2	1:X:152:LYS:HA	1.95	0.49
1:X:375:ARG:HH21	1:X:566:PRO:HA	1.76	0.49
1:e:177:LYS:HE3	1:e:293:LEU:HD21	1.95	0.49
1:e:283:ASP:OD1	1:e:284:SER:N	2.44	0.49
1:j:128:ASN:OD1	1:j:129:PHE:N	2.44	0.49
1:B:157:THR:O	1:J:61:THR:HG22	2.12	0.49
1:B:172:LEU:HD21	1:B:183:LEU:HD22	1.94	0.49
1:B:336:VAL:HG21	1:C:314:MET:SD	2.53	0.49
1:C:350:PRO:HA	1:D:320:SER:HB2	1.95	0.49
1:D:589:ASN:HB3	1:E:421:ASN:HB2	1.95	0.49
1:E:260:ASP:N	1:E:260:ASP:OD1	2.44	0.49
1:H:534:ILE:HG21	1:H:558:ARG:HB2	1.94	0.49
1:J:534:ILE:HB	1:J:558:ARG:HG3	1.95	0.49
1:N:398:GLU:H	1:N:398:GLU:CD	2.20	0.49
1:O:169:LYS:HG3	1:O:170:GLN:HG3	1.95	0.49
1:P:65:LEU:HD22	1:T:146:GLN:NE2	2.28	0.49
1:Q:397:LEU:O	1:Q:402:GLN:NE2	2.46	0.49
1:S:204:PHE:HB3	1:S:205:ARG:CZ	2.42	0.49
1:S:315:GLY:HA3	1:W:336:VAL:HG12	1.94	0.49
1:T:443:MET:HA	1:T:443:MET:HE2	1.95	0.49
1:U:196:TYR:CE2	1:U:209:LEU:HB2	2.48	0.49
1:W:477:ARG:NH1	1:W:576:LEU:HD22	2.28	0.49
1:b:57:TRP:NE1	1:b:319:ASP:OD2	2.43	0.49
1:c:37:THR:HA	1:c:531:LEU:HB3	1.94	0.49
1:c:212:HIS:HA	1:c:247:LYS:HD2	1.94	0.49
1:f:443:MET:HE2	1:f:443:MET:HA	1.95	0.49
1:h:165:ARG:HH22	1:j:560:ARG:HH21	1.60	0.49
1:C:429:GLN:HB3	1:C:433:GLN:NE2	2.27	0.49
1:E:169:LYS:HB2	1:E:301:SER:HB2	1.94	0.49
1:J:477:ARG:HH12	1:K:446:THR:N	2.11	0.49
1:K:417:LEU:HD22	1:K:418:ASN:OD1	2.13	0.49
1:N:541:PHE:CE2	1:N:543:MET:HB2	2.47	0.49
1:P:245:ASP:HB3	1:P:267:ARG:HG2	1.95	0.49
1:R:30:PHE:CD1	1:R:502:ILE:HG12	2.48	0.49
1:V:76:ASN:OD1	1:V:77:ILE:N	2.46	0.49
1:Y:93:GLU:HA	1:Y:305:ARG:HG2	1.95	0.49
1:Y:414:ILE:HD11	1:Y:439:LYS:HG2	1.94	0.49
1:b:201:GLU:N	1:b:201:GLU:OE2	2.46	0.49
1:d:245:ASP:HB3	1:d:267:ARG:HG2	1.94	0.49
1:f:527:GLN:O	1:f:564:PHE:HB2	2.12	0.49
1:B:541:PHE:HE2	1:B:543:MET:HB2	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:203:ASN:OD1	1:C:204:PHE:N	2.45	0.48
1:E:408:TYR:HE2	1:E:447:ALA:HA	1.78	0.48
1:G:347:LYS:O	1:G:347:LYS:NZ	2.31	0.48
1:H:239:GLY:HA3	1:H:274:LYS:HE2	1.95	0.48
1:J:308:ASN:ND2	1:L:334:PRO:HG3	2.27	0.48
1:J:467:LYS:HD2	1:J:494:GLY:O	2.13	0.48
1:K:433:GLN:CD	1:K:484:ILE:HG12	2.38	0.48
1:P:442:GLU:HG3	1:R:580:ILE:HD12	1.93	0.48
1:S:33:LEU:HD21	1:S:471:ALA:HB1	1.95	0.48
1:V:359:TYR:CE1	1:V:557:PRO:HB3	2.35	0.48
1:W:283:ASP:OD1	1:W:284:SER:N	2.46	0.48
1:a:102:GLU:OE2	1:h:65:LEU:HG	2.13	0.48
1:e:345:ASP:CG	1:e:346:ASP:H	2.19	0.48
1:e:477:ARG:NH1	1:f:446:THR:HA	2.28	0.48
1:f:526:LEU:HA	1:f:565:LEU:HD21	1.95	0.48
1:h:119:LYS:HZ1	1:h:121:GLY:C	2.21	0.48
1:h:447:ALA:O	1:h:451:THR:HG22	2.13	0.48
1:A:387:VAL:HG11	1:B:241:ARG:NH2	2.28	0.48
1:A:526:LEU:HA	1:A:565:LEU:HD21	1.94	0.48
1:D:517:LEU:HD12	1:D:518:PRO:HD2	1.95	0.48
1:D:529:GLY:HA2	1:D:564:PHE:HD2	1.78	0.48
1:L:469:HIS:HA	1:L:496:ASP:OD1	2.13	0.48
1:L:483:GLN:HE21	1:L:485:ASN:N	2.09	0.48
1:M:578:GLU:OE2	1:M:578:GLU:N	2.38	0.48
1:R:46:GLY:HA3	1:R:328:MET:HA	1.95	0.48
1:T:542:ASN:HD21	1:T:549:ILE:HG23	1.77	0.48
1:Y:311:GLN:HG3	1:c:334:PRO:HG3	1.96	0.48
1:b:439:LYS:NZ	1:d:581:ALA:HB2	2.28	0.48
1:g:61:THR:HB	1:g:70:GLN:OE1	2.13	0.48
1:j:237:ASP:OD1	1:j:238:LEU:N	2.46	0.48
1:D:400:VAL:HG12	1:D:564:PHE:HD1	1.78	0.48
1:G:347:LYS:NZ	1:H:320:SER:OG	2.46	0.48
1:J:339:LYS:HD3	1:J:349:TYR:CG	2.49	0.48
1:K:565:LEU:HD12	1:K:566:PRO:HD2	1.95	0.48
1:M:210:LYS:HG2	1:M:212:HIS:NE2	2.27	0.48
1:M:487:ASP:HB2	1:M:489:ARG:HH11	1.77	0.48
1:M:548:ARG:NH2	1:N:65:LEU:O	2.41	0.48
1:P:590:GLU:HG2	1:Q:590:GLU:HG3	1.95	0.48
1:T:464:ARG:NH1	1:T:466:PRO:HG3	2.28	0.48
1:W:36:ARG:HB3	1:W:36:ARG:NH1	2.28	0.48
1:Y:57:TRP:NE1	1:Y:319:ASP:OD2	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:337:ILE:HD12	1:Y:349:TYR:HE1	1.77	0.48
1:Z:275:GLU:N	1:Z:275:GLU:OE1	2.46	0.48
1:b:439:LYS:HZ1	1:d:581:ALA:HB2	1.78	0.48
1:e:208:GLN:NE2	1:e:210:LYS:HE2	2.28	0.48
1:e:517:LEU:HD12	1:e:527:GLN:NE2	2.28	0.48
1:e:541:PHE:HE2	1:e:543:MET:HB2	1.77	0.48
1:f:80:GLY:HA2	1:f:86:THR:HG21	1.94	0.48
1:j:388:PRO:O	1:j:406:ARG:NH2	2.47	0.48
1:E:273:ASP:OD1	1:E:277:LYS:N	2.41	0.48
1:H:59:GLY:HA3	1:H:317:LEU:HD22	1.96	0.48
1:H:511:ILE:HB	1:H:571:ILE:HB	1.93	0.48
1:I:577:GLU:HA	1:L:442:GLU:OE1	2.14	0.48
1:J:363:GLN:OE1	1:J:364:MET:HG2	2.13	0.48
1:K:177:LYS:HB2	1:K:293:LEU:HA	1.95	0.48
1:M:420:LEU:HD23	1:M:584:THR:HG21	1.95	0.48
1:Q:447:ALA:HB2	1:Q:569:LEU:HD11	1.95	0.48
1:V:331:THR:HG23	1:V:558:ARG:HE	1.77	0.48
1:X:453:TYR:CE2	1:X:457:LEU:HD11	2.49	0.48
1:c:339:LYS:HD2	1:c:551:ARG:HD3	1.94	0.48
1:d:177:LYS:HB3	1:d:231:LEU:HD22	1.94	0.48
1:e:410:ASN:OD1	1:e:411:GLU:N	2.44	0.48
1:g:255:GLU:HG3	1:g:256:ASN:OD1	2.14	0.48
1:g:397:LEU:HD12	1:g:566:PRO:HB3	1.95	0.48
1:j:513:MET:N	1:j:513:MET:SD	2.86	0.48
1:B:203:ASN:OD1	1:B:204:PHE:N	2.47	0.48
1:B:264:ARG:NH1	1:K:249:ASP:OD2	2.46	0.48
1:D:545:ARG:HG3	1:D:552:GLU:OE2	2.14	0.48
1:G:541:PHE:HE2	1:G:543:MET:HB2	1.77	0.48
1:H:347:LYS:O	1:I:320:SER:HB2	2.14	0.48
1:I:330:PRO:HB2	1:L:305:ARG:HH21	1.79	0.48
1:I:594:THR:O	1:I:596:ALA:N	2.46	0.48
1:J:143:MET:HG3	1:e:67:GLY:HA2	1.96	0.48
1:J:439:LYS:NZ	1:L:581:ALA:HA	2.29	0.48
1:M:223:THR:HG23	1:M:225:ALA:H	1.77	0.48
1:M:455:ALA:HA	1:M:458:GLU:HG2	1.96	0.48
1:M:540:ASP:OD2	1:M:551:ARG:NH1	2.46	0.48
1:N:363:GLN:NE2	1:N:531:LEU:HD21	2.26	0.48
1:P:480:GLN:HG3	1:Q:445:TYR:CE1	2.48	0.48
1:Q:589:ASN:O	1:Q:591:THR:HG23	2.13	0.48
1:R:172:LEU:HD21	1:R:183:LEU:HD22	1.96	0.48
1:R:548:ARG:NH2	1:T:312:LEU:HD11	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:414:ILE:HD11	1:S:439:LYS:HG2	1.94	0.48
1:S:434:GLY:HA3	1:W:426:ALA:HA	1.95	0.48
1:V:363:GLN:NE2	1:V:531:LEU:HD21	2.28	0.48
1:b:57:TRP:CE2	1:b:74:LYS:HE2	2.49	0.48
1:d:484:ILE:HG13	1:d:486:GLY:H	1.77	0.48
1:A:219:GLU:HA	1:A:236:PHE:CG	2.49	0.48
1:A:479:PRO:HA	1:A:482:ILE:HD13	1.94	0.48
1:C:545:ARG:HG3	1:C:546:ASN:OD1	2.13	0.48
1:D:582:GLN:HA	1:D:585:ALA:HB3	1.95	0.48
1:K:322:VAL:HG22	1:R:204:PHE:CD1	2.48	0.48
1:K:512:VAL:O	1:K:513:MET:HE2	2.14	0.48
1:L:483:GLN:HE21	1:L:485:ASN:H	1.61	0.48
1:M:53:ARG:HD2	1:M:55:LEU:HD11	1.95	0.48
1:M:447:ALA:HB2	1:M:569:LEU:HD11	1.95	0.48
1:P:269:ALA:C	1:P:270:ARG:HD3	2.39	0.48
1:Q:417:LEU:HA	1:Q:579:ALA:HB2	1.94	0.48
1:R:351:ARG:HG3	1:R:352:LEU:N	2.28	0.48
1:S:160:ASP:HB2	1:S:306:LEU:HD11	1.95	0.48
1:V:445:TYR:HE2	1:V:495:TYR:HE2	1.60	0.48
1:W:336:VAL:HB	1:W:554:ARG:HG3	1.94	0.48
1:X:429:GLN:NE2	1:X:429:GLN:H	2.11	0.48
1:Z:347:LYS:O	1:a:320:SER:HB2	2.14	0.48
1:c:477:ARG:HH22	1:c:576:LEU:HB3	1.78	0.48
1:f:192:GLN:CD	1:f:192:GLN:H	2.22	0.48
1:g:422:ASN:ND2	1:g:428:LYS:HE2	2.28	0.48
1:j:76:ASN:OD1	1:j:78:LEU:N	2.46	0.48
1:A:425:SER:OG	1:A:583:ARG:O	2.32	0.48
1:H:428:LYS:NZ	1:H:580:ILE:HA	2.29	0.48
1:J:256:ASN:HB2	1:e:70:GLN:HG3	1.95	0.48
1:K:332:LEU:HB2	1:K:557:PRO:HG2	1.95	0.48
1:L:128:ASN:OD1	1:L:129:PHE:N	2.41	0.48
1:N:472:ILE:HB	1:N:499:ILE:HA	1.95	0.48
1:O:475:ASP:OD2	1:O:509:ASP:N	2.37	0.48
1:O:589:ASN:O	1:O:591:THR:HG23	2.14	0.48
1:P:53:ARG:NH1	1:P:403:TYR:HB3	2.24	0.48
1:R:331:THR:HA	1:R:558:ARG:HG2	1.95	0.48
1:U:327:PHE:HB3	1:U:562:PHE:HE1	1.79	0.48
1:U:425:SER:OG	1:X:421:ASN:OD1	2.30	0.48
1:W:93:GLU:HA	1:W:305:ARG:HD2	1.94	0.48
1:W:275:GLU:OE1	1:W:275:GLU:N	2.47	0.48
1:Y:504:ASP:CG	1:Y:506:ARG:HE	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:346:ASP:HA	1:b:349:TYR:O	2.13	0.48
1:e:96:PRO:HA	1:e:145:ALA:HB2	1.95	0.48
1:e:382:TYR:HA	1:f:241:ARG:NH2	2.25	0.48
1:f:468:PRO:HG2	1:f:495:TYR:CE1	2.46	0.48
1:A:75:ARG:HH12	1:A:86:THR:HB	1.78	0.48
1:A:267:ARG:HH22	1:P:135:ASN:CG	2.20	0.48
1:G:156:MET:C	1:O:64:GLY:HA2	2.38	0.48
1:G:208:GLN:NE2	1:G:209:LEU:O	2.47	0.48
1:H:588:VAL:HB	1:I:590:GLU:HA	1.96	0.48
1:J:57:TRP:HA	1:J:75:ARG:NH1	2.29	0.48
1:J:200:ARG:HH21	1:e:324:LYS:H	1.59	0.48
1:K:359:TYR:HE2	1:K:557:PRO:HB3	1.79	0.48
1:K:545:ARG:HH11	1:K:545:ARG:HG3	1.79	0.48
1:N:249:ASP:O	1:N:262:SER:N	2.39	0.48
1:O:365:ARG:NH2	1:R:81:LEU:HA	2.29	0.48
1:T:160:ASP:HB3	1:T:306:LEU:HD11	1.94	0.48
1:T:410:ASN:OD1	1:T:411:GLU:N	2.46	0.48
1:X:400:VAL:HG23	1:X:525:PRO:HB3	1.96	0.48
1:b:396:GLY:C	1:c:192:GLN:HE22	2.22	0.48
1:e:445:TYR:HE2	1:e:495:TYR:HE2	1.60	0.48
1:h:165:ARG:NH2	1:j:560:ARG:HH21	2.11	0.48
1:i:77:ILE:HG23	1:i:78:LEU:HD12	1.95	0.48
1:i:219:GLU:HA	1:i:236:PHE:CD2	2.49	0.48
1:j:453:TYR:CZ	1:j:457:LEU:HD21	2.49	0.48
1:G:158:PHE:HE2	1:N:338:VAL:HG11	1.79	0.48
1:H:336:VAL:HG11	1:I:314:MET:HB3	1.96	0.48
1:I:339:LYS:HE3	1:I:551:ARG:HH22	1.78	0.48
1:I:590:GLU:N	1:L:593:VAL:HG21	2.28	0.48
1:M:579:ALA:O	1:M:584:THR:OG1	2.32	0.48
1:P:508:LYS:HE2	1:P:508:LYS:HA	1.96	0.48
1:S:545:ARG:HH11	1:T:153:LYS:NZ	2.11	0.48
1:T:260:ASP:OD2	1:T:261:THR:N	2.47	0.48
1:T:402:GLN:H	1:T:402:GLN:CD	2.22	0.48
1:T:467:LYS:HZ1	1:T:496:ASP:CG	2.22	0.48
1:U:36:ARG:HH12	1:U:521:SER:HA	1.78	0.48
1:V:333:PRO:HD3	1:W:305:ARG:NH2	2.28	0.48
1:V:558:ARG:HH11	1:V:558:ARG:HG3	1.79	0.48
1:W:375:ARG:NE	1:W:563:ASN:HB3	2.29	0.48
1:X:310:ASN:HD21	1:b:548:ARG:HA	1.78	0.48
1:b:404:TYR:CE2	1:b:456:ALA:HB1	2.48	0.48
1:f:166:ILE:HD13	1:f:252:MET:HE1	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:204:PHE:HD1	1:f:205:ARG:HD3	1.79	0.48
1:A:511:ILE:HB	1:A:571:ILE:HB	1.96	0.48
1:D:169:LYS:HZ1	1:D:303:GLU:HA	1.78	0.48
1:E:169:LYS:NZ	1:E:302:LEU:O	2.29	0.48
1:K:472:ILE:HG23	1:K:513:MET:HE1	1.96	0.48
1:K:484:ILE:HG21	1:K:487:ASP:HB3	1.95	0.48
1:L:382:TYR:CE2	1:L:397:LEU:HD21	2.48	0.48
1:M:183:LEU:O	1:M:223:THR:OG1	2.29	0.48
1:M:371:THR:HG23	1:N:190:ARG:NH1	2.28	0.48
1:Q:467:LYS:NZ	1:Q:496:ASP:OD1	2.47	0.48
1:R:57:TRP:HA	1:R:75:ARG:NH1	2.29	0.48
1:R:340:PRO:HB3	1:T:309:ILE:HD12	1.96	0.48
1:S:311:GLN:HG3	1:W:541:PHE:HZ	1.77	0.48
1:T:467:LYS:HZ2	1:T:495:TYR:HA	1.79	0.48
1:V:89:THR:OG1	1:V:90:ASN:N	2.47	0.48
1:V:354:ALA:HB2	1:W:54:ASN:HD21	1.78	0.48
1:X:423:LEU:HA	1:X:586:LEU:HD21	1.96	0.48
1:Y:52:ARG:HB3	1:c:347:LYS:HE3	1.96	0.48
1:Y:583:ARG:HH21	1:Z:587:ASP:H	1.61	0.48
1:Z:507:MET:HE2	1:Z:507:MET:HA	1.96	0.48
1:A:363:GLN:C	1:A:364:MET:HE2	2.39	0.47
1:A:513:MET:HB3	1:A:569:LEU:HB2	1.95	0.47
1:C:351:ARG:HG3	1:C:352:LEU:N	2.27	0.47
1:D:504:ASP:OD2	1:D:505:LEU:N	2.46	0.47
1:E:90:ASN:HB2	1:E:93:GLU:HG3	1.96	0.47
1:E:273:ASP:OD2	1:E:277:LYS:HE2	2.14	0.47
1:J:469:HIS:ND1	1:J:518:PRO:HG2	2.29	0.47
1:M:171:LEU:HD12	1:M:188:VAL:HG11	1.95	0.47
1:N:512:VAL:O	1:N:513:MET:HE2	2.13	0.47
1:O:252:MET:HE2	1:O:259:GLY:HA3	1.95	0.47
1:O:524:HIS:HB3	1:O:527:GLN:OE1	2.14	0.47
1:O:592:GLN:NE2	1:R:594:THR:HA	2.29	0.47
1:P:339:LYS:HD3	1:P:349:TYR:CD1	2.49	0.47
1:P:419:ASP:HA	1:R:583:ARG:HB2	1.96	0.47
1:P:469:HIS:HB3	1:P:516:ILE:O	2.14	0.47
1:S:484:ILE:HG23	1:T:489:ARG:NH2	2.29	0.47
1:W:375:ARG:HH11	1:W:379:LEU:HD21	1.79	0.47
1:Y:341:ALA:HB2	1:Y:551:ARG:HB2	1.96	0.47
1:b:328:MET:HB3	1:c:165:ARG:HH11	1.79	0.47
1:d:192:GLN:H	1:d:192:GLN:CD	2.22	0.47
1:e:30:PHE:CZ	1:e:507:MET:HE1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:467:LYS:HD3	1:e:467:LYS:N	2.28	0.47
1:h:119:LYS:HA	1:h:119:LYS:HD2	1.50	0.47
1:h:411:GLU:OE1	1:h:570:VAL:HB	2.14	0.47
1:i:520:GLU:CD	1:i:521:SER:H	2.21	0.47
1:A:264:ARG:CZ	1:P:262:SER:HB2	2.43	0.47
1:B:87:LEU:HD23	1:B:87:LEU:H	1.79	0.47
1:B:160:ASP:HA	1:B:310:ASN:HD21	1.78	0.47
1:B:331:THR:HA	1:B:558:ARG:HB2	1.96	0.47
1:E:247:LYS:HD3	1:E:265:ALA:HB3	1.96	0.47
1:G:199:THR:HG21	1:R:210:LYS:NZ	2.29	0.47
1:G:247:LYS:HD3	1:G:264:ARG:HD2	1.96	0.47
1:I:554:ARG:NH1	1:L:313:GLU:O	2.46	0.47
1:M:192:GLN:HE22	1:Q:396:GLY:C	2.22	0.47
1:P:247:LYS:HZ1	1:P:264:ARG:HE	1.61	0.47
1:T:106:GLN:HG2	1:T:144:LEU:HD21	1.96	0.47
1:W:536:GLU:OE2	1:W:558:ARG:N	2.46	0.47
1:X:531:LEU:HD11	1:X:559:TYR:HB2	1.95	0.47
1:b:177:LYS:HB2	1:b:231:LEU:HD22	1.96	0.47
1:e:477:ARG:HH12	1:f:446:THR:HA	1.78	0.47
1:B:138:GLY:N	1:J:69:LYS:HZ1	2.10	0.47
1:D:544:ILE:HD12	1:S:544:ILE:HD11	1.95	0.47
1:E:388:PRO:HD3	1:E:450:LEU:HD21	1.96	0.47
1:G:57:TRP:HA	1:G:75:ARG:HH12	1.79	0.47
1:J:410:ASN:ND2	1:J:443:MET:SD	2.87	0.47
1:J:531:LEU:HG	1:J:533:PHE:HB2	1.96	0.47
1:P:593:VAL:O	1:P:594:THR:HG23	2.14	0.47
1:Q:310:ASN:HB2	1:W:549:ILE:H	1.80	0.47
1:R:560:ARG:HB3	1:R:562:PHE:CE2	2.49	0.47
1:S:93:GLU:OE2	1:S:93:GLU:N	2.36	0.47
1:S:425:SER:HA	1:S:428:LYS:HZ2	1.80	0.47
1:U:323:GLN:HA	1:Y:204:PHE:CD2	2.50	0.47
1:X:210:LYS:HD2	1:X:212:HIS:NE2	2.29	0.47
1:c:424:THR:HG22	1:c:426:ALA:N	2.19	0.47
1:f:347:LYS:HB3	1:g:52:ARG:CZ	2.45	0.47
1:B:143:MET:HE1	1:J:67:GLY:N	2.29	0.47
1:C:480:GLN:CD	1:C:480:GLN:H	2.22	0.47
1:D:135:ASN:O	1:Z:267:ARG:NH1	2.47	0.47
1:H:592:GLN:NE2	1:I:594:THR:HA	2.29	0.47
1:K:123:ASP:OD2	1:K:149:SER:N	2.47	0.47
1:L:186:LEU:HG	1:L:215:LEU:HD21	1.96	0.47
1:M:196:TYR:CD2	1:M:209:LEU:HB2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:336:VAL:HG12	1:N:554:ARG:HD3	1.96	0.47
1:N:429:GLN:HE21	1:O:489:ARG:NH2	2.13	0.47
1:R:230:ALA:HA	1:R:233:LYS:HB2	1.95	0.47
1:S:423:LEU:HD12	1:T:423:LEU:HD11	1.96	0.47
1:S:477:ARG:NH2	1:S:509:ASP:OD2	2.37	0.47
1:T:68:GLU:HA	1:T:70:GLN:HG3	1.96	0.47
1:U:410:ASN:OD1	1:U:411:GLU:N	2.47	0.47
1:U:588:VAL:N	1:X:589:ASN:O	2.43	0.47
1:V:542:ASN:OD1	1:V:543:MET:N	2.48	0.47
1:W:375:ARG:HA	1:W:378:THR:HG22	1.96	0.47
1:X:169:LYS:HB2	1:X:303:GLU:HB2	1.96	0.47
1:c:507:MET:HG3	1:c:510:LYS:HD2	1.96	0.47
1:d:439:LYS:HZ3	1:d:443:MET:HE3	1.79	0.47
1:e:345:ASP:O	1:e:349:TYR:HB3	2.15	0.47
1:f:336:VAL:HB	1:f:554:ARG:HD3	1.95	0.47
1:h:423:LEU:HD21	1:j:423:LEU:HB3	1.96	0.47
1:i:215:LEU:HD12	1:i:246:VAL:HG21	1.96	0.47
1:D:56:VAL:O	1:D:75:ARG:NH1	2.47	0.47
1:E:212:HIS:ND1	1:E:247:LYS:HG2	2.29	0.47
1:G:583:ARG:HG2	1:H:587:ASP:OD2	2.13	0.47
1:J:421:ASN:OD1	1:L:583:ARG:NH1	2.47	0.47
1:L:69:LYS:HE2	1:f:137:GLU:HB2	1.95	0.47
1:M:45:ALA:HB1	1:M:328:MET:HE1	1.96	0.47
1:O:50:SER:HA	1:O:324:LYS:HB3	1.97	0.47
1:P:157:THR:HG22	1:P:159:THR:H	1.79	0.47
1:P:449:GLN:HG3	1:P:450:LEU:HD22	1.95	0.47
1:S:192:GLN:HE22	1:W:397:LEU:C	2.20	0.47
1:S:367:ASN:HD22	1:S:559:TYR:HE2	1.62	0.47
1:T:549:ILE:H	1:Y:310:ASN:HD22	1.61	0.47
1:U:367:ASN:HD22	1:U:559:TYR:HE2	1.62	0.47
1:W:512:VAL:HG22	1:W:570:VAL:HG22	1.95	0.47
1:X:156:MET:HG3	1:c:64:GLY:HA2	1.97	0.47
1:Y:476:MET:SD	1:Y:501:ARG:HB2	2.54	0.47
1:Z:593:VAL:O	1:Z:594:THR:HG23	2.14	0.47
1:a:308:ASN:ND2	1:a:312:LEU:HG	2.29	0.47
1:e:483:GLN:HG3	1:e:485:ASN:HD21	1.78	0.47
1:f:347:LYS:HB3	1:g:52:ARG:NH1	2.30	0.47
1:h:409:TYR:HE1	1:h:411:GLU:HG2	1.80	0.47
1:i:60:TRP:HD1	1:i:72:ILE:HG12	1.80	0.47
1:C:69:LYS:HA	1:C:69:LYS:HD3	1.65	0.47
1:D:213:THR:OG1	1:D:214:SER:N	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:219:GLU:HG2	1:G:236:PHE:CD2	2.50	0.47
1:M:163:ASP:HB2	1:M:307:THR:HB	1.96	0.47
1:N:539:VAL:HG11	1:O:311:GLN:HE22	1.80	0.47
1:O:471:ALA:HB2	1:O:516:ILE:HG12	1.96	0.47
1:O:484:ILE:HB	1:O:487:ASP:HB2	1.97	0.47
1:O:560:ARG:HH21	1:R:190:ARG:HG2	1.79	0.47
1:R:308:ASN:HD21	1:R:310:ASN:ND2	2.13	0.47
1:S:423:LEU:HD21	1:W:423:LEU:HD12	1.97	0.47
1:T:484:ILE:HG23	1:T:490:THR:HG23	1.96	0.47
1:W:375:ARG:HE	1:W:563:ASN:HB3	1.78	0.47
1:X:364:MET:HG2	1:X:365:ARG:NH2	2.30	0.47
1:c:478:LEU:O	1:c:481:TYR:N	2.33	0.47
1:d:196:TYR:CE1	1:d:209:LEU:HD22	2.50	0.47
1:e:514:THR:HG21	1:e:528:HIS:CG	2.49	0.47
1:f:157:THR:OG1	1:f:160:ASP:OD1	2.32	0.47
1:f:514:THR:OG1	1:f:528:HIS:ND1	2.47	0.47
1:g:36:ARG:NH2	1:g:527:GLN:HE21	2.08	0.47
1:g:429:GLN:CD	1:g:429:GLN:H	2.22	0.47
1:h:75:ARG:NE	1:h:86:THR:O	2.47	0.47
1:h:79:GLN:O	1:h:83:ASP:N	2.42	0.47
1:j:410:ASN:OD1	1:j:411:GLU:N	2.47	0.47
1:A:235:LEU:HD13	1:A:242:ILE:HD11	1.96	0.47
1:A:417:LEU:HB3	1:A:575:ASN:HD21	1.79	0.47
1:B:82:LEU:HD13	1:B:406:ARG:NH1	2.30	0.47
1:B:375:ARG:HH11	1:B:563:ASN:HB3	1.79	0.47
1:B:425:SER:HA	1:B:583:ARG:HG2	1.97	0.47
1:C:429:GLN:HE21	1:D:437:VAL:HG12	1.79	0.47
1:C:505:LEU:HG	1:D:82:LEU:O	2.15	0.47
1:D:72:ILE:HB	1:D:74:LYS:HZ1	1.79	0.47
1:D:123:ASP:OD2	1:D:149:SER:N	2.44	0.47
1:D:331:THR:O	1:E:305:ARG:HD3	2.15	0.47
1:E:167:ALA:O	1:E:303:GLU:N	2.35	0.47
1:E:345:ASP:OD2	1:E:551:ARG:HD3	2.14	0.47
1:E:416:VAL:HG11	1:E:576:LEU:HA	1.96	0.47
1:G:423:LEU:O	1:H:421:ASN:HB3	2.13	0.47
1:G:527:GLN:HE22	1:G:529:GLY:H	1.63	0.47
1:H:424:THR:HG22	1:H:426:ALA:H	1.79	0.47
1:H:583:ARG:NH2	1:I:421:ASN:HA	2.30	0.47
1:J:171:LEU:HD12	1:J:188:VAL:HG11	1.96	0.47
1:J:263:LEU:HD21	1:J:266:LEU:HD22	1.96	0.47
1:K:139:PHE:HE2	1:K:141:LEU:HB2	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:191:ASP:OD1	1:L:192:GLN:N	2.44	0.47
1:M:175:VAL:HG13	1:M:231:LEU:HD12	1.95	0.47
1:N:52:ARG:H	1:N:52:ARG:HD3	1.79	0.47
1:N:365:ARG:NH2	1:O:81:LEU:HD13	2.30	0.47
1:O:577:GLU:HA	1:R:442:GLU:OE1	2.15	0.47
1:P:165:ARG:HD2	1:R:328:MET:SD	2.54	0.47
1:P:332:LEU:HB2	1:P:557:PRO:HG2	1.96	0.47
1:P:334:PRO:HB3	1:P:556:THR:HG22	1.97	0.47
1:P:433:GLN:NE2	1:P:484:ILE:HA	2.30	0.47
1:P:565:LEU:HD12	1:P:566:PRO:HD2	1.96	0.47
1:Q:140:ASN:HA	1:Q:257:GLY:O	2.15	0.47
1:R:375:ARG:HD3	1:R:563:ASN:ND2	2.30	0.47
1:S:283:ASP:OD1	1:S:284:SER:N	2.47	0.47
1:S:483:GLN:HE21	1:S:486:GLY:N	2.12	0.47
1:T:370:THR:OG1	1:T:506:ARG:NH1	2.45	0.47
1:X:307:THR:HG23	1:X:307:THR:O	2.15	0.47
1:Y:153:LYS:O	1:Y:153:LYS:HD3	2.14	0.47
1:a:586:LEU:HD22	1:d:586:LEU:HD13	1.96	0.47
1:b:428:LYS:HZ1	1:b:580:ILE:HA	1.80	0.47
1:b:589:ASN:O	1:b:591:THR:HG23	2.14	0.47
1:e:106:GLN:C	1:e:131:LYS:H	2.23	0.47
1:e:208:GLN:HE22	1:e:210:LYS:HE2	1.80	0.47
1:f:308:ASN:HB2	1:f:311:GLN:H	1.80	0.47
1:g:45:ALA:HB1	1:g:328:MET:HE1	1.96	0.47
1:g:196:TYR:CE2	1:g:209:LEU:HB2	2.50	0.47
1:g:203:ASN:OD1	1:g:205:ARG:N	2.44	0.47
1:g:433:GLN:NE2	1:g:484:ILE:HD11	2.30	0.47
1:g:590:GLU:HB3	1:j:593:VAL:O	2.15	0.47
1:i:474:THR:HB	1:i:511:ILE:HD13	1.96	0.47
1:A:531:LEU:HD13	1:A:561:TYR:CE1	2.50	0.47
1:C:429:GLN:HB3	1:C:433:GLN:HE22	1.79	0.47
1:C:481:TYR:HE2	1:C:576:LEU:HD21	1.78	0.47
1:C:541:PHE:CE2	1:C:543:MET:HB2	2.50	0.47
1:G:162:LEU:HD12	1:G:304:ALA:HB1	1.97	0.47
1:G:165:ARG:HH12	1:K:560:ARG:CD	2.28	0.47
1:J:196:TYR:CE2	1:J:209:LEU:HB2	2.50	0.47
1:J:273:ASP:OD1	1:J:276:GLY:N	2.47	0.47
1:L:592:GLN:HE22	1:L:596:ALA:HB3	1.79	0.47
1:U:554:ARG:NH2	1:X:313:GLU:O	2.42	0.47
1:Y:480:GLN:HG3	1:Z:445:TYR:CZ	2.50	0.47
1:e:375:ARG:HD3	1:e:563:ASN:ND2	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:g:339:LYS:HD3	1:g:551:ARG:HD3	1.97	0.47
1:C:57:TRP:HB3	1:C:317:LEU:HB2	1.96	0.47
1:D:208:GLN:NE2	1:D:209:LEU:O	2.47	0.47
1:D:480:GLN:HG3	1:D:481:TYR:CE1	2.50	0.47
1:D:541:PHE:HE2	1:D:543:MET:HB2	1.80	0.47
1:D:542:ASN:HA	1:D:551:ARG:HH12	1.80	0.47
1:E:177:LYS:HE3	1:E:231:LEU:HD22	1.97	0.47
1:G:219:GLU:H	1:G:241:ARG:NH1	2.13	0.47
1:G:477:ARG:NH1	1:H:446:THR:HA	2.25	0.47
1:I:210:LYS:HD2	1:I:210:LYS:HA	1.71	0.47
1:J:107:PHE:HE1	1:J:144:LEU:HD21	1.80	0.47
1:J:200:ARG:HE	1:e:324:LYS:HG2	1.79	0.47
1:J:484:ILE:HD13	1:J:489:ARG:C	2.40	0.47
1:L:544:ILE:HG23	1:L:544:ILE:O	2.15	0.47
1:M:55:LEU:HD13	1:M:320:SER:HA	1.97	0.47
1:M:593:VAL:O	1:Q:592:GLN:HG3	2.15	0.47
1:O:250:GLY:HA2	1:O:261:THR:HA	1.95	0.47
1:O:478:LEU:N	1:O:479:PRO:HD3	2.30	0.47
1:V:79:GLN:OE1	1:V:391:ILE:N	2.48	0.47
1:X:541:PHE:HE2	1:X:543:MET:HB2	1.80	0.47
1:b:53:ARG:NH1	1:b:55:LEU:HD11	2.30	0.47
1:e:169:LYS:HE2	1:e:170:GLN:HE22	1.79	0.47
1:h:157:THR:HG23	1:h:159:THR:H	1.79	0.47
1:D:169:LYS:HB2	1:D:301:SER:OG	2.14	0.47
1:E:57:TRP:HZ2	1:E:60:TRP:HB3	1.79	0.47
1:E:402:GLN:OE1	1:E:402:GLN:N	2.40	0.47
1:G:336:VAL:HG13	1:H:315:GLY:HA3	1.97	0.47
1:H:447:ALA:O	1:H:451:THR:HG22	2.14	0.47
1:J:560:ARG:HH12	1:K:165:ARG:NH2	1.97	0.47
1:N:97:VAL:HG23	1:N:125:PHE:HB2	1.96	0.47
1:N:219:GLU:HB2	1:N:236:PHE:HA	1.96	0.47
1:P:330:PRO:HG3	1:Q:165:ARG:HE	1.80	0.47
1:R:423:LEU:HD21	1:R:586:LEU:HD21	1.97	0.47
1:T:146:GLN:HG3	1:T:146:GLN:O	2.14	0.47
1:U:366:ASN:ND2	1:X:83:ASP:O	2.48	0.47
1:U:464:ARG:HG3	1:U:466:PRO:HD3	1.97	0.47
1:Z:249:ASP:OD1	1:Z:250:GLY:N	2.47	0.47
1:Z:538:LEU:HD23	1:Z:538:LEU:H	1.80	0.47
1:a:218:GLY:HA2	1:a:241:ARG:NE	2.30	0.47
1:a:241:ARG:HG3	1:a:241:ARG:HH11	1.80	0.47
1:b:57:TRP:CH2	1:b:59:GLY:HA2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:106:GLN:HE22	1:e:133:SER:HA	1.80	0.47
1:e:238:LEU:HB3	1:e:240:TYR:HE1	1.80	0.47
1:e:268:LEU:HD23	1:e:268:LEU:H	1.80	0.47
1:f:51:ILE:HD11	1:f:400:VAL:HB	1.96	0.47
1:g:212:HIS:HB3	1:g:247:LYS:NZ	2.30	0.47
1:j:61:THR:OG1	1:j:69:LYS:HA	2.15	0.47
1:C:375:ARG:HH11	1:C:375:ARG:HA	1.80	0.46
1:C:560:ARG:HH12	1:D:165:ARG:CZ	2.28	0.46
1:D:128:ASN:OD1	1:D:129:PHE:N	2.45	0.46
1:D:347:LYS:HG3	1:D:348:THR:HG23	1.96	0.46
1:E:524:HIS:CG	1:E:525:PRO:HD2	2.50	0.46
1:H:275:GLU:OE1	1:H:277:LYS:HG2	2.15	0.46
1:J:199:THR:HB	1:J:208:GLN:HG3	1.97	0.46
1:J:439:LYS:NZ	1:L:580:ILE:O	2.48	0.46
1:N:53:ARG:HH21	1:N:55:LEU:HD11	1.79	0.46
1:N:91:SER:HA	1:N:120:GLN:HE21	1.79	0.46
1:Q:268:LEU:HD13	1:Q:293:LEU:HD23	1.97	0.46
1:R:204:PHE:CD2	1:R:205:ARG:HG3	2.50	0.46
1:U:344:GLU:N	1:U:344:GLU:OE2	2.47	0.46
1:X:420:LEU:HD11	1:X:431:ASP:HB3	1.96	0.46
1:Y:387:VAL:HG23	1:Y:389:HIS:CE1	2.51	0.46
1:Z:36:ARG:HB3	1:Z:527:GLN:NE2	2.29	0.46
1:a:133:SER:OG	1:a:261:THR:O	2.20	0.46
1:b:68:GLU:N	1:b:68:GLU:OE1	2.48	0.46
1:d:279:ILE:HG21	1:d:286:VAL:HG21	1.97	0.46
1:d:428:LYS:O	1:d:432:ILE:HG13	2.14	0.46
1:e:156:MET:SD	1:e:156:MET:N	2.88	0.46
1:e:305:ARG:HH12	1:i:332:LEU:HA	1.79	0.46
1:g:339:LYS:HD2	1:g:349:TYR:CD1	2.45	0.46
1:A:249:ASP:OD1	1:A:250:GLY:N	2.48	0.46
1:A:547:GLN:HB2	1:A:548:ARG:HH21	1.80	0.46
1:A:548:ARG:NH2	1:e:153:LYS:HE3	2.30	0.46
1:B:138:GLY:N	1:J:69:LYS:NZ	2.63	0.46
1:E:565:LEU:HD12	1:E:566:PRO:HD2	1.96	0.46
1:G:474:THR:O	1:G:501:ARG:HA	2.14	0.46
1:H:172:LEU:HD21	1:H:183:LEU:HD22	1.98	0.46
1:H:491:VAL:HG21	1:H:497:TYR:HB3	1.96	0.46
1:J:40:VAL:HG13	1:J:534:ILE:HG13	1.98	0.46
1:J:381:SER:HA	1:K:220:GLU:OE2	2.15	0.46
1:K:105:GLU:OE2	1:K:106:GLN:NE2	2.48	0.46
1:K:177:LYS:HE2	1:K:231:LEU:HD22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:54:ASN:C	1:L:55:LEU:HD12	2.40	0.46
1:L:429:GLN:HA	1:L:432:ILE:HG22	1.98	0.46
1:L:583:ARG:HE	1:L:583:ARG:HA	1.81	0.46
1:R:491:VAL:HG21	1:R:497:TYR:HB3	1.97	0.46
1:T:355:LEU:HD21	1:T:555:LEU:HD22	1.96	0.46
1:T:477:ARG:NH2	1:T:509:ASP:OD1	2.48	0.46
1:U:536:GLU:HG3	1:U:558:ARG:CG	2.46	0.46
1:Z:215:LEU:O	1:Z:244:LEU:HB2	2.14	0.46
1:a:75:ARG:HE	1:a:86:THR:HG1	1.59	0.46
1:a:439:LYS:HD2	1:a:443:MET:HE2	1.97	0.46
1:b:36:ARG:HH22	1:b:518:PRO:HA	1.80	0.46
1:b:420:LEU:HD11	1:b:431:ASP:CG	2.40	0.46
1:d:191:ASP:HB3	1:d:194:ALA:HB2	1.98	0.46
1:d:331:THR:HA	1:d:558:ARG:HG2	1.97	0.46
1:e:448:ASP:OD2	1:e:449:GLN:N	2.48	0.46
1:g:169:LYS:HG2	1:g:170:GLN:HG3	1.98	0.46
1:i:471:ALA:HB2	1:i:516:ILE:HD13	1.97	0.46
1:j:138:GLY:HA3	1:j:260:ASP:OD1	2.14	0.46
1:C:33:LEU:HD21	1:C:471:ALA:HB1	1.97	0.46
1:D:362:GLN:HE21	1:D:363:GLN:CD	2.23	0.46
1:E:77:ILE:O	1:E:80:GLY:N	2.39	0.46
1:E:108:ILE:HG22	1:E:131:LYS:HD3	1.97	0.46
1:G:439:LYS:HD3	1:K:581:ALA:HB2	1.96	0.46
1:J:28:HIS:N	1:J:364:MET:SD	2.89	0.46
1:K:115:ALA:HB1	1:K:126:ASP:HB3	1.96	0.46
1:K:352:LEU:HD13	1:K:538:LEU:HD11	1.96	0.46
1:Q:134:GLU:HG2	1:Q:135:ASN:N	2.31	0.46
1:Q:382:TYR:HB3	1:Q:397:LEU:HD21	1.97	0.46
1:S:308:ASN:HD21	1:S:312:LEU:HB2	1.80	0.46
1:U:478:LEU:O	1:U:481:TYR:N	2.32	0.46
1:V:588:VAL:HG22	1:W:589:ASN:O	2.16	0.46
1:d:106:GLN:N	1:d:106:GLN:OE1	2.47	0.46
1:h:177:LYS:HB3	1:h:231:LEU:HD22	1.96	0.46
1:j:367:ASN:HB3	1:j:561:TYR:CE2	2.50	0.46
1:B:548:ARG:HG2	1:Z:310:ASN:HD21	1.80	0.46
1:D:440:ILE:HB	1:D:513:MET:HE1	1.97	0.46
1:E:443:MET:SD	1:E:569:LEU:HD13	2.56	0.46
1:I:285:ARG:HG3	1:I:286:VAL:H	1.80	0.46
1:J:158:PHE:HB3	1:e:60:TRP:CE3	2.50	0.46
1:J:163:ASP:CG	1:J:165:ARG:H	2.24	0.46
1:P:196:TYR:CZ	1:P:209:LEU:HB2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:204:PHE:CD2	1:P:205:ARG:HG3	2.51	0.46
1:P:477:ARG:HH22	1:P:576:LEU:HD22	1.80	0.46
1:R:53:ARG:HD3	1:R:323:GLN:OE1	2.14	0.46
1:U:337:ILE:HG21	1:U:349:TYR:CE1	2.50	0.46
1:Y:134:GLU:HG2	1:Y:135:ASN:H	1.80	0.46
1:Y:325:GLN:OE1	1:Z:193:TYR:OH	2.18	0.46
1:a:593:VAL:O	1:a:594:THR:HG23	2.15	0.46
1:b:592:GLN:HE21	1:c:594:THR:HG22	1.81	0.46
1:d:131:LYS:HG2	1:d:132:PHE:N	2.29	0.46
1:d:440:ILE:HD11	1:d:513:MET:CG	2.46	0.46
1:d:447:ALA:O	1:d:451:THR:HG22	2.14	0.46
1:d:565:LEU:HD12	1:d:566:PRO:HD2	1.97	0.46
1:e:330:PRO:HB2	1:f:305:ARG:HH22	1.79	0.46
1:h:346:ASP:OD2	1:h:347:LYS:NZ	2.48	0.46
1:h:423:LEU:HD21	1:j:423:LEU:HD23	1.97	0.46
1:h:427:ALA:O	1:h:430:THR:OG1	2.28	0.46
1:j:541:PHE:CE2	1:j:543:MET:HB2	2.51	0.46
1:j:543:MET:SD	1:j:545:ARG:HB2	2.55	0.46
1:A:365:ARG:HH12	1:B:81:LEU:HA	1.77	0.46
1:A:417:LEU:HB3	1:A:575:ASN:ND2	2.31	0.46
1:C:236:PHE:C	1:C:239:GLY:H	2.23	0.46
1:C:504:ASP:OD1	1:C:506:ARG:NH2	2.49	0.46
1:G:277:LYS:CE	1:K:390:PRO:HG2	2.44	0.46
1:G:336:VAL:HG12	1:G:554:ARG:CZ	2.46	0.46
1:G:336:VAL:HG12	1:G:554:ARG:NH1	2.31	0.46
1:I:53:ARG:NE	1:I:55:LEU:HD11	2.25	0.46
1:J:153:LYS:CD	1:L:545:ARG:HH22	2.27	0.46
1:L:66:SER:OG	1:L:67:GLY:N	2.49	0.46
1:L:327:PHE:O	1:L:328:MET:HE2	2.15	0.46
1:L:365:ARG:HD2	1:L:502:ILE:HD11	1.97	0.46
1:Q:574:ILE:HD12	1:Q:575:ASN:ND2	2.31	0.46
1:R:203:ASN:OD1	1:R:204:PHE:N	2.43	0.46
1:T:383:LEU:HD22	1:T:389:HIS:CE1	2.49	0.46
1:U:241:ARG:HE	1:U:272:PHE:HD2	1.63	0.46
1:V:196:TYR:CE1	1:V:209:LEU:HD22	2.50	0.46
1:W:238:LEU:C	1:W:274:LYS:HZ3	2.20	0.46
1:W:336:VAL:HG21	1:W:554:ARG:NH2	2.31	0.46
1:Z:589:ASN:O	1:Z:591:THR:HG23	2.15	0.46
1:a:332:LEU:HD22	1:a:559:TYR:CE1	2.50	0.46
1:c:531:LEU:HD13	1:c:561:TYR:CE1	2.51	0.46
1:d:57:TRP:CZ3	1:d:59:GLY:HA2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:308:ASN:ND2	1:h:313:GLU:HG2	2.31	0.46
1:B:541:PHE:CE2	1:B:543:MET:HB2	2.49	0.46
1:E:36:ARG:HH22	1:E:518:PRO:HA	1.80	0.46
1:H:196:TYR:CE1	1:H:209:LEU:HB2	2.50	0.46
1:I:184:PHE:CE1	1:I:223:THR:HG22	2.50	0.46
1:J:397:LEU:N	1:K:192:GLN:HE22	2.13	0.46
1:L:212:HIS:ND1	1:L:212:HIS:O	2.48	0.46
1:N:76:ASN:OD1	1:N:77:ILE:N	2.49	0.46
1:O:172:LEU:HD22	1:O:298:VAL:HB	1.97	0.46
1:O:474:THR:HG23	1:O:479:PRO:HG3	1.96	0.46
1:P:588:VAL:HG21	1:Q:588:VAL:HG13	1.97	0.46
1:Q:589:ASN:O	1:Q:589:ASN:OD1	2.33	0.46
1:R:219:GLU:HA	1:R:236:PHE:CE1	2.50	0.46
1:U:143:MET:HE2	1:U:143:MET:HB2	1.79	0.46
1:U:433:GLN:HG2	1:U:481:TYR:O	2.16	0.46
1:V:314:MET:HE3	1:V:317:LEU:HD21	1.96	0.46
1:V:457:LEU:HD12	1:V:466:PRO:HG2	1.97	0.46
1:X:273:ASP:OD1	1:X:276:GLY:N	2.40	0.46
1:X:349:TYR:OH	1:X:352:LEU:HD23	2.16	0.46
1:Z:40:VAL:HG11	1:Z:329:ILE:HD13	1.98	0.46
1:Z:480:GLN:HG3	1:a:445:TYR:CE2	2.51	0.46
1:a:129:PHE:CD2	1:a:172:LEU:HD22	2.51	0.46
1:e:53:ARG:HD2	1:e:55:LEU:HD21	1.96	0.46
1:g:308:ASN:HD22	1:g:311:GLN:HA	1.80	0.46
1:B:76:ASN:HD22	1:B:391:ILE:HD13	1.80	0.46
1:H:152:LYS:HE2	1:H:152:LYS:HB3	1.78	0.46
1:H:477:ARG:HG2	1:I:449:GLN:HG3	1.98	0.46
1:I:31:ALA:HB3	1:I:364:MET:HG3	1.97	0.46
1:J:338:VAL:HG11	1:R:158:PHE:CE2	2.50	0.46
1:L:544:ILE:HG22	1:i:544:ILE:HG21	1.97	0.46
1:N:337:ILE:HG22	1:N:553:ILE:HB	1.96	0.46
1:O:374:ASN:HA	1:O:377:ASP:OD1	2.15	0.46
1:P:583:ARG:HD3	1:Q:419:ASP:HA	1.97	0.46
1:Q:548:ARG:HA	1:Q:548:ARG:HD2	1.69	0.46
1:R:547:GLN:C	1:R:548:ARG:HD3	2.41	0.46
1:S:212:HIS:CD2	1:S:247:LYS:HD3	2.51	0.46
1:T:153:LYS:CE	1:T:312:LEU:HD22	2.46	0.46
1:Y:48:GLN:NE2	1:Y:325:GLN:O	2.49	0.46
1:f:590:GLU:OE2	1:f:592:GLN:N	2.49	0.46
1:i:440:ILE:HD11	1:i:513:MET:HG2	1.98	0.46
1:j:182:GLU:OE1	1:j:229:SER:OG	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:548:ARG:HH22	1:e:312:LEU:HD21	1.81	0.46
1:D:158:PHE:CZ	1:Y:61:THR:HB	2.51	0.46
1:D:443:MET:HE2	1:D:569:LEU:HD12	1.98	0.46
1:G:327:PHE:O	1:G:328:MET:HE2	2.16	0.46
1:I:330:PRO:CB	1:L:305:ARG:HH21	2.28	0.46
1:I:474:THR:HG23	1:I:479:PRO:HG3	1.98	0.46
1:J:201:GLU:OE1	1:f:210:LYS:HB3	2.16	0.46
1:J:511:ILE:HB	1:J:571:ILE:HB	1.98	0.46
1:K:309:ILE:O	1:K:309:ILE:HG22	2.16	0.46
1:N:196:TYR:CE1	1:N:209:LEU:HB2	2.51	0.46
1:O:260:ASP:OD1	1:O:261:THR:N	2.49	0.46
1:P:207:MET:N	1:P:252:MET:O	2.46	0.46
1:Y:138:GLY:HA3	1:Y:260:ASP:HB3	1.98	0.46
1:Y:442:GLU:OE1	1:c:577:GLU:HA	2.15	0.46
1:a:201:GLU:OE1	1:a:202:TYR:HB2	2.16	0.46
1:a:423:LEU:HD23	1:a:423:LEU:H	1.81	0.46
1:c:410:ASN:ND2	1:c:443:MET:SD	2.88	0.46
1:d:467:LYS:NZ	1:d:496:ASP:H	2.08	0.46
1:e:539:VAL:HG22	1:e:554:ARG:HB2	1.98	0.46
1:f:113:LEU:HD12	1:f:114:PRO:HD2	1.98	0.46
1:g:196:TYR:CE1	1:g:209:LEU:HD22	2.51	0.46
1:h:442:GLU:OE2	1:j:577:GLU:HA	2.16	0.46
1:h:543:MET:HE3	1:h:545:ARG:HH22	1.80	0.46
1:A:211:PHE:HB3	1:A:248:VAL:HB	1.98	0.46
1:D:175:VAL:HG12	1:D:231:LEU:HD12	1.97	0.46
1:G:313:GLU:OE1	1:K:334:PRO:HG2	2.16	0.46
1:G:433:GLN:CD	1:G:484:ILE:HA	2.41	0.46
1:I:94:LEU:HD21	1:I:306:LEU:HD13	1.98	0.46
1:I:131:LYS:HZ3	1:I:132:PHE:HB2	1.81	0.46
1:K:199:THR:HG22	1:K:208:GLN:HG2	1.96	0.46
1:N:219:GLU:HA	1:N:236:PHE:HD1	1.81	0.46
1:P:513:MET:HE2	1:P:571:ILE:HD11	1.97	0.46
1:T:106:GLN:N	1:T:106:GLN:OE1	2.49	0.46
1:T:511:ILE:HB	1:T:571:ILE:HB	1.96	0.46
1:W:247:LYS:HE3	1:W:265:ALA:HB3	1.96	0.46
1:Y:197:THR:O	1:Y:208:GLN:N	2.46	0.46
1:Y:365:ARG:HE	1:Y:502:ILE:HD11	1.80	0.46
1:Z:422:ASN:HD21	1:Z:428:LYS:HA	1.80	0.46
1:b:464:ARG:O	1:b:466:PRO:HD3	2.15	0.46
1:e:245:ASP:HB2	1:e:247:LYS:NZ	2.31	0.46
1:e:305:ARG:NH1	1:i:333:PRO:HD3	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:457:LEU:HD11	1:f:517:LEU:HD21	1.98	0.46
1:f:588:VAL:HG12	1:g:589:ASN:O	2.16	0.46
1:g:163:ASP:OD1	1:g:164:SER:N	2.49	0.46
1:j:53:ARG:O	1:j:320:SER:OG	2.26	0.46
1:B:188:VAL:HG22	1:B:194:ALA:HB2	1.98	0.46
1:C:196:TYR:HB3	1:C:207:MET:CG	2.43	0.46
1:E:171:LEU:HG	1:E:188:VAL:HG21	1.98	0.46
1:H:183:LEU:O	1:H:223:THR:OG1	2.26	0.46
1:H:590:GLU:HG2	1:H:592:GLN:H	1.81	0.46
1:J:391:ILE:H	1:J:391:ILE:HD12	1.80	0.46
1:K:469:HIS:CD2	1:K:496:ASP:HB2	2.51	0.46
1:M:98:ILE:HG21	1:M:126:ASP:HB2	1.98	0.46
1:O:588:VAL:HG21	1:R:588:VAL:HB	1.98	0.46
1:Q:200:ARG:NH2	1:T:198:ALA:O	2.48	0.46
1:S:313:GLU:N	1:S:313:GLU:OE2	2.49	0.46
1:S:543:MET:HG2	1:S:545:ARG:NH2	2.30	0.46
1:V:48:GLN:HA	1:V:325:GLN:O	2.16	0.46
1:W:400:VAL:HG13	1:W:525:PRO:HA	1.98	0.46
1:Y:483:GLN:HE22	1:Y:485:ASN:CG	2.24	0.46
1:Y:587:ASP:OD1	1:Z:589:ASN:ND2	2.49	0.46
1:Z:62:GLY:HA3	1:i:156:MET:HG3	1.97	0.46
1:Z:328:MET:HE1	1:a:164:SER:O	2.16	0.46
1:a:337:ILE:HD11	1:a:350:PRO:HD2	1.98	0.46
1:b:433:GLN:HE22	1:b:488:ASP:HB3	1.80	0.46
1:c:206:LEU:O	1:c:207:MET:HE2	2.15	0.46
1:c:314:MET:HA	1:c:314:MET:HE2	1.97	0.46
1:c:514:THR:OG1	1:c:515:PHE:N	2.49	0.46
1:e:281:LEU:HA	1:e:286:VAL:HG11	1.97	0.46
1:e:419:ASP:HA	1:i:583:ARG:HD3	1.98	0.46
1:e:580:ILE:HG13	1:f:442:GLU:HG3	1.97	0.46
1:e:593:VAL:HG12	1:i:592:GLN:HG2	1.96	0.46
1:f:330:PRO:CB	1:g:165:ARG:HD3	2.45	0.46
1:f:479:PRO:HG2	1:f:501:ARG:CG	2.46	0.46
1:g:57:TRP:CZ3	1:g:72:ILE:HG21	2.51	0.46
1:g:391:ILE:HG22	1:g:392:GLU:OE1	2.17	0.46
1:h:169:LYS:HG3	1:h:170:GLN:CD	2.41	0.46
1:i:45:ALA:O	1:i:329:ILE:HG22	2.16	0.46
1:C:477:ARG:HB2	1:D:449:GLN:OE1	2.16	0.45
1:D:29:GLU:HA	1:D:32:GLU:OE2	2.16	0.45
1:G:208:GLN:HG2	1:R:210:LYS:NZ	2.31	0.45
1:G:251:GLU:OE2	1:R:212:HIS:NE2	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:361:ILE:O	1:H:365:ARG:HB3	2.17	0.45
1:L:62:GLY:H	1:L:63:GLU:CD	2.23	0.45
1:N:464:ARG:NH2	1:N:466:PRO:HA	2.23	0.45
1:O:580:ILE:HD11	1:R:438:SER:HB3	1.97	0.45
1:P:212:HIS:CE1	1:P:247:LYS:HB2	2.50	0.45
1:Q:242:ILE:HD13	1:Q:271:VAL:HG22	1.98	0.45
1:T:455:ALA:O	1:T:458:GLU:HG3	2.17	0.45
1:U:504:ASP:OD2	1:U:505:LEU:N	2.49	0.45
1:W:392:GLU:OE2	1:W:403:TYR:HA	2.15	0.45
1:X:201:GLU:OE1	1:Y:210:LYS:HD2	2.16	0.45
1:Y:196:TYR:CZ	1:Y:209:LEU:HB2	2.51	0.45
1:Y:332:LEU:HD13	1:Y:558:ARG:HA	1.97	0.45
1:Z:98:ILE:HD13	1:Z:107:PHE:CD2	2.51	0.45
1:c:543:MET:O	1:c:544:ILE:HD13	2.16	0.45
1:e:242:ILE:HD11	1:e:290:LEU:HD21	1.98	0.45
1:e:583:ARG:NE	1:f:421:ASN:OD1	2.44	0.45
1:f:192:GLN:HB2	1:f:193:TYR:CD1	2.51	0.45
1:h:391:ILE:HG22	1:h:392:GLU:HG2	1.99	0.45
1:i:273:ASP:OD1	1:i:276:GLY:N	2.48	0.45
1:j:62:GLY:HA3	1:j:69:LYS:NZ	2.31	0.45
1:j:508:LYS:HA	1:j:508:LYS:HD2	1.66	0.45
1:A:143:MET:HE1	1:R:67:GLY:O	2.16	0.45
1:B:428:LYS:O	1:B:432:ILE:HG12	2.16	0.45
1:C:476:MET:CE	1:D:449:GLN:HA	2.46	0.45
1:E:72:ILE:HB	1:E:74:LYS:HZ3	1.81	0.45
1:J:508:LYS:HA	1:J:508:LYS:HD3	1.63	0.45
1:K:196:TYR:CG	1:K:209:LEU:HB2	2.51	0.45
1:K:212:HIS:CE1	1:K:247:LYS:HB2	2.51	0.45
1:L:84:TYR:CD2	1:L:85:THR:HG23	2.51	0.45
1:N:336:VAL:HG23	1:O:317:LEU:HD13	1.99	0.45
1:N:437:VAL:HG12	1:N:441:ASN:HD21	1.80	0.45
1:P:80:GLY:HA3	1:P:87:LEU:HD23	1.98	0.45
1:T:524:HIS:HB3	1:T:527:GLN:HG3	1.98	0.45
1:V:245:ASP:OD2	1:V:267:ARG:NH2	2.49	0.45
1:W:314:MET:HE3	1:W:317:LEU:HD21	1.97	0.45
1:X:214:SER:HA	1:X:245:ASP:HA	1.97	0.45
1:X:364:MET:HG2	1:X:365:ARG:HH22	1.80	0.45
1:X:365:ARG:HD3	1:X:502:ILE:HD11	1.99	0.45
1:a:143:MET:O	1:a:143:MET:HG2	2.16	0.45
1:a:243:GLU:HB2	1:a:270:ARG:HB2	1.98	0.45
1:c:568:MET:HE3	1:c:568:MET:HB2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:590:GLU:H	1:c:590:GLU:CD	2.25	0.45
1:e:140:ASN:HA	1:e:257:GLY:O	2.16	0.45
1:e:382:TYR:HA	1:f:241:ARG:HH12	1.81	0.45
1:f:177:LYS:HZ3	1:f:293:LEU:N	2.15	0.45
1:f:588:VAL:CG1	1:g:590:GLU:HA	2.46	0.45
1:g:375:ARG:HH21	1:g:379:LEU:HD21	1.81	0.45
1:h:330:PRO:HB3	1:i:165:ARG:HB3	1.98	0.45
1:i:244:LEU:HD13	1:i:268:LEU:HA	1.98	0.45
1:i:359:TYR:CE2	1:i:557:PRO:HB3	2.51	0.45
1:i:513:MET:SD	1:i:569:LEU:HB2	2.56	0.45
1:B:107:PHE:HE2	1:B:144:LEU:HD21	1.80	0.45
1:B:362:GLN:HG3	1:C:87:LEU:HB3	1.98	0.45
1:C:144:LEU:HD23	1:C:144:LEU:HA	1.80	0.45
1:D:437:VAL:HA	1:D:440:ILE:HG12	1.97	0.45
1:G:527:GLN:NE2	1:G:529:GLY:H	2.14	0.45
1:G:555:LEU:HD12	1:G:557:PRO:HD3	1.98	0.45
1:I:426:ALA:HB2	1:L:431:ASP:HA	1.98	0.45
1:I:453:TYR:CZ	1:I:457:LEU:HD21	2.51	0.45
1:J:251:GLU:OE2	1:f:247:LYS:NZ	2.50	0.45
1:J:513:MET:N	1:J:569:LEU:O	2.42	0.45
1:M:275:GLU:HB3	1:M:277:LYS:NZ	2.32	0.45
1:R:352:LEU:HD23	1:R:538:LEU:HD21	1.98	0.45
1:T:330:PRO:HG3	1:U:165:ARG:CD	2.46	0.45
1:T:339:LYS:HE2	1:T:551:ARG:HH21	1.82	0.45
1:X:359:TYR:CE1	1:X:557:PRO:HB3	2.48	0.45
1:Y:212:HIS:ND1	1:Y:247:LYS:HG2	2.30	0.45
1:Z:266:LEU:C	1:Z:267:ARG:HG3	2.42	0.45
1:a:200:ARG:HA	1:h:324:LYS:NZ	2.30	0.45
1:b:424:THR:HG22	1:b:426:ALA:H	1.81	0.45
1:c:308:ASN:ND2	1:c:312:LEU:H	2.15	0.45
1:h:449:GLN:NE2	1:j:475:ASP:HB2	2.31	0.45
1:i:531:LEU:HD13	1:i:561:TYR:CE1	2.51	0.45
1:j:477:ARG:HH22	1:j:577:GLU:HG3	1.81	0.45
1:A:339:LYS:HD2	1:A:340:PRO:N	2.31	0.45
1:B:143:MET:HE1	1:J:67:GLY:H	1.81	0.45
1:B:362:GLN:HB2	1:C:87:LEU:HD13	1.99	0.45
1:B:429:GLN:HG2	1:B:481:TYR:CE1	2.51	0.45
1:C:336:VAL:HG21	1:D:314:MET:SD	2.56	0.45
1:C:545:ARG:HG3	1:C:546:ASN:H	1.82	0.45
1:G:331:THR:O	1:H:305:ARG:HD2	2.16	0.45
1:H:422:ASN:HD22	1:H:584:THR:HG21	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:538:LEU:HD23	1:K:538:LEU:H	1.82	0.45
1:L:147:THR:OG1	1:L:150:ARG:HG2	2.16	0.45
1:M:437:VAL:HG23	1:M:491:VAL:HG23	1.98	0.45
1:O:479:PRO:HB2	1:O:501:ARG:NH2	2.32	0.45
1:Q:331:THR:HG23	1:Q:558:ARG:HG2	1.98	0.45
1:R:534:ILE:HG21	1:R:558:ARG:HH12	1.80	0.45
1:W:189:ASN:OD1	1:W:190:ARG:N	2.45	0.45
1:Y:48:GLN:NE2	1:Y:324:LYS:HB2	2.31	0.45
1:Y:83:ASP:OD2	1:Y:84:TYR:N	2.41	0.45
1:Y:439:LYS:NZ	1:Y:443:MET:HE3	2.32	0.45
1:Z:113:LEU:HD12	1:Z:114:PRO:HD2	1.97	0.45
1:b:590:GLU:O	1:c:593:VAL:HG23	2.16	0.45
1:c:196:TYR:CD1	1:c:209:LEU:HB2	2.51	0.45
1:h:219:GLU:HG2	1:h:236:PHE:HB3	1.98	0.45
1:i:140:ASN:HD22	1:i:143:MET:HG2	1.81	0.45
1:i:250:GLY:HA3	1:i:261:THR:HG22	1.98	0.45
1:i:329:ILE:HG21	1:i:534:ILE:HD11	1.99	0.45
1:j:337:ILE:HG22	1:j:553:ILE:HB	1.98	0.45
1:j:524:HIS:H	1:j:527:GLN:HG3	1.81	0.45
1:A:375:ARG:NH1	1:A:398:GLU:HB3	2.31	0.45
1:A:420:LEU:HD21	1:A:435:LEU:HD12	1.97	0.45
1:A:472:ILE:HB	1:A:499:ILE:HD13	1.97	0.45
1:B:310:ASN:HA	1:L:548:ARG:NH2	2.31	0.45
1:B:548:ARG:HA	1:Z:310:ASN:OD1	2.17	0.45
1:E:244:LEU:HD13	1:E:268:LEU:HA	1.97	0.45
1:G:235:LEU:HD23	1:G:242:ILE:HD11	1.98	0.45
1:G:320:SER:HB3	1:K:348:THR:O	2.17	0.45
1:J:420:LEU:H	1:L:583:ARG:NH2	2.08	0.45
1:O:240:TYR:HE2	1:O:279:ILE:HG13	1.82	0.45
1:P:146:GLN:HE22	1:P:156:MET:HG2	1.82	0.45
1:P:302:LEU:HD23	1:P:302:LEU:HA	1.86	0.45
1:Q:210:LYS:O	1:T:202:TYR:OH	2.25	0.45
1:Q:422:ASN:OD1	1:Q:428:LYS:HG3	2.16	0.45
1:R:313:GLU:O	1:R:314:MET:HE2	2.16	0.45
1:S:581:ALA:HA	1:T:439:LYS:HZ2	1.81	0.45
1:V:184:PHE:HE1	1:V:223:THR:HG22	1.80	0.45
1:W:411:GLU:OE1	1:W:570:VAL:HB	2.16	0.45
1:Z:29:GLU:H	1:Z:29:GLU:CD	2.24	0.45
1:c:170:GLN:NE2	1:c:186:LEU:O	2.49	0.45
1:c:256:ASN:OD1	1:c:257:GLY:N	2.49	0.45
1:d:390:PRO:HG2	1:d:393:SER:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:514:THR:HG21	1:e:528:HIS:ND1	2.32	0.45
1:f:104:ASP:OD1	1:f:105:GLU:N	2.49	0.45
1:g:422:ASN:ND2	1:g:584:THR:HB	2.32	0.45
1:g:531:LEU:HD11	1:g:559:TYR:HB2	1.98	0.45
1:C:210:LYS:HZ2	1:e:202:TYR:HB2	1.82	0.45
1:H:184:PHE:HB3	1:H:186:LEU:HD13	1.98	0.45
1:M:534:ILE:HB	1:M:558:ARG:HG3	1.98	0.45
1:O:478:LEU:O	1:O:480:GLN:N	2.50	0.45
1:P:208:GLN:HE22	1:P:210:LYS:HB2	1.81	0.45
1:P:394:ASN:H	1:P:402:GLN:NE2	2.14	0.45
1:Q:349:TYR:HD2	1:Q:350:PRO:HD2	1.81	0.45
1:Q:445:TYR:CE1	1:Q:495:TYR:HE2	2.34	0.45
1:R:478:LEU:O	1:R:480:GLN:N	2.50	0.45
1:S:333:PRO:HA	1:S:334:PRO:HD3	1.78	0.45
1:Y:51:ILE:HD11	1:Y:403:TYR:CD2	2.51	0.45
1:Z:192:GLN:HB3	1:Z:193:TYR:CD2	2.51	0.45
1:Z:580:ILE:HG21	1:a:442:GLU:HG2	1.98	0.45
1:a:420:LEU:HD13	1:a:432:ILE:HD13	1.99	0.45
1:a:461:PHE:HB3	1:a:464:ARG:NH1	2.31	0.45
1:e:190:ARG:HH12	1:i:560:ARG:HE	1.65	0.45
1:e:260:ASP:OD1	1:e:260:ASP:N	2.50	0.45
1:i:167:ALA:HB2	1:i:195:ALA:HA	1.98	0.45
1:A:240:TYR:CD2	1:A:273:ASP:HA	2.52	0.45
1:A:251:GLU:O	1:A:260:ASP:N	2.36	0.45
1:A:340:PRO:HB3	1:e:309:ILE:HG21	1.98	0.45
1:A:445:TYR:HE1	1:A:495:TYR:CE2	2.35	0.45
1:B:390:PRO:O	1:B:393:SER:OG	2.29	0.45
1:C:324:LYS:HE3	1:Z:200:ARG:HB2	1.98	0.45
1:C:375:ARG:HE	1:C:563:ASN:CB	2.29	0.45
1:D:541:PHE:CE2	1:D:543:MET:HB2	2.52	0.45
1:G:483:GLN:OE1	1:G:485:ASN:ND2	2.49	0.45
1:G:504:ASP:OD2	1:G:505:LEU:N	2.49	0.45
1:H:93:GLU:OE1	1:H:305:ARG:NE	2.42	0.45
1:H:541:PHE:HE2	1:H:543:MET:HB2	1.81	0.45
1:H:592:GLN:HE22	1:I:594:THR:HA	1.80	0.45
1:I:240:TYR:HE2	1:I:285:ARG:HD3	1.81	0.45
1:J:28:HIS:CG	1:J:29:GLU:H	2.35	0.45
1:L:461:PHE:HE2	1:L:524:HIS:CE1	2.34	0.45
1:O:105:GLU:N	1:O:105:GLU:OE1	2.50	0.45
1:P:480:GLN:HG3	1:Q:445:TYR:CD1	2.51	0.45
1:S:91:SER:HA	1:S:120:GLN:HE21	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:221:SER:O	1:S:227:ALA:HA	2.17	0.45
1:S:380:LYS:HD3	1:S:409:TYR:CE2	2.47	0.45
1:S:511:ILE:HB	1:S:571:ILE:HG22	1.99	0.45
1:U:107:PHE:HE1	1:U:144:LEU:HD21	1.81	0.45
1:U:366:ASN:O	1:U:370:THR:HG23	2.16	0.45
1:U:591:THR:O	1:U:593:VAL:HG23	2.17	0.45
1:X:478:LEU:C	1:X:480:GLN:H	2.22	0.45
1:Z:543:MET:HE1	1:Z:545:ARG:NE	2.30	0.45
1:b:422:ASN:ND2	1:b:584:THR:HG23	2.32	0.45
1:c:55:LEU:HD22	1:c:74:LYS:HB3	1.98	0.45
1:c:212:HIS:HB3	1:c:247:LYS:HE3	1.99	0.45
1:e:235:LEU:HD11	1:e:240:TYR:HB2	1.99	0.45
1:f:420:LEU:HD21	1:f:432:ILE:HA	1.99	0.45
1:j:390:PRO:O	1:j:393:SER:OG	2.32	0.45
1:B:440:ILE:HG23	1:B:513:MET:HE1	1.97	0.45
1:E:193:TYR:HD2	1:E:213:THR:HG22	1.82	0.45
1:E:380:LYS:HD2	1:E:409:TYR:CE1	2.51	0.45
1:G:272:PHE:HE2	1:G:276:GLY:HA2	1.81	0.45
1:G:439:LYS:HE2	1:G:443:MET:HE3	1.99	0.45
1:H:389:HIS:HD2	1:I:241:ARG:HH22	1.64	0.45
1:H:547:GLN:O	1:H:548:ARG:HD2	2.17	0.45
1:J:75:ARG:NE	1:J:86:THR:O	2.50	0.45
1:J:192:GLN:HB2	1:L:325:GLN:OE1	2.16	0.45
1:K:246:VAL:HG22	1:K:266:LEU:HD13	1.98	0.45
1:P:35:TYR:HD1	1:P:529:GLY:HA3	1.81	0.45
1:R:143:MET:HG3	1:R:144:LEU:HD22	1.98	0.45
1:S:49:LEU:H	1:S:324:LYS:NZ	2.15	0.45
1:S:204:PHE:HB3	1:S:205:ARG:NH1	2.31	0.45
1:S:400:VAL:HA	1:S:402:GLN:HE22	1.82	0.45
1:V:479:PRO:O	1:V:482:ILE:HG22	2.17	0.45
1:a:433:GLN:HG2	1:a:484:ILE:HG12	1.99	0.45
1:b:113:LEU:HD12	1:b:114:PRO:HD2	1.99	0.45
1:b:389:HIS:O	1:b:406:ARG:HG3	2.17	0.45
1:b:404:TYR:CD2	1:b:526:LEU:HD11	2.52	0.45
1:b:485:ASN:HB2	1:c:493:ILE:HG21	1.98	0.45
1:e:36:ARG:NH1	1:e:36:ARG:HB2	2.32	0.45
1:f:55:LEU:HD12	1:f:75:ARG:N	2.32	0.45
1:g:196:TYR:CD2	1:g:209:LEU:HB2	2.52	0.45
1:h:587:ASP:H	1:j:583:ARG:NH2	2.11	0.45
1:i:357:THR:O	1:i:361:ILE:HG12	2.16	0.45
1:j:53:ARG:CZ	1:j:55:LEU:HD21	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:j:469:HIS:NE2	1:j:496:ASP:HB2	2.32	0.45
1:A:445:TYR:CE2	1:E:480:GLN:HB3	2.52	0.45
1:B:541:PHE:HZ	1:C:311:GLN:HG2	1.82	0.45
1:C:203:ASN:CG	1:C:204:PHE:H	2.24	0.45
1:C:269:ALA:HB1	1:C:270:ARG:CZ	2.46	0.45
1:G:200:ARG:O	1:G:201:GLU:HB3	2.16	0.45
1:G:204:PHE:HD2	1:O:324:LYS:HZ2	1.64	0.45
1:G:355:LEU:HB3	1:G:555:LEU:HD23	1.99	0.45
1:G:437:VAL:HA	1:G:440:ILE:HG12	1.98	0.45
1:H:200:ARG:NH2	1:H:204:PHE:O	2.50	0.45
1:I:340:PRO:HB3	1:f:309:ILE:HD13	1.99	0.45
1:I:363:GLN:NE2	1:I:531:LEU:HD21	2.30	0.45
1:J:360:ARG:HH21	1:J:364:MET:HE3	1.81	0.45
1:N:524:HIS:CG	1:N:525:PRO:HD2	2.52	0.45
1:Q:28:HIS:CE1	1:Q:29:GLU:HG3	2.51	0.45
1:Q:380:LYS:HD3	1:Q:409:TYR:CE2	2.52	0.45
1:R:191:ASP:OD1	1:R:192:GLN:N	2.50	0.45
1:R:548:ARG:HB3	1:T:310:ASN:ND2	2.24	0.45
1:R:593:VAL:O	1:R:594:THR:HG23	2.16	0.45
1:X:28:HIS:HB3	1:X:364:MET:HE2	1.98	0.45
1:Y:423:LEU:HD13	1:Y:586:LEU:HD11	1.99	0.45
1:Y:593:VAL:HG23	1:c:590:GLU:O	2.17	0.45
1:Z:244:LEU:HD23	1:Z:268:LEU:HA	1.98	0.45
1:Z:397:LEU:HB3	1:Z:402:GLN:HE22	1.82	0.45
1:c:433:GLN:HE22	1:c:483:GLN:H	1.63	0.45
1:c:491:VAL:HG21	1:c:497:TYR:HB3	1.99	0.45
1:f:491:VAL:HG21	1:f:497:TYR:CG	2.52	0.45
1:h:88:GLU:N	1:j:362:GLN:HE22	2.14	0.45
1:h:93:GLU:OE2	1:h:305:ARG:NE	2.50	0.45
1:i:392:GLU:OE2	1:i:403:TYR:HA	2.17	0.45
1:i:398:GLU:C	1:i:402:GLN:HE22	2.25	0.45
1:i:487:ASP:CG	1:i:489:ARG:H	2.25	0.45
1:j:517:LEU:HB2	1:j:527:GLN:OE1	2.16	0.45
1:A:442:GLU:HA	1:E:480:GLN:HE22	1.80	0.45
1:A:504:ASP:OD2	1:A:506:ARG:HB2	2.17	0.45
1:A:545:ARG:HH12	1:B:314:MET:HG3	1.82	0.45
1:B:308:ASN:C	1:B:310:ASN:H	2.24	0.45
1:D:186:LEU:HD11	1:D:217:LEU:HD21	1.98	0.45
1:E:408:TYR:CE2	1:E:447:ALA:HA	2.52	0.45
1:J:399:GLY:HA3	1:J:564:PHE:HA	2.00	0.45
1:K:146:GLN:HB3	1:K:151:LEU:HD21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:337:ILE:HG12	1:K:349:TYR:CZ	2.52	0.45
1:N:505:LEU:HD23	1:O:82:LEU:HB3	1.99	0.45
1:O:134:GLU:H	1:O:134:GLU:CD	2.25	0.45
1:P:583:ARG:HH21	1:Q:587:ASP:HB2	1.82	0.45
1:Q:193:TYR:CG	1:T:202:TYR:HE1	2.35	0.45
1:R:212:HIS:CG	1:R:247:LYS:HE3	2.52	0.45
1:S:543:MET:HE3	1:S:545:ARG:HH22	1.81	0.45
1:U:333:PRO:HD3	1:X:305:ARG:NH2	2.32	0.45
1:V:139:PHE:CE2	1:V:252:MET:HE1	2.52	0.45
1:V:593:VAL:HG23	1:X:590:GLU:O	2.17	0.45
1:W:263:LEU:HD23	1:W:263:LEU:H	1.82	0.45
1:Y:168:LEU:HD11	1:Y:209:LEU:HD21	1.99	0.45
1:Z:212:HIS:CD2	1:Z:247:LYS:HA	2.52	0.45
1:Z:375:ARG:HG3	1:Z:568:MET:SD	2.57	0.45
1:b:205:ARG:HE	1:b:254:VAL:HG21	1.80	0.45
1:c:177:LYS:HD3	1:c:293:LEU:HD22	1.99	0.45
1:d:336:VAL:HB	1:d:554:ARG:HD3	1.99	0.45
1:d:402:GLN:H	1:d:402:GLN:CD	2.25	0.45
1:e:177:LYS:HB3	1:e:231:LEU:HD13	1.99	0.45
1:e:192:GLN:HE22	1:i:396:GLY:N	2.15	0.45
1:e:588:VAL:HG21	1:f:588:VAL:HG23	1.98	0.45
1:g:410:ASN:ND2	1:g:443:MET:HE1	2.31	0.45
1:i:191:ASP:CG	1:i:192:GLN:H	2.25	0.45
1:A:102:GLU:HB3	1:R:66:SER:HB2	1.99	0.44
1:A:334:PRO:HG3	1:B:308:ASN:HD21	1.83	0.44
1:A:379:LEU:HD12	1:A:568:MET:HE3	1.98	0.44
1:C:427:ALA:O	1:C:430:THR:OG1	2.31	0.44
1:C:505:LEU:HD22	1:C:508:LYS:NZ	2.32	0.44
1:G:200:ARG:NH2	1:R:198:ALA:O	2.49	0.44
1:I:60:TRP:CH2	1:I:63:GLU:HA	2.52	0.44
1:I:541:PHE:CE2	1:I:543:MET:HB2	2.52	0.44
1:J:76:ASN:OD1	1:J:78:LEU:HB2	2.17	0.44
1:J:489:ARG:HD2	1:J:492:GLY:HA2	2.00	0.44
1:L:44:GLN:HG3	1:L:46:GLY:H	1.81	0.44
1:L:86:THR:HG23	1:L:87:LEU:H	1.82	0.44
1:L:196:TYR:CD1	1:L:209:LEU:HB2	2.52	0.44
1:M:338:VAL:HG11	1:N:60:TRP:CE2	2.52	0.44
1:Q:339:LYS:HD2	1:Q:349:TYR:HD1	1.80	0.44
1:S:60:TRP:CD1	1:S:60:TRP:H	2.35	0.44
1:V:196:TYR:CE2	1:V:209:LEU:HB2	2.52	0.44
1:V:446:THR:HA	1:X:477:ARG:NH2	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:481:TYR:CE1	1:W:576:LEU:HD21	2.50	0.44
1:d:337:ILE:HG22	1:d:553:ILE:HB	1.99	0.44
1:e:62:GLY:HA3	1:e:70:GLN:HE22	1.81	0.44
1:g:83:ASP:OD1	1:g:84:TYR:N	2.45	0.44
1:i:79:GLN:HB2	1:i:391:ILE:HD11	1.99	0.44
1:j:511:ILE:HB	1:j:571:ILE:HB	1.99	0.44
1:D:428:LYS:O	1:D:432:ILE:HG12	2.17	0.44
1:E:55:LEU:HA	1:E:76:ASN:HA	1.99	0.44
1:H:477:ARG:NH2	1:H:509:ASP:OD1	2.51	0.44
1:H:521:SER:OG	1:H:522:GLU:OE2	2.27	0.44
1:J:489:ARG:HD3	1:J:493:ILE:HG13	1.99	0.44
1:K:57:TRP:HZ3	1:K:60:TRP:HA	1.80	0.44
1:K:575:ASN:HB3	1:K:578:GLU:OE2	2.17	0.44
1:N:28:HIS:HB3	1:N:364:MET:HG2	2.00	0.44
1:R:71:GLU:N	1:R:71:GLU:OE2	2.51	0.44
1:R:212:HIS:ND1	1:R:247:LYS:HE3	2.32	0.44
1:R:339:LYS:HE3	1:R:551:ARG:HH21	1.82	0.44
1:S:103:ASN:OD1	1:S:143:MET:HE1	2.17	0.44
1:V:591:THR:HG21	1:X:587:ASP:HB3	1.98	0.44
1:X:149:SER:O	1:X:153:LYS:HG2	2.17	0.44
1:Y:431:ASP:OD1	1:c:424:THR:HG23	2.16	0.44
1:Y:531:LEU:HD13	1:Y:561:TYR:CE1	2.52	0.44
1:Z:62:GLY:HA2	1:Z:70:GLN:NE2	2.25	0.44
1:a:86:THR:HG23	1:a:87:LEU:CD2	2.47	0.44
1:b:380:LYS:HG3	1:b:409:TYR:CE2	2.47	0.44
1:c:281:LEU:O	1:c:287:SER:HB3	2.16	0.44
1:d:390:PRO:O	1:d:393:SER:OG	2.15	0.44
1:e:383:LEU:HD22	1:e:389:HIS:CD2	2.52	0.44
1:f:337:ILE:HD11	1:f:350:PRO:HD2	1.97	0.44
1:g:93:GLU:HG2	1:g:95:ILE:HG12	2.00	0.44
1:i:36:ARG:HB3	1:i:530:VAL:HG12	1.99	0.44
1:i:140:ASN:ND2	1:i:143:MET:HG2	2.32	0.44
1:i:332:LEU:HD22	1:i:559:TYR:CE1	2.52	0.44
1:A:402:GLN:H	1:A:402:GLN:CD	2.25	0.44
1:B:53:ARG:HD3	1:B:321:ASP:HB3	2.00	0.44
1:B:69:LYS:NZ	1:e:140:ASN:H	2.14	0.44
1:C:219:GLU:HA	1:C:236:PHE:CD1	2.52	0.44
1:D:119:LYS:HZ2	1:D:124:THR:HG1	1.61	0.44
1:D:210:LYS:HE3	1:Z:208:GLN:NE2	2.31	0.44
1:D:530:VAL:HG22	1:D:564:PHE:HE2	1.82	0.44
1:I:97:VAL:HG22	1:I:125:PHE:CD2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:284:SER:OG	1:J:285:ARG:NH1	2.51	0.44
1:J:311:GLN:O	1:J:311:GLN:HG2	2.17	0.44
1:J:335:LEU:HB3	1:J:355:LEU:HD11	1.99	0.44
1:J:339:LYS:HD3	1:J:349:TYR:CD1	2.51	0.44
1:K:60:TRP:CG	1:R:158:PHE:HB3	2.52	0.44
1:N:332:LEU:CB	1:N:557:PRO:HG2	2.46	0.44
1:N:583:ARG:NH1	1:O:421:ASN:OD1	2.50	0.44
1:P:590:GLU:O	1:Q:593:VAL:HG23	2.16	0.44
1:R:560:ARG:HB3	1:R:562:PHE:HE2	1.83	0.44
1:S:142:LEU:HG	1:S:156:MET:HG3	1.99	0.44
1:T:53:ARG:NH1	1:T:55:LEU:HD21	2.32	0.44
1:U:30:PHE:CG	1:U:502:ILE:HD11	2.52	0.44
1:U:184:PHE:CE1	1:U:223:THR:HG22	2.52	0.44
1:W:163:ASP:HB2	1:W:305:ARG:HB2	1.98	0.44
1:X:461:PHE:HB3	1:X:464:ARG:HH21	1.82	0.44
1:Y:592:GLN:NE2	1:Z:595:PRO:HD3	2.32	0.44
1:a:36:ARG:NH1	1:a:36:ARG:HB2	2.33	0.44
1:a:68:GLU:CD	1:a:70:GLN:HE21	2.24	0.44
1:b:507:MET:HE3	1:b:507:MET:HB3	1.91	0.44
1:c:313:GLU:OE1	1:c:313:GLU:N	2.50	0.44
1:c:414:ILE:HD11	1:c:439:LYS:HG2	1.98	0.44
1:d:41:THR:OG1	1:d:42:PRO:HD2	2.17	0.44
1:e:583:ARG:NH2	1:f:420:LEU:O	2.50	0.44
1:f:53:ARG:O	1:f:320:SER:OG	2.30	0.44
1:f:504:ASP:OD1	1:f:505:LEU:N	2.50	0.44
1:g:271:VAL:HG21	1:g:286:VAL:HG11	1.99	0.44
1:D:322:VAL:HB	1:U:204:PHE:CD1	2.52	0.44
1:H:55:LEU:HD12	1:H:74:LYS:HB3	2.00	0.44
1:H:534:ILE:CG2	1:H:558:ARG:HB2	2.47	0.44
1:I:349:TYR:OH	1:I:352:LEU:HA	2.17	0.44
1:J:160:ASP:OD1	1:J:160:ASP:N	2.50	0.44
1:J:389:HIS:O	1:J:407:PRO:HD2	2.17	0.44
1:L:589:ASN:O	1:L:591:THR:HG23	2.16	0.44
1:M:444:VAL:HG22	1:M:513:MET:HE1	1.99	0.44
1:O:134:GLU:OE2	1:O:134:GLU:N	2.51	0.44
1:O:330:PRO:HD2	1:O:560:ARG:HB2	1.98	0.44
1:P:594:THR:HA	1:R:592:GLN:OE1	2.18	0.44
1:R:307:THR:HG23	1:R:307:THR:O	2.18	0.44
1:R:386:GLY:HA2	1:R:408:TYR:HE1	1.82	0.44
1:X:440:ILE:HD13	1:X:571:ILE:HD12	2.00	0.44
1:Y:434:GLY:HA3	1:c:426:ALA:HA	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:583:ARG:HD3	1:c:587:ASP:HB2	2.00	0.44
1:c:214:SER:HA	1:c:245:ASP:HA	1.99	0.44
1:f:433:GLN:HE21	1:f:482:ILE:C	2.25	0.44
1:i:507:MET:HE2	1:i:507:MET:HB2	1.82	0.44
1:j:375:ARG:HH11	1:j:379:LEU:HD11	1.82	0.44
1:A:121:GLY:C	1:A:122:LYS:HD2	2.41	0.44
1:B:290:LEU:HD23	1:B:293:LEU:HD13	2.00	0.44
1:B:429:GLN:OE1	1:C:438:SER:HA	2.17	0.44
1:C:55:LEU:HD22	1:C:74:LYS:HD3	1.98	0.44
1:E:199:THR:O	1:E:208:GLN:NE2	2.50	0.44
1:E:339:LYS:HG3	1:E:340:PRO:O	2.17	0.44
1:E:546:ASN:O	1:E:548:ARG:NE	2.51	0.44
1:J:331:THR:O	1:J:332:LEU:HD23	2.17	0.44
1:K:337:ILE:HD11	1:K:355:LEU:HD13	1.99	0.44
1:K:379:LEU:HD12	1:K:379:LEU:HA	1.74	0.44
1:L:467:LYS:HD3	1:L:467:LYS:C	2.42	0.44
1:M:476:MET:HE2	1:M:476:MET:HA	1.99	0.44
1:N:53:ARG:HE	1:N:55:LEU:HD21	1.81	0.44
1:O:511:ILE:HD12	1:O:571:ILE:HD11	1.99	0.44
1:O:522:GLU:OE1	1:O:522:GLU:N	2.49	0.44
1:P:39:ILE:HD11	1:P:535:PRO:HD3	1.98	0.44
1:R:139:PHE:HE2	1:R:141:LEU:HB2	1.83	0.44
1:T:516:ILE:HG12	1:T:517:LEU:H	1.82	0.44
1:Z:449:GLN:OE1	1:Z:450:LEU:HD22	2.18	0.44
1:a:76:ASN:OD1	1:a:77:ILE:N	2.50	0.44
1:a:208:GLN:NE2	1:i:210:LYS:HD3	2.33	0.44
1:b:33:LEU:HD21	1:b:471:ALA:HB1	1.99	0.44
1:e:478:LEU:HD23	1:e:478:LEU:HA	1.85	0.44
1:f:375:ARG:HG3	1:f:568:MET:HE1	1.99	0.44
1:g:527:GLN:O	1:g:564:PHE:HB2	2.18	0.44
1:j:328:MET:N	1:j:328:MET:SD	2.91	0.44
1:j:481:TYR:CE2	1:j:576:LEU:HD21	2.53	0.44
1:A:199:THR:HB	1:A:208:GLN:NE2	2.31	0.44
1:A:339:LYS:HD3	1:A:349:TYR:HB2	1.99	0.44
1:C:338:VAL:HG22	1:D:317:LEU:HD11	1.99	0.44
1:D:56:VAL:HG22	1:D:318:ILE:HG22	1.99	0.44
1:D:476:MET:SD	1:D:501:ARG:HD3	2.57	0.44
1:E:32:GLU:HA	1:E:35:TYR:O	2.18	0.44
1:E:540:ASP:OD2	1:E:551:ARG:NH2	2.51	0.44
1:G:157:THR:HG22	1:N:548:ARG:CZ	2.48	0.44
1:G:210:LYS:NZ	1:R:251:GLU:OE1	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:252:MET:HE2	1:G:252:MET:HA	1.99	0.44
1:I:37:THR:HA	1:I:531:LEU:HB3	2.00	0.44
1:M:96:PRO:HG2	1:M:130:LEU:HD11	1.99	0.44
1:M:394:ASN:ND2	1:M:407:PRO:HG3	2.33	0.44
1:M:423:LEU:O	1:N:421:ASN:HB3	2.17	0.44
1:N:89:THR:HG21	1:N:316:LEU:HD21	1.99	0.44
1:O:208:GLN:OE1	1:O:209:LEU:N	2.47	0.44
1:P:246:VAL:HG22	1:P:266:LEU:HD23	2.00	0.44
1:S:218:GLY:H	1:S:221:SER:HB3	1.83	0.44
1:T:210:LYS:HD2	1:T:210:LYS:HA	1.83	0.44
1:U:336:VAL:HG23	1:U:553:ILE:O	2.17	0.44
1:U:582:GLN:OE1	1:U:583:ARG:N	2.47	0.44
1:V:558:ARG:HG3	1:V:558:ARG:NH1	2.33	0.44
1:V:589:ASN:ND2	1:X:585:ALA:HB3	2.33	0.44
1:X:310:ASN:ND2	1:b:548:ARG:HA	2.32	0.44
1:Y:65:LEU:H	1:Y:67:GLY:H	1.66	0.44
1:a:55:LEU:HD13	1:a:74:LYS:HB3	1.99	0.44
1:c:163:ASP:OD2	1:c:305:ARG:HB3	2.18	0.44
1:e:244:LEU:HD23	1:e:268:LEU:HA	2.00	0.44
1:f:464:ARG:NH1	1:f:464:ARG:HA	2.32	0.44
1:h:365:ARG:HG3	1:h:502:ILE:HD11	2.00	0.44
1:i:404:TYR:HD1	1:i:526:LEU:HD21	1.81	0.44
1:j:392:GLU:OE1	1:j:403:TYR:HD1	2.00	0.44
1:A:576:LEU:O	1:A:580:ILE:HG13	2.17	0.44
1:B:545:ARG:HH12	1:C:153:LYS:HE2	1.82	0.44
1:C:503:SER:HB3	1:D:82:LEU:HD23	2.00	0.44
1:E:46:GLY:HA2	1:E:329:ILE:HG12	1.99	0.44
1:E:363:GLN:HB3	1:E:559:TYR:CE1	2.53	0.44
1:H:328:MET:HE2	1:I:164:SER:HB3	1.98	0.44
1:H:390:PRO:HB2	1:H:393:SER:HB3	2.00	0.44
1:H:474:THR:HG22	1:H:511:ILE:HG12	1.98	0.44
1:J:592:GLN:HE21	1:K:594:THR:HA	1.82	0.44
1:L:308:ASN:OD1	1:L:309:ILE:N	2.51	0.44
1:L:578:GLU:O	1:L:582:GLN:N	2.38	0.44
1:M:594:THR:HG22	1:Q:592:GLN:HG2	1.98	0.44
1:O:98:ILE:HA	1:O:107:PHE:HE2	1.82	0.44
1:O:347:LYS:HE2	1:R:52:ARG:CB	2.47	0.44
1:O:394:ASN:ND2	1:O:397:LEU:HD13	2.33	0.44
1:P:168:LEU:HD13	1:P:171:LEU:HD11	2.00	0.44
1:P:379:LEU:HD23	1:P:409:TYR:HD1	1.82	0.44
1:P:402:GLN:HG2	1:P:407:PRO:HG3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:156:MET:HE1	1:S:60:TRP:CG	2.53	0.44
1:U:219:GLU:HA	1:U:236:PHE:HD1	1.83	0.44
1:U:239:GLY:HA3	1:U:274:LYS:HD3	1.98	0.44
1:W:169:LYS:HZ1	1:W:189:ASN:HD22	1.66	0.44
1:W:346:ASP:HA	1:W:351:ARG:HH22	1.83	0.44
1:X:260:ASP:N	1:X:260:ASP:OD1	2.50	0.44
1:Y:396:GLY:HA2	1:Z:192:GLN:HE22	1.82	0.44
1:a:198:ALA:H	1:i:200:ARG:HH22	1.64	0.44
1:b:433:GLN:NE2	1:b:437:VAL:HG21	2.32	0.44
1:c:507:MET:O	1:c:507:MET:HG2	2.18	0.44
1:f:177:LYS:NZ	1:f:291:SER:O	2.40	0.44
1:f:365:ARG:HD2	1:f:502:ILE:HD11	2.00	0.44
1:g:328:MET:HE3	1:g:329:ILE:H	1.82	0.44
1:g:341:ALA:HB2	1:g:551:ARG:HG2	2.00	0.44
1:g:430:THR:O	1:g:433:GLN:HG3	2.17	0.44
1:h:240:TYR:HD1	1:h:273:ASP:HA	1.83	0.44
1:j:388:PRO:HG3	1:j:450:LEU:HD21	1.99	0.44
1:A:139:PHE:N	1:R:69:LYS:HZ1	2.16	0.44
1:A:311:GLN:NE2	1:O:549:ILE:HG13	2.32	0.44
1:B:40:VAL:O	1:B:534:ILE:HG22	2.18	0.44
1:B:219:GLU:HA	1:B:236:PHE:CD1	2.52	0.44
1:E:469:HIS:CD2	1:E:518:PRO:HG3	2.52	0.44
1:H:337:ILE:HD13	1:H:349:TYR:CD1	2.51	0.44
1:I:449:GLN:OE1	1:I:449:GLN:HA	2.16	0.44
1:J:390:PRO:O	1:J:393:SER:OG	2.28	0.44
1:K:484:ILE:HG22	1:K:487:ASP:H	1.83	0.44
1:M:336:VAL:O	1:M:337:ILE:HD13	2.18	0.44
1:N:336:VAL:HG12	1:N:554:ARG:CD	2.48	0.44
1:P:472:ILE:O	1:P:499:ILE:HA	2.18	0.44
1:R:369:VAL:HG21	1:R:506:ARG:NH2	2.33	0.44
1:S:587:ASP:HB3	1:T:591:THR:HG21	1.99	0.44
1:U:469:HIS:ND1	1:U:518:PRO:HG3	2.33	0.44
1:W:420:LEU:HD21	1:W:432:ILE:HG12	1.99	0.44
1:X:433:GLN:HE21	1:X:437:VAL:HG21	1.82	0.44
1:Y:484:ILE:HB	1:Y:490:THR:HG22	2.00	0.44
1:Y:548:ARG:HG3	1:i:157:THR:HB	2.00	0.44
1:a:303:GLU:OE2	1:a:305:ARG:NH2	2.51	0.44
1:b:300:TYR:CE2	1:b:302:LEU:HD11	2.52	0.44
1:d:230:ALA:HA	1:d:233:LYS:NZ	2.32	0.44
1:f:328:MET:SD	1:f:328:MET:N	2.91	0.44
1:g:391:ILE:HG22	1:g:392:GLU:CD	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:97:VAL:HG23	1:h:125:PHE:CD2	2.52	0.44
1:i:57:TRP:HE1	1:i:319:ASP:CG	2.26	0.44
1:A:55:LEU:HD13	1:A:74:LYS:HB3	2.00	0.44
1:A:169:LYS:HG2	1:A:170:GLN:HG3	2.00	0.44
1:C:375:ARG:HE	1:C:563:ASN:HB2	1.82	0.44
1:D:140:ASN:HB2	1:Y:69:LYS:HB3	1.99	0.44
1:E:522:GLU:HB3	1:E:523:PRO:HD2	1.99	0.44
1:G:84:TYR:HA	1:K:366:ASN:ND2	2.32	0.44
1:G:165:ARG:HH22	1:K:560:ARG:HD3	1.82	0.44
1:G:329:ILE:HG21	1:G:534:ILE:HG13	2.00	0.44
1:G:479:PRO:HG2	1:G:501:ARG:HG2	2.00	0.44
1:I:285:ARG:HG3	1:I:286:VAL:N	2.33	0.44
1:J:87:LEU:CD2	1:J:88:GLU:H	2.25	0.44
1:J:593:VAL:O	1:J:594:THR:HG23	2.18	0.44
1:K:212:HIS:NE2	1:K:247:LYS:HB2	2.33	0.44
1:K:337:ILE:HG12	1:K:349:TYR:CE1	2.53	0.44
1:K:445:TYR:CE1	1:K:495:TYR:HE2	2.35	0.44
1:P:192:GLN:HG3	1:R:397:LEU:O	2.17	0.44
1:Q:474:THR:HG23	1:Q:479:PRO:HG3	2.00	0.44
1:R:147:THR:HG22	1:R:150:ARG:HD3	2.00	0.44
1:S:134:GLU:OE1	1:S:134:GLU:N	2.48	0.44
1:T:235:LEU:HD11	1:T:290:LEU:HD21	2.00	0.44
1:W:346:ASP:HA	1:W:351:ARG:NH2	2.33	0.44
1:X:410:ASN:OD1	1:X:411:GLU:N	2.51	0.44
1:Y:336:VAL:O	1:Y:337:ILE:HD13	2.18	0.44
1:Z:138:GLY:HA3	1:Z:260:ASP:HB3	2.00	0.44
1:Z:422:ASN:ND2	1:Z:428:LYS:HA	2.32	0.44
1:b:108:ILE:HD13	1:b:129:PHE:HB2	2.00	0.44
1:c:484:ILE:HB	1:c:486:GLY:H	1.83	0.44
1:e:48:GLN:HG3	1:e:326:GLY:HA2	2.00	0.44
1:g:93:GLU:OE2	1:g:120:GLN:NE2	2.43	0.44
1:i:375:ARG:HG3	1:i:568:MET:CE	2.48	0.44
1:A:191:ASP:OD2	1:A:193:TYR:HB2	2.17	0.43
1:A:330:PRO:HB3	1:B:165:ARG:HD2	2.00	0.43
1:A:514:THR:OG1	1:A:515:PHE:N	2.51	0.43
1:A:531:LEU:HD11	1:A:559:TYR:HB2	2.00	0.43
1:B:389:HIS:HB2	1:B:407:PRO:HG2	2.01	0.43
1:B:545:ARG:HH22	1:C:153:LYS:NZ	2.16	0.43
1:C:81:LEU:HD12	1:C:455:ALA:HB1	1.99	0.43
1:C:267:ARG:HD2	1:C:268:LEU:N	2.32	0.43
1:C:457:LEU:HD23	1:C:526:LEU:HD13	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:447:ALA:O	1:G:451:THR:HG22	2.17	0.43
1:H:392:GLU:HA	1:H:402:GLN:NE2	2.32	0.43
1:I:196:TYR:HE2	1:I:209:LEU:HD13	1.83	0.43
1:I:380:LYS:HE3	1:I:409:TYR:HE2	1.82	0.43
1:I:467:LYS:HD2	1:I:494:GLY:O	2.18	0.43
1:K:334:PRO:HB3	1:K:556:THR:HG22	2.00	0.43
1:L:53:ARG:HE	1:L:55:LEU:HD11	1.83	0.43
1:L:375:ARG:HH21	1:L:566:PRO:HA	1.83	0.43
1:L:489:ARG:HH12	1:L:493:ILE:HD13	1.83	0.43
1:Q:93:GLU:H	1:Q:93:GLU:CD	2.22	0.43
1:Q:186:LEU:HD23	1:Q:215:LEU:HD13	2.00	0.43
1:R:210:LYS:O	1:R:210:LYS:HG3	2.17	0.43
1:W:186:LEU:HD11	1:W:217:LEU:HD21	2.00	0.43
1:X:92:THR:HG22	1:X:313:GLU:HG2	1.99	0.43
1:a:132:PHE:CE2	1:a:263:LEU:HB2	2.53	0.43
1:a:196:TYR:HB3	1:a:207:MET:HG3	1.99	0.43
1:f:165:ARG:C	1:f:166:ILE:HD12	2.43	0.43
1:g:365:ARG:HD2	1:g:502:ILE:HD11	1.99	0.43
1:h:336:VAL:HG23	1:h:554:ARG:HG2	2.00	0.43
1:A:353:GLU:HG2	1:A:354:ALA:N	2.32	0.43
1:B:331:THR:HA	1:B:558:ARG:CB	2.47	0.43
1:D:341:ALA:HA	1:D:551:ARG:HG2	2.00	0.43
1:D:352:LEU:HD23	1:D:352:LEU:HA	1.83	0.43
1:G:312:LEU:HD11	1:N:548:ARG:NH1	2.24	0.43
1:L:464:ARG:C	1:L:466:PRO:HD3	2.43	0.43
1:M:320:SER:O	1:Q:348:THR:HG23	2.18	0.43
1:M:588:VAL:HG12	1:M:590:GLU:HG3	1.99	0.43
1:S:320:SER:HB2	1:W:350:PRO:HD3	1.99	0.43
1:S:583:ARG:HE	1:S:584:THR:N	2.17	0.43
1:T:461:PHE:HE2	1:T:526:LEU:HD12	1.83	0.43
1:T:469:HIS:CE1	1:T:496:ASP:HB2	2.53	0.43
1:T:582:GLN:NE2	1:T:583:ARG:O	2.51	0.43
1:U:534:ILE:CG2	1:U:558:ARG:HB2	2.47	0.43
1:V:323:GLN:HG3	1:V:403:TYR:CE2	2.53	0.43
1:V:392:GLU:O	1:V:392:GLU:HG2	2.18	0.43
1:V:410:ASN:OD1	1:V:411:GLU:N	2.51	0.43
1:X:28:HIS:HE1	1:X:30:PHE:CB	2.30	0.43
1:X:333:PRO:HA	1:X:334:PRO:HD3	1.87	0.43
1:a:57:TRP:HA	1:a:75:ARG:NH1	2.32	0.43
1:d:106:GLN:HE21	1:d:144:LEU:HD21	1.83	0.43
1:d:173:ILE:CG2	1:d:184:PHE:HB2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:190:ARG:NH1	1:i:560:ARG:HE	2.15	0.43
1:f:28:HIS:HB3	1:f:364:MET:HE2	2.00	0.43
1:f:218:GLY:HA2	1:f:241:ARG:NE	2.21	0.43
1:f:420:LEU:HD11	1:f:432:ILE:HG12	2.00	0.43
1:f:438:SER:HB2	1:f:489:ARG:NH1	2.33	0.43
1:B:474:THR:HB	1:B:511:ILE:HG12	2.01	0.43
1:G:122:LYS:HA	1:G:122:LYS:HE2	1.99	0.43
1:G:276:GLY:O	1:G:277:LYS:HE2	2.19	0.43
1:G:590:GLU:CG	1:G:592:GLN:H	2.25	0.43
1:J:568:MET:HE2	1:J:568:MET:HB3	1.73	0.43
1:K:422:ASN:HD21	1:K:428:LYS:HG3	1.83	0.43
1:N:219:GLU:HB3	1:N:240:TYR:O	2.18	0.43
1:R:351:ARG:HG3	1:R:352:LEU:H	1.83	0.43
1:R:379:LEU:HD13	1:R:383:LEU:HD23	2.01	0.43
1:S:89:THR:O	1:W:333:PRO:HG2	2.19	0.43
1:T:332:LEU:HB2	1:T:557:PRO:HG2	2.00	0.43
1:U:483:GLN:NE2	1:U:484:ILE:O	2.47	0.43
1:V:330:PRO:HB3	1:W:165:ARG:CD	2.48	0.43
1:V:398:GLU:OE1	1:W:190:ARG:HA	2.18	0.43
1:b:592:GLN:NE2	1:c:594:THR:HG22	2.33	0.43
1:d:51:ILE:HD13	1:d:403:TYR:CD2	2.51	0.43
1:d:316:LEU:C	1:d:317:LEU:HD12	2.43	0.43
1:d:467:LYS:HG3	1:d:467:LYS:O	2.18	0.43
1:e:76:ASN:OD1	1:e:78:LEU:HG	2.19	0.43
1:e:153:LYS:HD3	1:e:153:LYS:C	2.43	0.43
1:f:267:ARG:HD2	1:f:267:ARG:C	2.43	0.43
1:g:139:PHE:HE1	1:g:141:LEU:HD13	1.84	0.43
1:h:423:LEU:HD23	1:h:586:LEU:HD11	2.01	0.43
1:B:368:ALA:HB2	1:B:561:TYR:CZ	2.53	0.43
1:D:507:MET:HE3	1:D:507:MET:HB3	1.96	0.43
1:E:244:LEU:HD11	1:E:295:VAL:HG11	2.00	0.43
1:H:252:MET:SD	1:H:259:GLY:HA3	2.58	0.43
1:I:508:LYS:NZ	1:L:449:GLN:OE1	2.51	0.43
1:I:543:MET:SD	1:I:545:ARG:HB2	2.58	0.43
1:M:273:ASP:OD1	1:M:277:LYS:N	2.38	0.43
1:N:99:GLN:OE1	1:N:103:ASN:ND2	2.50	0.43
1:N:414:ILE:HD12	1:N:414:ILE:HA	1.90	0.43
1:O:480:GLN:HG3	1:R:445:TYR:HE1	1.82	0.43
1:R:196:TYR:CE1	1:R:209:LEU:HB2	2.54	0.43
1:U:436:ILE:O	1:U:440:ILE:HG12	2.18	0.43
1:U:476:MET:SD	1:U:501:ARG:HB3	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:211:PHE:HB3	1:V:248:VAL:O	2.18	0.43
1:V:591:THR:O	1:V:593:VAL:HG13	2.18	0.43
1:W:131:LYS:HG3	1:W:132:PHE:O	2.18	0.43
1:W:524:HIS:CG	1:W:525:PRO:HD2	2.53	0.43
1:W:544:ILE:HG23	1:W:544:ILE:O	2.18	0.43
1:Y:243:GLU:OE1	1:Y:270:ARG:HG2	2.18	0.43
1:Y:594:THR:HA	1:c:592:GLN:OE1	2.18	0.43
1:Z:161:SER:OG	1:Z:307:THR:O	2.36	0.43
1:b:55:LEU:HD23	1:b:74:LYS:HD2	2.00	0.43
1:b:375:ARG:HD2	1:b:375:ARG:HA	1.73	0.43
1:b:531:LEU:HD13	1:b:561:TYR:CD1	2.53	0.43
1:b:587:ASP:OD2	1:d:583:ARG:NE	2.51	0.43
1:c:327:PHE:O	1:c:328:MET:HE2	2.18	0.43
1:h:449:GLN:CD	1:j:477:ARG:HB2	2.43	0.43
1:i:338:VAL:HG22	1:i:552:GLU:HG2	2.00	0.43
1:j:37:THR:HA	1:j:531:LEU:HB2	1.99	0.43
1:A:175:VAL:HG22	1:A:295:VAL:HG22	2.01	0.43
1:A:404:TYR:CD1	1:A:526:LEU:HD11	2.53	0.43
1:D:69:LYS:HA	1:D:69:LYS:HD3	1.79	0.43
1:D:381:SER:HA	1:E:220:GLU:OE2	2.17	0.43
1:D:393:SER:O	1:D:395:LEU:HD22	2.19	0.43
1:E:351:ARG:HD2	1:E:351:ARG:HA	1.78	0.43
1:G:325:GLN:HG3	1:H:192:GLN:NE2	2.30	0.43
1:G:464:ARG:HG2	1:G:466:PRO:HD3	2.00	0.43
1:I:365:ARG:HH22	1:L:81:LEU:HG	1.84	0.43
1:I:531:LEU:HD13	1:I:561:TYR:CD1	2.54	0.43
1:J:423:LEU:O	1:K:421:ASN:HB3	2.17	0.43
1:K:41:THR:O	1:K:43:ASP:N	2.47	0.43
1:L:53:ARG:NE	1:L:55:LEU:HD11	2.33	0.43
1:Q:139:PHE:HE2	1:Q:141:LEU:HD23	1.84	0.43
1:Q:339:LYS:HD3	1:Q:551:ARG:HD2	1.99	0.43
1:R:75:ARG:HG3	1:R:86:THR:HG22	2.00	0.43
1:S:239:GLY:O	1:S:274:LYS:HE3	2.18	0.43
1:T:549:ILE:HB	1:Y:310:ASN:HB3	2.00	0.43
1:U:147:THR:HG23	1:U:150:ARG:H	1.83	0.43
1:U:422:ASN:OD1	1:U:423:LEU:N	2.52	0.43
1:V:203:ASN:CG	1:V:204:PHE:H	2.27	0.43
1:V:457:LEU:HD13	1:V:526:LEU:HD13	2.00	0.43
1:W:514:THR:OG1	1:W:515:PHE:N	2.52	0.43
1:Z:196:TYR:CD2	1:Z:209:LEU:HB2	2.54	0.43
1:Z:212:HIS:CE1	1:Z:264:ARG:HH21	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:g:308:ASN:ND2	1:g:313:GLU:OE1	2.52	0.43
1:g:399:GLY:O	1:g:402:GLN:NE2	2.51	0.43
1:j:55:LEU:HD12	1:j:74:LYS:HB3	2.01	0.43
1:B:119:LYS:HA	1:B:119:LYS:HD2	1.72	0.43
1:B:339:LYS:HE2	1:B:339:LYS:HA	2.01	0.43
1:C:528:HIS:HA	1:C:565:LEU:HD23	2.01	0.43
1:D:398:GLU:OE1	1:E:190:ARG:HA	2.18	0.43
1:E:339:LYS:NZ	1:E:340:PRO:O	2.51	0.43
1:E:398:GLU:HG2	1:E:563:ASN:HB2	2.00	0.43
1:H:331:THR:HA	1:H:558:ARG:HG2	1.99	0.43
1:H:578:GLU:OE2	1:H:578:GLU:N	2.41	0.43
1:J:310:ASN:C	1:J:311:GLN:OE1	2.61	0.43
1:J:360:ARG:NH2	1:J:364:MET:HE3	2.34	0.43
1:K:207:MET:HB3	1:K:252:MET:HE3	2.01	0.43
1:K:397:LEU:HD23	1:K:398:GLU:N	2.33	0.43
1:L:591:THR:O	1:L:593:VAL:HG13	2.19	0.43
1:M:433:GLN:CD	1:M:489:ARG:HE	2.18	0.43
1:R:199:THR:HB	1:R:208:GLN:OE1	2.19	0.43
1:S:545:ARG:HG3	1:T:153:LYS:HZ1	1.83	0.43
1:T:306:LEU:O	1:T:308:ASN:N	2.52	0.43
1:U:184:PHE:HE1	1:U:223:THR:HG22	1.83	0.43
1:U:333:PRO:HG2	1:X:90:ASN:HA	2.00	0.43
1:V:219:GLU:HA	1:V:236:PHE:CD1	2.53	0.43
1:W:531:LEU:HD13	1:W:561:TYR:CD1	2.53	0.43
1:X:351:ARG:HA	1:X:351:ARG:HD3	1.77	0.43
1:Y:383:LEU:HD12	1:Y:389:HIS:CE1	2.53	0.43
1:Z:207:MET:N	1:Z:252:MET:O	2.47	0.43
1:b:57:TRP:HE1	1:b:319:ASP:CG	2.26	0.43
1:b:313:GLU:O	1:d:554:ARG:NH2	2.47	0.43
1:b:593:VAL:HG21	1:d:591:THR:HG22	2.00	0.43
1:c:40:VAL:HB	1:c:534:ILE:HG12	2.00	0.43
1:c:584:THR:O	1:c:584:THR:HG23	2.19	0.43
1:e:61:THR:HG23	1:e:70:GLN:OE1	2.18	0.43
1:e:464:ARG:O	1:e:466:PRO:HD3	2.19	0.43
1:f:180:THR:HB	1:f:231:LEU:HD21	2.01	0.43
1:i:269:ALA:HB1	1:i:270:ARG:HD3	2.01	0.43
1:j:527:GLN:O	1:j:564:PHE:HB2	2.18	0.43
1:A:269:ALA:HB1	1:A:270:ARG:NH2	2.33	0.43
1:A:536:GLU:CD	1:A:558:ARG:HG2	2.43	0.43
1:A:548:ARG:NH2	1:e:312:LEU:HD21	2.33	0.43
1:D:77:ILE:HG23	1:D:78:LEU:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:422:ASN:O	1:D:428:LYS:NZ	2.42	0.43
1:E:478:LEU:O	1:E:480:GLN:N	2.52	0.43
1:K:323:GLN:OE1	1:R:203:ASN:HA	2.19	0.43
1:K:339:LYS:HG3	1:K:343:VAL:O	2.18	0.43
1:L:134:GLU:OE1	1:L:134:GLU:N	2.51	0.43
1:P:171:LEU:HD13	1:P:188:VAL:HG11	2.00	0.43
1:Q:158:PHE:CD2	1:W:338:VAL:HG11	2.54	0.43
1:Q:578:GLU:HA	1:Q:578:GLU:OE2	2.18	0.43
1:S:421:ASN:HD22	1:W:425:SER:N	2.17	0.43
1:U:171:LEU:HD13	1:U:188:VAL:HG11	2.01	0.43
1:U:568:MET:HE3	1:U:568:MET:HB2	1.94	0.43
1:V:196:TYR:CD2	1:V:209:LEU:HB2	2.54	0.43
1:W:351:ARG:HG2	1:W:351:ARG:HH11	1.84	0.43
1:X:168:LEU:HD11	1:X:209:LEU:HD21	2.00	0.43
1:Y:306:LEU:CD2	1:Y:308:ASN:HB2	2.48	0.43
1:Y:359:TYR:CE1	1:Y:557:PRO:HB3	2.53	0.43
1:Z:380:LYS:HE2	1:Z:409:TYR:CE2	2.53	0.43
1:Z:395:LEU:C	1:a:192:GLN:HE22	2.27	0.43
1:a:249:ASP:O	1:a:261:THR:OG1	2.28	0.43
1:c:482:ILE:HG22	1:c:482:ILE:O	2.18	0.43
1:i:48:GLN:NE2	1:i:324:LYS:HB2	2.34	0.43
1:j:113:LEU:HD23	1:j:114:PRO:O	2.19	0.43
1:j:116:GLN:OE1	1:j:116:GLN:N	2.51	0.43
1:j:163:ASP:HB2	1:j:305:ARG:O	2.19	0.43
1:j:589:ASN:O	1:j:591:THR:HG23	2.18	0.43
1:A:551:ARG:HE	1:A:552:GLU:N	2.17	0.43
1:B:93:GLU:HG2	1:B:95:ILE:HD11	2.01	0.43
1:B:268:LEU:HD21	1:B:290:LEU:HD22	2.00	0.43
1:C:166:ILE:O	1:C:196:TYR:HB2	2.18	0.43
1:C:545:ARG:HD3	1:C:545:ARG:HA	1.85	0.43
1:D:433:GLN:HG2	1:D:481:TYR:HA	2.00	0.43
1:E:398:GLU:HG3	1:E:563:ASN:O	2.19	0.43
1:G:143:MET:HG2	1:O:67:GLY:HA2	1.99	0.43
1:G:220:GLU:OE2	1:K:381:SER:HA	2.19	0.43
1:I:86:THR:C	1:I:87:LEU:HD12	2.44	0.43
1:I:201:GLU:CD	1:I:202:TYR:HB2	2.44	0.43
1:I:445:TYR:HE2	1:I:495:TYR:HE1	1.65	0.43
1:J:341:ALA:HB2	1:J:551:ARG:H	1.84	0.43
1:K:411:GLU:OE1	1:K:570:VAL:HB	2.19	0.43
1:L:57:TRP:CZ2	1:L:60:TRP:CD1	3.07	0.43
1:L:94:LEU:N	1:L:304:ALA:O	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:429:GLN:HE22	1:R:438:SER:CB	2.31	0.43
1:Q:336:VAL:HG11	1:Q:554:ARG:HD3	2.01	0.43
1:Q:428:LYS:HE2	1:Q:580:ILE:HA	2.00	0.43
1:S:58:GLU:OE1	1:S:58:GLU:N	2.52	0.43
1:S:318:ILE:H	1:W:337:ILE:CD1	2.29	0.43
1:S:593:VAL:HG13	1:W:590:GLU:O	2.19	0.43
1:T:359:TYR:CE1	1:T:557:PRO:HB3	2.53	0.43
1:T:522:GLU:O	1:T:527:GLN:NE2	2.50	0.43
1:W:337:ILE:CG2	1:W:553:ILE:HB	2.49	0.43
1:Y:51:ILE:HD11	1:Y:403:TYR:HD2	1.84	0.43
1:Y:53:ARG:NH1	1:Y:55:LEU:HD11	2.34	0.43
1:Y:586:LEU:O	1:Y:588:VAL:N	2.48	0.43
1:a:128:ASN:OD1	1:a:129:PHE:N	2.50	0.43
1:a:260:ASP:N	1:a:260:ASP:OD1	2.50	0.43
1:b:81:LEU:HD21	1:b:455:ALA:HB1	2.00	0.43
1:e:150:ARG:O	1:e:153:LYS:HB3	2.19	0.43
1:g:489:ARG:HG2	1:g:493:ILE:HG13	2.01	0.43
1:i:437:VAL:HA	1:i:440:ILE:HG22	2.01	0.43
1:j:428:LYS:HE3	1:j:580:ILE:HA	2.01	0.43
1:A:196:TYR:CE1	1:A:209:LEU:HB2	2.54	0.43
1:C:258:ASN:HD22	1:C:258:ASN:C	2.27	0.43
1:D:212:HIS:HB2	1:D:247:LYS:NZ	2.34	0.43
1:D:212:HIS:C	1:D:247:LYS:HZ1	2.27	0.43
1:G:382:TYR:HE2	1:G:397:LEU:HB2	1.84	0.43
1:G:583:ARG:NH2	1:H:421:ASN:HA	2.34	0.43
1:H:411:GLU:N	1:H:411:GLU:OE2	2.51	0.43
1:I:240:TYR:CE2	1:I:285:ARG:HD3	2.54	0.43
1:I:383:LEU:HD22	1:I:389:HIS:CE1	2.53	0.43
1:J:310:ASN:HD22	1:J:312:LEU:HD21	1.82	0.43
1:J:346:ASP:HB3	1:J:351:ARG:HH12	1.83	0.43
1:K:248:VAL:HG22	1:K:263:LEU:HD23	2.00	0.43
1:L:321:ASP:HA	1:f:204:PHE:CE2	2.53	0.43
1:N:382:TYR:HA	1:O:241:ARG:HH12	1.84	0.43
1:N:541:PHE:HE2	1:N:543:MET:HB2	1.84	0.43
1:O:390:PRO:HG2	1:O:393:SER:HB3	1.99	0.43
1:O:578:GLU:H	1:O:578:GLU:CD	2.27	0.43
1:Q:83:ASP:CG	1:Q:84:TYR:H	2.27	0.43
1:Q:219:GLU:HA	1:Q:236:PHE:CG	2.54	0.43
1:R:108:ILE:HD11	1:R:299:GLY:HA3	2.00	0.43
1:T:196:TYR:CE1	1:T:209:LEU:HB2	2.52	0.43
1:T:264:ARG:HH11	1:T:264:ARG:HG2	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:477:ARG:C	1:T:479:PRO:HD2	2.44	0.43
1:U:49:LEU:O	1:U:324:LYS:HA	2.19	0.43
1:U:484:ILE:HD12	1:U:487:ASP:HB2	2.01	0.43
1:Z:330:PRO:HG2	1:Z:560:ARG:HB2	2.00	0.43
1:a:513:MET:HB2	1:a:569:LEU:HB2	2.00	0.43
1:b:190:ARG:HB3	1:d:398:GLU:CD	2.44	0.43
1:b:347:LYS:O	1:b:350:PRO:HD3	2.19	0.43
1:b:441:ASN:HD21	1:d:429:GLN:NE2	2.17	0.43
1:c:135:ASN:OD1	1:c:136:GLY:N	2.52	0.43
1:c:245:ASP:OD2	1:c:245:ASP:N	2.49	0.43
1:h:211:PHE:HB3	1:h:248:VAL:HB	2.01	0.43
1:E:240:TYR:HH	1:E:285:ARG:NH2	2.17	0.43
1:G:35:TYR:HA	1:G:529:GLY:O	2.19	0.43
1:G:332:LEU:HG	1:G:333:PRO:HD2	2.01	0.43
1:G:428:LYS:NZ	1:G:580:ILE:HD12	2.34	0.43
1:H:276:GLY:O	1:H:277:LYS:HD3	2.19	0.43
1:H:469:HIS:ND1	1:H:496:ASP:O	2.51	0.43
1:I:430:THR:OG1	1:I:487:ASP:OD1	2.22	0.43
1:J:32:GLU:OE2	1:J:36:ARG:NH1	2.52	0.43
1:J:198:ALA:HB3	1:f:200:ARG:HH12	1.84	0.43
1:J:422:ASN:ND2	1:J:428:LYS:HG2	2.34	0.43
1:J:429:GLN:O	1:J:432:ILE:HG13	2.19	0.43
1:K:343:VAL:HG13	1:K:348:THR:OG1	2.19	0.43
1:M:434:GLY:HA2	1:M:437:VAL:HG12	2.01	0.43
1:N:169:LYS:HD2	1:N:303:GLU:HB2	2.01	0.43
1:O:383:LEU:CD1	1:O:407:PRO:HB2	2.49	0.43
1:P:162:LEU:HB2	1:P:254:VAL:HB	2.01	0.43
1:P:235:LEU:HD13	1:P:242:ILE:HD11	2.00	0.43
1:Q:336:VAL:HG12	1:Q:555:LEU:H	1.84	0.43
1:R:103:ASN:ND2	1:R:144:LEU:HD12	2.34	0.43
1:R:160:ASP:HB3	1:R:306:LEU:HD11	2.00	0.43
1:R:433:GLN:HG2	1:R:481:TYR:O	2.19	0.43
1:R:470:VAL:O	1:R:497:TYR:HA	2.19	0.43
1:T:51:ILE:C	1:T:322:VAL:HG23	2.44	0.43
1:U:433:GLN:CD	1:U:484:ILE:HG12	2.43	0.43
1:W:364:MET:HE2	1:W:364:MET:HB2	1.78	0.43
1:X:28:HIS:CE1	1:X:30:PHE:CB	3.01	0.43
1:a:142:LEU:HG	1:a:156:MET:HE3	2.01	0.43
1:b:28:HIS:O	1:b:364:MET:HE2	2.19	0.43
1:c:60:TRP:CH2	1:c:63:GLU:HA	2.53	0.43
1:c:253:ASN:OD1	1:c:254:VAL:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:57:TRP:CZ3	1:h:60:TRP:HA	2.53	0.43
1:i:516:ILE:HG13	1:i:518:PRO:HD3	2.01	0.43
1:j:99:GLN:OE1	1:j:99:GLN:N	2.52	0.43
1:H:79:GLN:NE2	1:H:83:ASP:OD2	2.52	0.42
1:I:351:ARG:HD2	1:I:351:ARG:N	2.31	0.42
1:I:400:VAL:O	1:I:403:TYR:HB2	2.19	0.42
1:I:476:MET:HB2	1:L:449:GLN:HG3	2.01	0.42
1:I:511:ILE:HB	1:I:571:ILE:HB	2.00	0.42
1:J:420:LEU:N	1:L:583:ARG:HH12	2.17	0.42
1:J:479:PRO:HA	1:J:482:ILE:HG22	2.01	0.42
1:K:247:LYS:HE2	1:K:264:ARG:NE	2.34	0.42
1:L:28:HIS:N	1:L:364:MET:HG2	2.33	0.42
1:S:58:GLU:OE2	1:S:75:ARG:NH1	2.52	0.42
1:T:104:ASP:OD1	1:T:105:GLU:N	2.52	0.42
1:T:337:ILE:HB	1:T:553:ILE:HB	2.00	0.42
1:U:206:LEU:HB3	1:U:251:GLU:OE2	2.18	0.42
1:X:305:ARG:NH1	1:X:305:ARG:HG2	2.34	0.42
1:Y:437:VAL:HA	1:Y:440:ILE:HG22	2.01	0.42
1:Z:268:LEU:H	1:Z:268:LEU:HD23	1.84	0.42
1:b:202:TYR:O	1:b:203:ASN:HB2	2.19	0.42
1:b:449:GLN:NE2	1:d:475:ASP:OD2	2.51	0.42
1:e:552:GLU:OE1	1:e:554:ARG:NH2	2.50	0.42
1:f:331:THR:C	1:f:332:LEU:HD12	2.43	0.42
1:f:445:TYR:CE2	1:f:495:TYR:HE2	2.33	0.42
1:g:60:TRP:HD1	1:g:62:GLY:N	2.17	0.42
1:i:123:ASP:CG	1:i:149:SER:HG	2.27	0.42
1:i:260:ASP:N	1:i:260:ASP:OD1	2.52	0.42
1:i:337:ILE:HD13	1:i:349:TYR:CE1	2.54	0.42
1:A:428:LYS:O	1:A:432:ILE:HG12	2.19	0.42
1:D:359:TYR:CE1	1:D:557:PRO:HB3	2.47	0.42
1:D:365:ARG:HH12	1:E:81:LEU:HA	1.82	0.42
1:E:543:MET:HE2	1:E:543:MET:HB3	1.90	0.42
1:E:543:MET:HE2	1:E:552:GLU:OE1	2.18	0.42
1:E:578:GLU:O	1:E:582:GLN:HG2	2.18	0.42
1:G:158:PHE:CD1	1:O:60:TRP:HD1	2.36	0.42
1:G:587:ASP:OD2	1:H:591:THR:HG23	2.20	0.42
1:H:578:GLU:HA	1:H:581:ALA:HB3	2.00	0.42
1:J:81:LEU:HA	1:L:361:ILE:HD11	2.01	0.42
1:J:375:ARG:HB3	1:J:375:ARG:CZ	2.49	0.42
1:J:489:ARG:HH22	1:L:429:GLN:HG3	1.83	0.42
1:L:429:GLN:HG2	1:L:430:THR:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:513:MET:HE2	1:L:513:MET:HB3	1.73	0.42
1:N:423:LEU:HD12	1:O:423:LEU:HD21	2.00	0.42
1:N:429:GLN:HE22	1:N:481:TYR:HE1	1.67	0.42
1:P:163:ASP:OD2	1:P:305:ARG:HB2	2.19	0.42
1:P:457:LEU:HD22	1:P:526:LEU:HD21	2.01	0.42
1:Q:168:LEU:HD11	1:Q:209:LEU:HD21	2.01	0.42
1:S:594:THR:HG23	1:W:590:GLU:O	2.19	0.42
1:V:190:ARG:CD	1:X:560:ARG:HH22	2.32	0.42
1:W:331:THR:HA	1:W:558:ARG:HG2	2.00	0.42
1:Z:218:GLY:HA2	1:Z:241:ARG:HD3	2.01	0.42
1:Z:375:ARG:HH21	1:Z:566:PRO:HA	1.84	0.42
1:Z:425:SER:OG	1:a:421:ASN:ND2	2.34	0.42
1:Z:433:GLN:HE21	1:Z:484:ILE:HA	1.85	0.42
1:a:388:PRO:HB2	1:a:406:ARG:NH1	2.34	0.42
1:b:169:LYS:HE3	1:b:303:GLU:HB2	2.01	0.42
1:d:222:THR:HG22	1:d:228:GLU:HG2	2.00	0.42
1:e:389:HIS:O	1:e:406:ARG:HB3	2.19	0.42
1:e:568:MET:C	1:e:569:LEU:HD22	2.45	0.42
1:f:590:GLU:HG3	1:g:593:VAL:HB	2.02	0.42
1:h:531:LEU:HD13	1:h:561:TYR:CD1	2.53	0.42
1:B:55:LEU:HD23	1:B:76:ASN:HA	2.01	0.42
1:D:65:LEU:O	1:U:103:ASN:HB3	2.19	0.42
1:E:455:ALA:HA	1:E:458:GLU:HG2	2.01	0.42
1:G:218:GLY:HA2	1:G:241:ARG:NH1	2.20	0.42
1:H:477:ARG:HH12	1:H:576:LEU:HD23	1.83	0.42
1:K:511:ILE:CG2	1:K:513:MET:HE3	2.48	0.42
1:L:313:GLU:OE1	1:L:313:GLU:N	2.52	0.42
1:M:192:GLN:H	1:M:192:GLN:CD	2.27	0.42
1:M:592:GLN:HG2	1:N:593:VAL:O	2.20	0.42
1:O:583:ARG:HH21	1:O:584:THR:C	2.27	0.42
1:S:119:LYS:HZ2	1:S:122:LYS:C	2.26	0.42
1:S:165:ARG:NH1	1:W:328:MET:HB2	2.33	0.42
1:S:448:ASP:OD2	1:S:495:TYR:OH	2.14	0.42
1:V:323:GLN:HB3	1:V:325:GLN:HE22	1.83	0.42
1:W:546:ASN:O	1:W:548:ARG:HD3	2.19	0.42
1:Y:147:THR:HG23	1:Y:150:ARG:H	1.83	0.42
1:Y:380:LYS:HD3	1:Y:409:TYR:HE2	1.84	0.42
1:Y:434:GLY:HA2	1:Y:489:ARG:HH22	1.83	0.42
1:a:399:GLY:O	1:a:402:GLN:HG3	2.20	0.42
1:b:196:TYR:CD1	1:b:209:LEU:HB2	2.54	0.42
1:b:397:LEU:HD12	1:b:398:GLU:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:428:LYS:NZ	1:b:580:ILE:HG12	2.34	0.42
1:d:472:ILE:HG23	1:d:513:MET:HE1	2.01	0.42
1:e:115:ALA:HB1	1:e:126:ASP:HB3	2.01	0.42
1:f:239:GLY:HA3	1:f:274:LYS:NZ	2.34	0.42
1:h:49:LEU:HD21	1:h:523:PRO:HB2	2.02	0.42
1:i:544:ILE:HD12	1:i:549:ILE:HA	2.01	0.42
1:B:307:THR:HG22	1:B:309:ILE:HG13	2.01	0.42
1:B:327:PHE:CE1	1:C:192:GLN:HG3	2.54	0.42
1:B:524:HIS:CG	1:B:525:PRO:HD2	2.54	0.42
1:D:261:THR:HB	1:D:300:TYR:CZ	2.54	0.42
1:D:313:GLU:O	1:D:314:MET:HE2	2.20	0.42
1:G:310:ASN:HD22	1:N:549:ILE:HB	1.84	0.42
1:H:307:THR:HG23	1:H:307:THR:O	2.18	0.42
1:H:383:LEU:HD22	1:H:389:HIS:ND1	2.34	0.42
1:H:545:ARG:HE	1:I:153:LYS:NZ	2.18	0.42
1:H:583:ARG:NH2	1:I:587:ASP:H	2.17	0.42
1:K:215:LEU:HD11	1:K:244:LEU:HD12	2.01	0.42
1:K:312:LEU:HD12	1:K:312:LEU:O	2.19	0.42
1:K:536:GLU:HG2	1:K:556:THR:O	2.19	0.42
1:L:65:LEU:HD12	1:f:146:GLN:HE22	1.84	0.42
1:N:147:THR:OG1	1:N:150:ARG:HG2	2.19	0.42
1:N:232:LEU:HD22	1:N:236:PHE:CE1	2.55	0.42
1:O:437:VAL:O	1:O:440:ILE:HG22	2.20	0.42
1:O:554:ARG:NH1	1:R:311:GLN:HB3	2.34	0.42
1:S:398:GLU:HA	1:T:192:GLN:HE22	1.85	0.42
1:T:109:ASP:HA	1:T:110:PRO:HD2	1.80	0.42
1:T:191:ASP:CG	1:T:192:GLN:H	2.26	0.42
1:U:68:GLU:HG2	1:U:69:LYS:N	2.34	0.42
1:W:105:GLU:OE2	1:W:106:GLN:NE2	2.52	0.42
1:W:337:ILE:HG23	1:W:339:LYS:HZ3	1.85	0.42
1:d:367:ASN:HD22	1:d:559:TYR:HE2	1.67	0.42
1:e:351:ARG:HG2	1:e:352:LEU:H	1.84	0.42
1:e:431:ASP:O	1:i:425:SER:OG	2.33	0.42
1:f:105:GLU:OE2	1:f:106:GLN:NE2	2.52	0.42
1:h:119:LYS:NZ	1:h:121:GLY:O	2.51	0.42
1:h:520:GLU:HB2	1:h:527:GLN:NE2	2.34	0.42
1:i:311:GLN:C	1:i:313:GLU:H	2.27	0.42
1:A:140:ASN:HA	1:A:257:GLY:O	2.18	0.42
1:G:437:VAL:HG21	1:G:484:ILE:HG13	2.02	0.42
1:H:267:ARG:HG2	1:H:268:LEU:N	2.35	0.42
1:I:92:THR:O	1:I:92:THR:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:62:GLY:HA2	1:K:67:GLY:O	2.19	0.42
1:K:248:VAL:C	1:K:264:ARG:HH22	2.27	0.42
1:L:106:GLN:N	1:L:106:GLN:OE1	2.52	0.42
1:L:321:ASP:N	1:L:321:ASP:OD1	2.53	0.42
1:L:545:ARG:O	1:L:548:ARG:HB2	2.19	0.42
1:N:246:VAL:O	1:N:247:LYS:HE2	2.19	0.42
1:N:375:ARG:NH1	1:N:398:GLU:OE1	2.52	0.42
1:P:545:ARG:NE	1:P:545:ARG:HA	2.34	0.42
1:R:359:TYR:HE1	1:R:557:PRO:HB3	1.84	0.42
1:T:575:ASN:OD1	1:T:578:GLU:HB2	2.19	0.42
1:X:205:ARG:HA	1:X:205:ARG:HD2	1.79	0.42
1:Y:439:LYS:HA	1:Y:439:LYS:HD2	1.85	0.42
1:Z:69:LYS:O	1:Z:70:GLN:HB2	2.20	0.42
1:b:81:LEU:HD12	1:d:365:ARG:HH22	1.82	0.42
1:b:476:MET:O	1:b:479:PRO:HD2	2.19	0.42
1:b:506:ARG:HD3	1:c:84:TYR:CE1	2.54	0.42
1:e:565:LEU:HD21	1:e:567:ILE:HB	2.01	0.42
1:e:583:ARG:NH1	1:f:420:LEU:H	2.18	0.42
1:f:375:ARG:HG3	1:f:568:MET:CE	2.50	0.42
1:f:420:LEU:CD1	1:f:432:ILE:HG12	2.49	0.42
1:f:427:ALA:O	1:f:430:THR:OG1	2.32	0.42
1:i:388:PRO:HB2	1:i:406:ARG:NH1	2.34	0.42
1:j:490:THR:OG1	1:j:491:VAL:N	2.53	0.42
1:A:544:ILE:HD12	1:A:549:ILE:HG13	2.01	0.42
1:A:545:ARG:NH1	1:B:314:MET:HG3	2.34	0.42
1:B:40:VAL:HB	1:B:534:ILE:HG22	2.01	0.42
1:B:53:ARG:NH2	1:B:55:LEU:HD21	2.34	0.42
1:C:337:ILE:HB	1:C:553:ILE:HG12	2.01	0.42
1:C:486:GLY:H	1:D:487:ASP:HB3	1.84	0.42
1:D:338:VAL:HG11	1:P:158:PHE:CE2	2.55	0.42
1:D:511:ILE:HG21	1:D:513:MET:HE3	2.01	0.42
1:G:397:LEU:HD23	1:G:398:GLU:O	2.20	0.42
1:G:399:GLY:O	1:G:402:GLN:NE2	2.53	0.42
1:G:522:GLU:N	1:G:522:GLU:OE2	2.53	0.42
1:H:28:HIS:CE1	1:H:30:PHE:H	2.38	0.42
1:H:347:LYS:HA	1:I:52:ARG:HH22	1.84	0.42
1:I:160:ASP:HB3	1:I:306:LEU:HD11	2.01	0.42
1:K:66:SER:O	1:R:143:MET:HE1	2.20	0.42
1:K:448:ASP:OD1	1:K:495:TYR:OH	2.37	0.42
1:M:591:THR:HG22	1:N:593:VAL:HG11	2.00	0.42
1:N:333:PRO:HA	1:N:334:PRO:HD3	1.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:365:ARG:HH21	1:R:81:LEU:HD13	1.85	0.42
1:O:554:ARG:HD3	1:O:554:ARG:HA	1.91	0.42
1:P:329:ILE:HA	1:P:330:PRO:HD3	1.94	0.42
1:P:420:LEU:HD13	1:P:432:ILE:HD13	2.01	0.42
1:Q:439:LYS:NZ	1:Q:443:MET:SD	2.92	0.42
1:Q:538:LEU:HD21	1:Q:555:LEU:HD12	2.01	0.42
1:X:51:ILE:HD11	1:X:400:VAL:HB	2.00	0.42
1:a:508:LYS:HD3	1:a:509:ASP:H	1.83	0.42
1:b:545:ARG:HA	1:b:545:ARG:HD2	1.77	0.42
1:b:592:GLN:OE1	1:b:597:SER:OG	2.24	0.42
1:c:449:GLN:OE1	1:c:450:LEU:HD22	2.20	0.42
1:d:575:ASN:OD1	1:d:578:GLU:HB2	2.19	0.42
1:e:545:ARG:NH1	1:e:545:ARG:HB2	2.34	0.42
1:f:517:LEU:HB2	1:f:527:GLN:OE1	2.19	0.42
1:g:490:THR:HG21	1:g:497:TYR:CZ	2.55	0.42
1:i:504:ASP:OD1	1:i:505:LEU:N	2.53	0.42
1:D:436:ILE:O	1:D:440:ILE:HG23	2.20	0.42
1:E:266:LEU:H	1:U:135:ASN:ND2	2.18	0.42
1:E:441:ASN:O	1:E:444:VAL:HG12	2.20	0.42
1:E:546:ASN:HB2	1:E:548:ARG:HH21	1.84	0.42
1:H:392:GLU:HA	1:H:402:GLN:HE22	1.83	0.42
1:J:310:ASN:OD1	1:i:548:ARG:HA	2.20	0.42
1:K:523:PRO:HG3	1:K:530:VAL:HG11	2.01	0.42
1:L:57:TRP:CZ2	1:L:60:TRP:HD1	2.36	0.42
1:L:66:SER:OG	1:f:103:ASN:HB3	2.19	0.42
1:L:196:TYR:CE1	1:L:209:LEU:HB2	2.55	0.42
1:M:445:TYR:HD1	1:M:445:TYR:HA	1.77	0.42
1:N:382:TYR:OH	1:N:394:ASN:OD1	2.30	0.42
1:P:453:TYR:CZ	1:P:457:LEU:HD21	2.55	0.42
1:P:478:LEU:O	1:P:481:TYR:N	2.45	0.42
1:R:591:THR:O	1:R:593:VAL:HG23	2.19	0.42
1:S:204:PHE:C	1:S:205:ARG:HD3	2.45	0.42
1:S:545:ARG:HG3	1:T:153:LYS:NZ	2.35	0.42
1:U:422:ASN:ND2	1:U:428:LYS:HA	2.35	0.42
1:X:104:ASP:O	1:X:104:ASP:CG	2.62	0.42
1:Y:153:LYS:HE2	1:Y:153:LYS:HA	2.02	0.42
1:Y:206:LEU:O	1:Y:207:MET:HE2	2.20	0.42
1:Y:480:GLN:HG3	1:Z:445:TYR:CE2	2.55	0.42
1:Z:363:GLN:NE2	1:Z:364:MET:HB2	2.35	0.42
1:Z:447:ALA:HB2	1:Z:569:LEU:HD21	2.01	0.42
1:a:158:PHE:CE2	1:h:61:THR:HG23	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:478:LEU:N	1:a:479:PRO:HD2	2.35	0.42
1:c:192:GLN:OE1	1:c:192:GLN:N	2.48	0.42
1:c:524:HIS:H	1:c:527:GLN:HE21	1.66	0.42
1:e:380:LYS:HG3	1:e:409:TYR:CE2	2.54	0.42
1:g:116:GLN:O	1:g:127:THR:N	2.49	0.42
1:g:380:LYS:NZ	1:g:411:GLU:HG2	2.34	0.42
1:h:172:LEU:HD11	1:h:183:LEU:HD23	2.01	0.42
1:h:506:ARG:HD3	1:i:84:TYR:CE1	2.55	0.42
1:i:48:GLN:HE22	1:i:325:GLN:N	2.17	0.42
1:A:32:GLU:HA	1:A:35:TYR:O	2.20	0.42
1:B:269:ALA:CB	1:B:270:ARG:HE	2.32	0.42
1:B:313:GLU:C	1:B:314:MET:HE2	2.45	0.42
1:B:436:ILE:O	1:B:440:ILE:HG13	2.20	0.42
1:C:481:TYR:OH	1:D:442:GLU:OE2	2.30	0.42
1:D:37:THR:HA	1:D:531:LEU:HB3	2.01	0.42
1:G:168:LEU:HD13	1:G:171:LEU:HD21	2.01	0.42
1:G:196:TYR:CE1	1:G:209:LEU:HD22	2.55	0.42
1:H:245:ASP:OD1	1:H:245:ASP:N	2.53	0.42
1:H:245:ASP:OD2	1:H:267:ARG:NH2	2.43	0.42
1:H:333:PRO:HB2	1:I:89:THR:HB	2.02	0.42
1:H:416:VAL:HG13	1:H:579:ALA:HB2	2.01	0.42
1:H:524:HIS:ND1	1:H:525:PRO:HD2	2.34	0.42
1:H:534:ILE:HG22	1:H:558:ARG:O	2.19	0.42
1:J:174:SER:OG	1:J:296:THR:OG1	2.13	0.42
1:J:531:LEU:HD13	1:J:561:TYR:HE1	1.84	0.42
1:K:142:LEU:HD12	1:K:142:LEU:HA	1.87	0.42
1:K:380:LYS:HA	1:K:380:LYS:HD3	1.91	0.42
1:L:180:THR:HB	1:L:231:LEU:HD11	2.02	0.42
1:L:359:TYR:CE1	1:L:557:PRO:HB3	2.54	0.42
1:L:467:LYS:NZ	1:L:495:TYR:HA	2.34	0.42
1:M:333:PRO:HA	1:M:334:PRO:HD3	1.76	0.42
1:N:94:LEU:HD11	1:N:306:LEU:HB2	2.01	0.42
1:N:232:LEU:HD22	1:N:236:PHE:CZ	2.55	0.42
1:N:437:VAL:O	1:N:441:ASN:ND2	2.53	0.42
1:O:28:HIS:N	1:O:364:MET:HE3	2.35	0.42
1:O:57:TRP:HH2	1:O:60:TRP:CD1	2.37	0.42
1:O:337:ILE:O	1:O:552:GLU:HA	2.20	0.42
1:P:133:SER:OG	1:P:261:THR:O	2.36	0.42
1:P:347:LYS:O	1:Q:320:SER:HB2	2.19	0.42
1:Q:436:ILE:O	1:Q:440:ILE:HG12	2.19	0.42
1:R:342:MET:HE3	1:R:342:MET:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:99:GLN:NE2	1:T:102:GLU:OE1	2.53	0.42
1:T:477:ARG:HB2	1:U:449:GLN:OE1	2.19	0.42
1:U:443:MET:SD	1:U:569:LEU:HD12	2.59	0.42
1:U:484:ILE:CG2	1:U:487:ASP:H	2.32	0.42
1:V:163:ASP:CG	1:V:164:SER:H	2.24	0.42
1:W:51:ILE:HD11	1:W:404:TYR:HE2	1.85	0.42
1:Y:165:ARG:HD2	1:c:328:MET:HB3	2.02	0.42
1:Z:397:LEU:HB3	1:Z:402:GLN:NE2	2.35	0.42
1:a:143:MET:HE1	1:h:70:GLN:HE21	1.85	0.42
1:a:322:VAL:O	1:a:323:GLN:NE2	2.46	0.42
1:a:593:VAL:O	1:a:593:VAL:HG13	2.20	0.42
1:g:215:LEU:HD23	1:g:215:LEU:H	1.83	0.42
1:g:349:TYR:HD2	1:g:350:PRO:HD2	1.84	0.42
1:g:367:ASN:ND2	1:g:561:TYR:CD2	2.88	0.42
1:g:402:GLN:H	1:g:402:GLN:CD	2.27	0.42
1:g:482:ILE:O	1:g:482:ILE:HG22	2.19	0.42
1:h:165:ARG:HB3	1:j:330:PRO:HB3	2.02	0.42
1:A:426:ALA:HA	1:B:435:LEU:HA	2.01	0.42
1:B:579:ALA:O	1:B:582:GLN:HB2	2.20	0.42
1:B:583:ARG:NH1	1:C:442:GLU:HG2	2.34	0.42
1:D:185:ALA:HB2	1:D:224:VAL:HG22	2.02	0.42
1:E:332:LEU:HD12	1:E:559:TYR:CE1	2.55	0.42
1:G:57:TRP:HE1	1:G:319:ASP:HB2	1.84	0.42
1:I:205:ARG:O	1:I:254:VAL:HG22	2.20	0.42
1:J:422:ASN:O	1:J:586:LEU:HG	2.19	0.42
1:K:428:LYS:HE2	1:K:580:ILE:HA	2.01	0.42
1:K:433:GLN:HE21	1:K:482:ILE:C	2.26	0.42
1:L:86:THR:HG23	1:L:87:LEU:N	2.35	0.42
1:L:548:ARG:HD3	1:L:548:ARG:HA	1.80	0.42
1:M:469:HIS:HA	1:M:496:ASP:OD1	2.20	0.42
1:O:475:ASP:N	1:O:475:ASP:OD1	2.47	0.42
1:P:57:TRP:O	1:P:317:LEU:HB2	2.19	0.42
1:P:327:PHE:HB3	1:P:562:PHE:CE2	2.54	0.42
1:P:363:GLN:HE22	1:P:531:LEU:HD21	1.85	0.42
1:P:580:ILE:HG21	1:Q:442:GLU:HG2	2.02	0.42
1:T:548:ARG:CZ	1:Y:312:LEU:HD11	2.50	0.42
1:U:28:HIS:CD2	1:U:30:PHE:H	2.37	0.42
1:W:342:MET:HE3	1:W:342:MET:HB3	1.84	0.42
1:W:464:ARG:HE	1:W:465:SER:N	2.17	0.42
1:a:196:TYR:CE2	1:a:209:LEU:HB2	2.55	0.42
1:a:379:LEU:HD23	1:a:379:LEU:HA	1.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:64:GLY:O	1:c:66:SER:N	2.52	0.42
1:c:97:VAL:HG22	1:c:125:PHE:CE2	2.55	0.42
1:c:121:GLY:O	1:c:122:LYS:HE2	2.20	0.42
1:d:275:GLU:OE1	1:d:277:LYS:HG2	2.20	0.42
1:d:352:LEU:HD11	1:d:553:ILE:HD13	2.00	0.42
1:f:534:ILE:HB	1:f:558:ARG:CB	2.50	0.42
1:g:139:PHE:CZ	1:g:252:MET:HE1	2.54	0.42
1:g:250:GLY:HA2	1:g:261:THR:HA	2.02	0.42
1:g:505:LEU:HD21	1:j:82:LEU:HD11	2.02	0.42
1:g:592:GLN:NE2	1:g:597:SER:HB3	2.34	0.42
1:h:166:ILE:O	1:h:196:TYR:HD2	2.03	0.42
1:h:540:ASP:N	1:h:540:ASP:OD1	2.52	0.42
1:j:169:LYS:HG2	1:j:170:GLN:HE22	1.84	0.42
1:A:87:LEU:O	1:E:362:GLN:HG3	2.20	0.42
1:A:476:MET:HE2	1:B:449:GLN:HA	2.02	0.42
1:A:482:ILE:H	1:A:482:ILE:HD12	1.84	0.42
1:B:205:ARG:O	1:B:254:VAL:HG22	2.20	0.42
1:B:387:VAL:O	1:B:389:HIS:CE1	2.73	0.42
1:B:468:PRO:HB2	1:B:495:TYR:CE2	2.55	0.42
1:C:55:LEU:HD13	1:C:74:LYS:HG3	2.01	0.42
1:C:172:LEU:HD11	1:C:183:LEU:HD23	2.02	0.42
1:D:261:THR:HB	1:D:300:TYR:OH	2.19	0.42
1:D:375:ARG:CZ	1:D:563:ASN:HB3	2.50	0.42
1:G:260:ASP:OD1	1:G:260:ASP:N	2.52	0.42
1:G:489:ARG:NH1	1:K:429:GLN:HB2	2.34	0.42
1:G:593:VAL:O	1:G:593:VAL:HG23	2.20	0.42
1:H:306:LEU:HG	1:H:308:ASN:HB2	2.00	0.42
1:H:332:LEU:HB2	1:H:557:PRO:HG2	2.01	0.42
1:K:83:ASP:OD1	1:K:84:TYR:N	2.52	0.42
1:M:333:PRO:HD3	1:N:305:ARG:HH21	1.85	0.42
1:Q:539:VAL:HG12	1:Q:554:ARG:HB2	2.02	0.42
1:Q:541:PHE:CE2	1:Q:543:MET:HB2	2.55	0.42
1:R:390:PRO:HB2	1:R:393:SER:HB3	2.02	0.42
1:T:51:ILE:O	1:T:322:VAL:HG23	2.20	0.42
1:U:583:ARG:HE	1:X:418:ASN:C	2.28	0.42
1:V:531:LEU:HD13	1:V:561:TYR:CE1	2.55	0.42
1:W:209:LEU:HD11	1:W:211:PHE:HB2	2.02	0.42
1:X:72:ILE:HG23	1:X:74:LYS:HG2	2.02	0.42
1:Y:264:ARG:HB3	1:Y:264:ARG:CZ	2.50	0.42
1:Z:65:LEU:HD23	1:Z:65:LEU:O	2.20	0.42
1:Z:383:LEU:HD13	1:Z:389:HIS:CD2	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:47:PHE:CE2	1:a:327:PHE:HD2	2.38	0.42
1:a:275:GLU:OE1	1:a:277:LYS:HG3	2.20	0.42
1:a:578:GLU:HG2	1:a:579:ALA:N	2.34	0.42
1:c:218:GLY:O	1:c:236:PHE:HE2	2.03	0.42
1:c:524:HIS:NE2	1:c:526:LEU:HD23	2.35	0.42
1:e:337:ILE:HD11	1:e:350:PRO:HB2	2.02	0.42
1:f:187:ASP:OD1	1:f:187:ASP:N	2.53	0.42
1:f:313:GLU:O	1:f:314:MET:HE2	2.20	0.42
1:g:450:LEU:HD23	1:g:450:LEU:HA	1.83	0.42
1:i:453:TYR:CZ	1:i:457:LEU:HD21	2.55	0.42
1:i:560:ARG:HD2	1:i:561:TYR:N	2.34	0.42
1:j:215:LEU:HD23	1:j:215:LEU:HA	1.87	0.42
1:j:455:ALA:HA	1:j:458:GLU:OE1	2.20	0.42
1:B:199:THR:O	1:B:208:GLN:NE2	2.46	0.41
1:B:437:VAL:HG21	1:B:484:ILE:HG13	2.01	0.41
1:C:86:THR:HG23	1:C:87:LEU:HG	2.01	0.41
1:D:338:VAL:HG11	1:P:158:PHE:HE2	1.85	0.41
1:G:160:ASP:OD2	1:G:306:LEU:HD21	2.20	0.41
1:I:97:VAL:HG22	1:I:125:PHE:CE2	2.55	0.41
1:M:186:LEU:HG	1:M:215:LEU:HD21	2.02	0.41
1:M:212:HIS:HE1	1:M:247:LYS:HE3	1.81	0.41
1:M:380:LYS:NZ	1:M:411:GLU:HG2	2.35	0.41
1:O:428:LYS:O	1:O:432:ILE:HG13	2.20	0.41
1:R:548:ARG:HH22	1:T:312:LEU:HD11	1.85	0.41
1:S:522:GLU:N	1:S:522:GLU:OE1	2.53	0.41
1:T:478:LEU:N	1:T:479:PRO:HD2	2.35	0.41
1:U:240:TYR:CD2	1:U:273:ASP:HA	2.53	0.41
1:W:383:LEU:HD23	1:W:409:TYR:HB2	2.02	0.41
1:Z:191:ASP:CG	1:Z:192:GLN:H	2.28	0.41
1:Z:447:ALA:O	1:Z:451:THR:HG22	2.19	0.41
1:a:201:GLU:CD	1:a:202:TYR:HB2	2.45	0.41
1:b:363:GLN:HG3	1:b:559:TYR:CZ	2.55	0.41
1:c:332:LEU:HB2	1:c:557:PRO:O	2.20	0.41
1:d:453:TYR:HE2	1:d:526:LEU:HD22	1.84	0.41
1:d:589:ASN:OD1	1:d:589:ASN:N	2.53	0.41
1:e:238:LEU:HB3	1:e:240:TYR:CE1	2.55	0.41
1:e:581:ALA:HB2	1:f:439:LYS:HD3	2.00	0.41
1:f:28:HIS:CE1	1:f:30:PHE:H	2.38	0.41
1:f:491:VAL:HG11	1:f:497:TYR:HB3	2.02	0.41
1:h:478:LEU:O	1:h:480:GLN:N	2.53	0.41
1:A:156:MET:SD	1:A:156:MET:N	2.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:548:ARG:HD3	1:A:548:ARG:HA	1.86	0.41
1:B:380:LYS:HG3	1:C:220:GLU:OE1	2.20	0.41
1:C:243:GLU:HB2	1:C:270:ARG:H	1.85	0.41
1:C:478:LEU:O	1:C:480:GLN:N	2.53	0.41
1:D:142:LEU:HA	1:D:142:LEU:HD23	1.80	0.41
1:D:361:ILE:HG21	1:E:77:ILE:HG21	2.01	0.41
1:D:420:LEU:HD13	1:D:431:ASP:OD2	2.20	0.41
1:M:175:VAL:HG23	1:M:293:LEU:HD11	2.01	0.41
1:M:276:GLY:C	1:M:277:LYS:HD3	2.45	0.41
1:O:270:ARG:HA	1:O:281:LEU:HD21	2.03	0.41
1:T:335:LEU:HD23	1:U:316:LEU:HD13	2.02	0.41
1:U:42:PRO:CA	1:U:534:ILE:HD11	2.51	0.41
1:U:531:LEU:HD13	1:U:561:TYR:CD1	2.55	0.41
1:V:269:ALA:HB1	1:V:270:ARG:HE	1.85	0.41
1:V:428:LYS:HD2	1:V:428:LYS:HA	1.87	0.41
1:Y:57:TRP:CE2	1:Y:74:LYS:HE3	2.55	0.41
1:Y:196:TYR:CE1	1:Y:209:LEU:HD22	2.55	0.41
1:Y:596:ALA:HB1	1:Z:595:PRO:HG2	2.01	0.41
1:a:187:ASP:OD1	1:a:187:ASP:O	2.37	0.41
1:a:420:LEU:HD22	1:a:432:ILE:HD11	2.01	0.41
1:b:370:THR:OG1	1:b:506:ARG:NH2	2.44	0.41
1:b:449:GLN:OE1	1:d:476:MET:HB3	2.20	0.41
1:c:330:PRO:HD2	1:c:560:ARG:HB2	2.01	0.41
1:c:331:THR:C	1:c:332:LEU:HD12	2.45	0.41
1:e:90:ASN:ND2	1:e:93:GLU:HG3	2.31	0.41
1:e:560:ARG:CZ	1:f:165:ARG:HH22	2.33	0.41
1:h:81:LEU:HD12	1:j:365:ARG:NH1	2.36	0.41
1:h:365:ARG:HE	1:i:81:LEU:HD11	1.85	0.41
1:i:180:THR:HB	1:i:231:LEU:HD21	2.01	0.41
1:A:547:GLN:HB2	1:A:548:ARG:NH2	2.35	0.41
1:B:359:TYR:CE1	1:B:557:PRO:HB3	2.55	0.41
1:B:531:LEU:CD2	1:B:533:PHE:HB2	2.50	0.41
1:D:247:LYS:HG3	1:D:265:ALA:HB3	2.01	0.41
1:D:510:LYS:HE3	1:D:510:LYS:HB2	1.82	0.41
1:E:57:TRP:CZ2	1:E:60:TRP:HB3	2.55	0.41
1:E:545:ARG:HA	1:E:545:ARG:HD3	1.86	0.41
1:G:306:LEU:HG	1:G:308:ASN:HB2	2.02	0.41
1:G:419:ASP:HA	1:K:583:ARG:HD3	2.02	0.41
1:G:584:THR:HG23	1:G:584:THR:O	2.21	0.41
1:H:240:TYR:CD1	1:H:273:ASP:HA	2.55	0.41
1:H:522:GLU:O	1:H:524:HIS:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:30:PHE:CE2	1:I:502:ILE:HD11	2.55	0.41
1:I:95:ILE:HD12	1:I:96:PRO:HD2	2.01	0.41
1:J:421:ASN:OD1	1:L:583:ARG:HD2	2.20	0.41
1:J:544:ILE:HD11	1:J:547:GLN:HA	2.02	0.41
1:K:511:ILE:HG22	1:K:513:MET:HE3	2.01	0.41
1:L:57:TRP:CH2	1:L:60:TRP:CD1	3.08	0.41
1:L:484:ILE:O	1:L:484:ILE:HG22	2.20	0.41
1:M:311:GLN:O	1:M:312:LEU:HD23	2.21	0.41
1:P:196:TYR:CD1	1:P:209:LEU:HD13	2.55	0.41
1:P:404:TYR:CE2	1:P:456:ALA:HB1	2.56	0.41
1:S:439:LYS:O	1:S:442:GLU:HG3	2.21	0.41
1:T:113:LEU:HG	1:T:116:GLN:HE22	1.85	0.41
1:U:523:PRO:HG3	1:U:530:VAL:HG21	2.02	0.41
1:W:337:ILE:HG22	1:W:553:ILE:HB	2.01	0.41
1:W:376:ALA:HA	1:W:568:MET:HE1	2.02	0.41
1:Y:89:THR:CG2	1:Y:316:LEU:HD21	2.50	0.41
1:Y:243:GLU:OE1	1:Y:269:ALA:HB3	2.19	0.41
1:Z:491:VAL:HG22	1:Z:497:TYR:CD1	2.56	0.41
1:c:410:ASN:OD1	1:c:411:GLU:N	2.53	0.41
1:d:375:ARG:O	1:d:375:ARG:HD3	2.19	0.41
1:f:35:TYR:CD1	1:f:529:GLY:HA3	2.53	0.41
1:f:390:PRO:O	1:f:393:SER:OG	2.32	0.41
1:i:76:ASN:OD1	1:i:77:ILE:N	2.53	0.41
1:i:204:PHE:CZ	1:i:205:ARG:HD3	2.56	0.41
1:i:424:THR:HG22	1:i:426:ALA:H	1.85	0.41
1:j:184:PHE:CZ	1:j:229:SER:HB2	2.55	0.41
1:j:293:LEU:HD12	1:j:293:LEU:HA	1.88	0.41
1:A:74:LYS:NZ	1:A:319:ASP:OD2	2.45	0.41
1:C:161:SER:HB3	1:C:307:THR:OG1	2.20	0.41
1:E:93:GLU:OE2	1:E:305:ARG:NH1	2.53	0.41
1:I:480:GLN:NE2	1:L:445:TYR:CZ	2.88	0.41
1:K:309:ILE:HD12	1:K:309:ILE:HG23	1.82	0.41
1:K:547:GLN:O	1:K:548:ARG:HD3	2.20	0.41
1:M:424:THR:HG22	1:N:423:LEU:HD23	2.03	0.41
1:N:53:ARG:HE	1:N:55:LEU:HD11	1.85	0.41
1:N:185:ALA:HB3	1:N:224:VAL:HG21	2.02	0.41
1:N:247:LYS:HG3	1:N:265:ALA:HB3	2.02	0.41
1:Q:97:VAL:HG22	1:Q:125:PHE:CE2	2.55	0.41
1:U:410:ASN:HB3	1:U:569:LEU:CD1	2.50	0.41
1:U:542:ASN:HD21	1:U:549:ILE:HD11	1.84	0.41
1:V:82:LEU:HD23	1:V:82:LEU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:337:ILE:HD12	1:Y:349:TYR:CE1	2.55	0.41
1:Z:523:PRO:HG3	1:Z:530:VAL:HG11	2.02	0.41
1:b:525:PRO:HG2	1:b:526:LEU:HD12	2.03	0.41
1:d:307:THR:HG23	1:d:307:THR:O	2.20	0.41
1:e:253:ASN:HD21	1:e:255:GLU:HB3	1.85	0.41
1:e:365:ARG:CD	1:e:502:ILE:HD11	2.51	0.41
1:f:440:ILE:HD11	1:f:513:MET:HG3	2.01	0.41
1:g:373:LEU:HD23	1:g:373:LEU:HA	1.90	0.41
1:i:247:LYS:CG	1:i:265:ALA:HB3	2.49	0.41
1:i:273:ASP:OD1	1:i:277:LYS:N	2.53	0.41
1:j:62:GLY:H	1:j:66:SER:HB3	1.85	0.41
1:A:29:GLU:HA	1:A:32:GLU:OE2	2.20	0.41
1:B:53:ARG:HG2	1:B:321:ASP:O	2.21	0.41
1:B:99:GLN:HE21	1:J:65:LEU:HD11	1.85	0.41
1:B:172:LEU:HD22	1:B:298:VAL:HB	2.02	0.41
1:D:435:LEU:HD12	1:D:435:LEU:HA	1.88	0.41
1:E:480:GLN:HG3	1:E:481:TYR:CE1	2.56	0.41
1:G:193:TYR:CZ	1:R:202:TYR:HD1	2.38	0.41
1:G:337:ILE:HB	1:G:355:LEU:HD21	2.01	0.41
1:G:439:LYS:HD2	1:G:439:LYS:HA	1.75	0.41
1:H:41:THR:OG1	1:H:42:PRO:HD2	2.20	0.41
1:H:416:VAL:HG11	1:H:576:LEU:HA	2.02	0.41
1:I:142:LEU:HD12	1:I:156:MET:HE2	2.01	0.41
1:I:380:LYS:HE3	1:I:409:TYR:CE2	2.55	0.41
1:L:467:LYS:HD3	1:L:468:PRO:N	2.36	0.41
1:M:541:PHE:HZ	1:N:311:GLN:NE2	2.19	0.41
1:N:465:SER:HB2	1:N:467:LYS:HZ2	1.85	0.41
1:N:476:MET:HE1	1:N:501:ARG:NE	2.35	0.41
1:O:347:LYS:HD2	1:O:347:LYS:O	2.20	0.41
1:P:419:ASP:HB3	1:P:435:LEU:HD21	2.03	0.41
1:R:28:HIS:CE1	1:R:29:GLU:HG3	2.56	0.41
1:S:480:GLN:HG3	1:T:445:TYR:CE2	2.55	0.41
1:T:31:ALA:HB3	1:T:364:MET:HG2	2.03	0.41
1:T:386:GLY:HA2	1:T:408:TYR:CE1	2.54	0.41
1:U:583:ARG:HB2	1:X:419:ASP:HA	2.02	0.41
1:V:590:GLU:O	1:W:593:VAL:HB	2.21	0.41
1:W:246:VAL:HG22	1:W:266:LEU:HD13	2.02	0.41
1:W:538:LEU:HD12	1:W:554:ARG:O	2.21	0.41
1:X:119:LYS:HE3	1:X:119:LYS:HB3	1.89	0.41
1:a:56:VAL:HG23	1:a:75:ARG:NE	2.35	0.41
1:a:168:LEU:HD11	1:a:209:LEU:HD21	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:472:ILE:HB	1:a:499:ILE:HD13	2.03	0.41
1:c:328:MET:HE2	1:c:328:MET:HA	2.02	0.41
1:d:173:ILE:HD12	1:d:173:ILE:HA	1.86	0.41
1:e:484:ILE:HD12	1:e:489:ARG:HB3	2.01	0.41
1:e:534:ILE:HG23	1:e:536:GLU:OE2	2.19	0.41
1:f:484:ILE:HG21	1:f:487:ASP:HB2	2.01	0.41
1:g:273:ASP:OD1	1:g:277:LYS:N	2.48	0.41
1:g:367:ASN:ND2	1:g:561:TYR:HD2	2.18	0.41
1:g:367:ASN:HD22	1:g:561:TYR:HD2	1.65	0.41
1:g:439:LYS:HD2	1:g:443:MET:HG2	2.03	0.41
1:h:554:ARG:NH2	1:i:313:GLU:O	2.50	0.41
1:h:583:ARG:HH21	1:h:584:THR:C	2.29	0.41
1:i:444:VAL:HG22	1:i:513:MET:CE	2.50	0.41
1:B:387:VAL:HG12	1:B:389:HIS:CE1	2.56	0.41
1:C:343:VAL:HG22	1:U:309:ILE:HD11	2.02	0.41
1:C:363:GLN:HB3	1:C:559:TYR:CE1	2.56	0.41
1:D:28:HIS:HD1	1:E:458:GLU:CD	2.28	0.41
1:D:76:ASN:OD1	1:D:78:LEU:N	2.47	0.41
1:D:302:LEU:HD23	1:D:302:LEU:HA	1.93	0.41
1:D:480:GLN:HG3	1:D:481:TYR:CD1	2.56	0.41
1:G:137:GLU:OE2	1:O:69:LYS:HG2	2.20	0.41
1:G:314:MET:HE1	1:K:545:ARG:NE	2.36	0.41
1:H:429:GLN:O	1:H:432:ILE:HG22	2.20	0.41
1:I:591:THR:O	1:I:593:VAL:HG13	2.20	0.41
1:J:97:VAL:HG22	1:J:125:PHE:CD2	2.56	0.41
1:J:389:HIS:O	1:J:406:ARG:HD2	2.20	0.41
1:J:449:GLN:HE22	1:L:475:ASP:HB2	1.86	0.41
1:K:281:LEU:HD12	1:K:281:LEU:O	2.21	0.41
1:K:449:GLN:OE1	1:K:450:LEU:HD23	2.20	0.41
1:M:363:GLN:HA	1:M:559:TYR:OH	2.19	0.41
1:O:196:TYR:CE1	1:O:209:LEU:HD22	2.56	0.41
1:O:536:GLU:OE1	1:O:558:ARG:NH2	2.51	0.41
1:Q:380:LYS:HD3	1:Q:409:TYR:HE2	1.86	0.41
1:S:474:THR:O	1:S:502:ILE:HG22	2.21	0.41
1:V:82:LEU:HD11	1:V:406:ARG:HD2	2.02	0.41
1:V:587:ASP:O	1:X:585:ALA:HB1	2.20	0.41
1:W:252:MET:SD	1:W:259:GLY:HA3	2.60	0.41
1:Y:422:ASN:O	1:Y:586:LEU:HG	2.20	0.41
1:Y:593:VAL:N	1:c:590:GLU:OE1	2.36	0.41
1:Z:383:LEU:CD1	1:Z:389:HIS:HD2	2.33	0.41
1:a:153:LYS:HA	1:a:153:LYS:HD2	1.70	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:583:ARG:HH22	1:c:421:ASN:N	2.18	0.41
1:d:146:GLN:O	1:d:146:GLN:HG3	2.21	0.41
1:d:531:LEU:HD13	1:d:561:TYR:CE1	2.56	0.41
1:e:366:ASN:ND2	1:f:84:TYR:O	2.54	0.41
1:f:28:HIS:CE1	1:f:502:ILE:HD13	2.55	0.41
1:f:332:LEU:CB	1:f:557:PRO:HG2	2.46	0.41
1:h:260:ASP:OD2	1:h:261:THR:N	2.53	0.41
1:h:380:LYS:HZ2	1:h:385:VAL:HG22	1.86	0.41
1:j:169:LYS:HD2	1:j:303:GLU:HB3	2.01	0.41
1:A:339:LYS:HD2	1:A:340:PRO:HD2	2.03	0.41
1:A:428:LYS:HG3	1:A:583:ARG:HG2	2.02	0.41
1:A:579:ALA:O	1:A:582:GLN:HB2	2.21	0.41
1:C:123:ASP:OD2	1:C:149:SER:N	2.53	0.41
1:C:586:LEU:HD21	1:D:419:ASP:HA	2.01	0.41
1:E:57:TRP:NE1	1:E:59:GLY:O	2.53	0.41
1:G:169:LYS:HE2	1:G:301:SER:HB2	2.02	0.41
1:G:192:GLN:OE1	1:G:192:GLN:HA	2.21	0.41
1:G:543:MET:SD	1:G:545:ARG:HB2	2.61	0.41
1:J:266:LEU:HD11	1:J:296:THR:HA	2.02	0.41
1:J:591:THR:O	1:J:593:VAL:HG23	2.21	0.41
1:K:94:LEU:HD12	1:K:95:ILE:N	2.36	0.41
1:K:363:GLN:NE2	1:K:364:MET:HB2	2.36	0.41
1:L:65:LEU:HD12	1:L:65:LEU:HA	1.80	0.41
1:M:590:GLU:HA	1:Q:588:VAL:O	2.20	0.41
1:N:77:ILE:HD11	1:N:87:LEU:HD22	2.02	0.41
1:N:219:GLU:HA	1:N:236:PHE:CD1	2.55	0.41
1:N:229:SER:HB2	1:N:236:PHE:HZ	1.86	0.41
1:P:90:ASN:ND2	1:P:120:GLN:OE1	2.54	0.41
1:R:351:ARG:HE	1:R:352:LEU:H	1.68	0.41
1:R:490:THR:HG21	1:R:497:TYR:CZ	2.56	0.41
1:T:86:THR:OG1	1:T:87:LEU:N	2.54	0.41
1:T:544:ILE:HG23	1:T:544:ILE:O	2.20	0.41
1:U:429:GLN:O	1:U:432:ILE:HG13	2.21	0.41
1:W:457:LEU:HD23	1:W:457:LEU:HA	1.90	0.41
1:X:86:THR:HG23	1:X:87:LEU:HD23	2.01	0.41
1:Y:332:LEU:HB2	1:Y:557:PRO:HG2	2.03	0.41
1:Y:351:ARG:HG2	1:Y:353:GLU:H	1.84	0.41
1:Y:595:PRO:HD3	1:c:592:GLN:OE1	2.21	0.41
1:Z:481:TYR:CE2	1:Z:576:LEU:HD11	2.56	0.41
1:b:593:VAL:O	1:b:593:VAL:HG23	2.19	0.41
1:d:66:SER:OG	1:d:67:GLY:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:317:LEU:HD11	1:i:338:VAL:HB	2.03	0.41
1:e:536:GLU:OE2	1:e:558:ARG:NH1	2.54	0.41
1:f:588:VAL:HG12	1:g:590:GLU:HA	2.03	0.41
1:g:592:GLN:HB3	1:g:597:SER:OG	2.21	0.41
1:h:426:ALA:CA	1:i:489:ARG:HH21	2.33	0.41
1:A:527:GLN:OE1	1:A:528:HIS:N	2.53	0.41
1:A:560:ARG:NH2	1:B:165:ARG:HH22	2.19	0.41
1:B:524:HIS:HE1	1:B:526:LEU:HG	1.84	0.41
1:C:586:LEU:HD11	1:D:419:ASP:HA	2.03	0.41
1:E:81:LEU:HD12	1:E:455:ALA:HB1	2.02	0.41
1:E:549:ILE:O	1:E:549:ILE:HG13	2.21	0.41
1:G:135:ASN:C	1:G:135:ASN:OD1	2.63	0.41
1:G:201:GLU:OE1	1:G:202:TYR:HB2	2.21	0.41
1:H:375:ARG:NH1	1:H:563:ASN:HB3	2.35	0.41
1:I:520:GLU:HG3	1:I:522:GLU:H	1.85	0.41
1:J:200:ARG:CG	1:e:324:LYS:HZ3	2.31	0.41
1:K:251:GLU:HB2	1:K:260:ASP:OD1	2.21	0.41
1:L:60:TRP:CG	1:f:158:PHE:CE1	3.09	0.41
1:L:247:LYS:HD3	1:L:264:ARG:HH21	1.85	0.41
1:M:33:LEU:O	1:M:516:ILE:HD13	2.20	0.41
1:M:165:ARG:NH2	1:Q:560:ARG:HH12	2.19	0.41
1:N:91:SER:HA	1:N:120:GLN:NE2	2.36	0.41
1:O:119:LYS:HD2	1:O:123:ASP:O	2.21	0.41
1:Q:57:TRP:NE1	1:Q:319:ASP:OD1	2.54	0.41
1:Q:161:SER:O	1:Q:307:THR:OG1	2.38	0.41
1:Q:169:LYS:HB2	1:Q:303:GLU:HB2	2.03	0.41
1:Q:531:LEU:HD13	1:Q:561:TYR:CD1	2.55	0.41
1:U:472:ILE:HB	1:U:499:ILE:HD13	2.02	0.41
1:U:545:ARG:HG3	1:b:547:GLN:CD	2.46	0.41
1:U:588:VAL:HG21	1:X:588:VAL:HB	2.02	0.41
1:V:479:PRO:HA	1:V:482:ILE:HG22	2.03	0.41
1:W:338:VAL:HG22	1:W:552:GLU:OE2	2.20	0.41
1:X:429:GLN:HA	1:X:432:ILE:HG22	2.02	0.41
1:Y:153:LYS:HZ1	1:c:545:ARG:HB2	1.86	0.41
1:Z:247:LYS:N	1:Z:265:ALA:O	2.51	0.41
1:Z:392:GLU:CD	1:Z:395:LEU:HD21	2.45	0.41
1:c:590:GLU:O	1:c:590:GLU:HG2	2.21	0.41
1:d:36:ARG:NE	1:d:520:GLU:O	2.54	0.41
1:d:140:ASN:HA	1:d:257:GLY:O	2.20	0.41
1:d:337:ILE:HG12	1:d:349:TYR:CD1	2.56	0.41
1:d:472:ILE:HG13	1:d:513:MET:SD	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:397:LEU:N	1:f:192:GLN:HE22	2.18	0.41
1:f:375:ARG:NH1	1:f:398:GLU:HB2	2.36	0.41
1:f:507:MET:O	1:f:507:MET:HG2	2.21	0.41
1:g:380:LYS:HD3	1:g:409:TYR:CE2	2.53	0.41
1:h:243:GLU:OE2	1:h:243:GLU:N	2.54	0.41
1:h:479:PRO:HG2	1:h:501:ARG:HG2	2.03	0.41
1:h:504:ASP:OD1	1:h:505:LEU:N	2.54	0.41
1:A:402:GLN:HG3	1:A:566:PRO:HG3	2.03	0.41
1:A:449:GLN:HG2	1:E:476:MET:HB2	2.03	0.41
1:A:548:ARG:HH12	1:e:312:LEU:HD21	1.85	0.41
1:B:545:ARG:HH12	1:C:153:LYS:CE	2.33	0.41
1:C:357:THR:O	1:C:361:ILE:HG13	2.21	0.41
1:C:383:LEU:HG	1:C:389:HIS:CE1	2.56	0.41
1:D:48:GLN:N	1:D:48:GLN:OE1	2.54	0.41
1:D:246:VAL:O	1:D:247:LYS:HE2	2.21	0.41
1:D:489:ARG:HE	1:D:489:ARG:HB3	1.74	0.41
1:E:132:PHE:CD1	1:E:263:LEU:HB2	2.56	0.41
1:E:149:SER:O	1:E:153:LYS:HG2	2.21	0.41
1:E:335:LEU:HD23	1:E:335:LEU:HA	1.83	0.41
1:E:361:ILE:HG23	1:E:365:ARG:HH21	1.86	0.41
1:E:375:ARG:NH1	1:E:563:ASN:HB3	2.35	0.41
1:G:593:VAL:CG2	1:K:590:GLU:HB2	2.50	0.41
1:H:594:THR:O	1:H:596:ALA:N	2.50	0.41
1:I:337:ILE:HG12	1:I:338:VAL:N	2.36	0.41
1:J:583:ARG:HD3	1:K:587:ASP:OD2	2.21	0.41
1:L:325:GLN:HG3	1:L:400:VAL:HG11	2.02	0.41
1:L:467:LYS:HE3	1:L:494:GLY:O	2.21	0.41
1:M:474:THR:O	1:M:502:ILE:HG22	2.20	0.41
1:N:232:LEU:HD23	1:N:232:LEU:O	2.20	0.41
1:N:464:ARG:NH2	1:N:465:SER:O	2.54	0.41
1:N:474:THR:OG1	1:N:478:LEU:HB2	2.20	0.41
1:O:243:GLU:N	1:O:243:GLU:OE1	2.54	0.41
1:P:172:LEU:O	1:P:298:VAL:HB	2.21	0.41
1:Q:94:LEU:HD21	1:Q:306:LEU:HB2	2.02	0.41
1:Q:517:LEU:HA	1:Q:518:PRO:HD3	1.94	0.41
1:S:171:LEU:HD13	1:S:188:VAL:HG11	2.03	0.41
1:S:429:GLN:O	1:S:432:ILE:HG13	2.21	0.41
1:T:313:GLU:C	1:T:314:MET:HE2	2.45	0.41
1:T:380:LYS:HB2	1:T:380:LYS:HE2	1.82	0.41
1:T:414:ILE:CD1	1:T:439:LYS:HG3	2.51	0.41
1:T:592:GLN:HG2	1:U:593:VAL:HG12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:86:THR:HG22	1:U:87:LEU:HD22	2.03	0.41
1:U:153:LYS:NZ	1:U:312:LEU:HB2	2.36	0.41
1:U:339:LYS:HD3	1:U:349:TYR:CD2	2.55	0.41
1:U:392:GLU:OE2	1:U:395:LEU:HD21	2.21	0.41
1:V:161:SER:O	1:V:306:LEU:HD12	2.21	0.41
1:V:338:VAL:HB	1:W:317:LEU:HD11	2.02	0.41
1:W:345:ASP:OD2	1:W:348:THR:OG1	2.34	0.41
1:W:363:GLN:NE2	1:W:531:LEU:HD21	2.29	0.41
1:X:423:LEU:HD12	1:X:586:LEU:HD11	2.03	0.41
1:X:491:VAL:HG21	1:X:497:TYR:HB3	2.02	0.41
1:Y:123:ASP:CG	1:Y:149:SER:HG	2.29	0.41
1:Y:134:GLU:HG2	1:Y:135:ASN:N	2.35	0.41
1:Y:318:ILE:HB	1:c:337:ILE:HD13	2.03	0.41
1:Y:433:GLN:HA	1:Y:436:ILE:HG22	2.03	0.41
1:Z:28:HIS:CG	1:Z:365:ARG:HH12	2.39	0.41
1:a:52:ARG:HD2	1:a:52:ARG:HA	1.85	0.41
1:a:55:LEU:HD22	1:a:74:LYS:HB3	2.03	0.41
1:a:339:LYS:HD2	1:a:349:TYR:CD1	2.55	0.41
1:a:583:ARG:HG2	1:d:587:ASP:OD2	2.20	0.41
1:c:264:ARG:HG3	1:c:264:ARG:NH1	2.36	0.41
1:c:287:SER:O	1:c:291:SER:N	2.54	0.41
1:d:131:LYS:HB3	1:d:131:LYS:HE2	1.85	0.41
1:e:176:THR:HA	1:e:180:THR:O	2.20	0.41
1:e:305:ARG:NH1	1:i:332:LEU:HA	2.36	0.41
1:e:348:THR:O	1:f:320:SER:HB3	2.21	0.41
1:e:422:ASN:HD22	1:e:428:LYS:HD3	1.86	0.41
1:e:424:THR:HG22	1:e:426:ALA:H	1.86	0.41
1:e:587:ASP:H	1:i:583:ARG:NH2	2.05	0.41
1:f:440:ILE:HD12	1:f:440:ILE:HA	1.86	0.41
1:f:506:ARG:HD3	1:g:84:TYR:CE1	2.55	0.41
1:f:537:TYR:HB2	1:f:556:THR:OG1	2.20	0.41
1:g:201:GLU:OE1	1:g:202:TYR:HB2	2.21	0.41
1:g:228:GLU:HG3	1:g:229:SER:O	2.21	0.41
1:g:326:GLY:C	1:g:327:PHE:HD1	2.28	0.41
1:g:583:ARG:HH21	1:j:418:ASN:HA	1.84	0.41
1:h:477:ARG:HD2	1:h:576:LEU:HD23	2.01	0.41
1:i:139:PHE:HE2	1:i:141:LEU:HB2	1.86	0.41
1:i:256:ASN:HB3	1:i:258:ASN:OD1	2.20	0.41
1:i:308:ASN:ND2	1:i:311:GLN:HA	2.35	0.41
1:i:388:PRO:HB2	1:i:406:ARG:HH12	1.85	0.41
1:i:579:ALA:HA	1:i:584:THR:OG1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:264:ARG:HH22	1:P:262:SER:N	2.19	0.41
1:A:266:LEU:HD21	1:A:295:VAL:HG12	2.03	0.41
1:B:106:GLN:OE1	1:J:67:GLY:HA3	2.21	0.41
1:B:134:GLU:N	1:B:134:GLU:OE1	2.54	0.41
1:C:543:MET:HG2	1:C:544:ILE:N	2.36	0.41
1:E:247:LYS:N	1:E:265:ALA:O	2.52	0.41
1:E:313:GLU:OE1	1:E:313:GLU:N	2.53	0.41
1:E:342:MET:SD	1:E:549:ILE:HD11	2.60	0.41
1:H:484:ILE:HG22	1:H:487:ASP:H	1.85	0.41
1:I:57:TRP:CE2	1:I:74:LYS:HE2	2.56	0.41
1:I:464:ARG:O	1:I:466:PRO:HD3	2.21	0.41
1:J:28:HIS:CG	1:J:29:GLU:N	2.89	0.41
1:J:379:LEU:HD23	1:J:379:LEU:HA	1.83	0.41
1:K:206:LEU:HD21	1:K:251:GLU:OE2	2.20	0.41
1:P:554:ARG:HH12	1:Q:311:GLN:HB3	1.85	0.41
1:Q:246:VAL:HG22	1:Q:248:VAL:HG23	2.02	0.41
1:Q:311:GLN:O	1:Q:312:LEU:HD23	2.21	0.41
1:R:453:TYR:HE2	1:R:468:PRO:HB3	1.86	0.41
1:S:247:LYS:HB3	1:S:265:ALA:H	1.86	0.41
1:S:247:LYS:HB3	1:S:265:ALA:N	2.36	0.41
1:U:41:THR:OG1	1:U:44:GLN:OE1	2.39	0.41
1:U:514:THR:HG23	1:U:516:ILE:HD11	2.02	0.41
1:U:590:GLU:O	1:X:593:VAL:HG21	2.20	0.41
1:V:196:TYR:CZ	1:V:209:LEU:HD22	2.56	0.41
1:V:268:LEU:HD11	1:V:290:LEU:HD22	2.02	0.41
1:X:212:HIS:HE1	1:Y:251:GLU:HG3	1.85	0.41
1:X:223:THR:OG1	1:X:226:GLY:O	2.39	0.41
1:X:594:THR:O	1:X:596:ALA:N	2.54	0.41
1:Y:476:MET:HA	1:Y:476:MET:HE3	2.03	0.41
1:Z:62:GLY:C	1:i:156:MET:HE2	2.46	0.41
1:Z:199:THR:HB	1:Z:208:GLN:HB3	2.02	0.41
1:Z:490:THR:HB	1:Z:497:TYR:CE1	2.56	0.41
1:f:479:PRO:HG2	1:f:501:ARG:HG3	2.03	0.41
1:j:223:THR:HG22	1:j:225:ALA:H	1.86	0.41
1:A:65:LEU:HB3	1:K:102:GLU:OE2	2.21	0.40
1:A:144:LEU:HD23	1:A:144:LEU:HA	1.88	0.40
1:A:340:PRO:HB3	1:e:309:ILE:CG2	2.51	0.40
1:B:321:ASP:OD1	1:B:322:VAL:N	2.54	0.40
1:C:36:ARG:NH2	1:C:517:LEU:O	2.44	0.40
1:C:510:LYS:HE2	1:C:510:LYS:HB3	1.67	0.40
1:G:332:LEU:HD22	1:G:557:PRO:HG2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:408:TYR:HE2	1:G:447:ALA:HA	1.86	0.40
1:H:443:MET:HE2	1:H:443:MET:HA	2.02	0.40
1:H:472:ILE:HD13	1:H:513:MET:HG2	2.03	0.40
1:J:47:PHE:O	1:J:327:PHE:HB2	2.21	0.40
1:J:177:LYS:HB2	1:J:293:LEU:HD23	2.02	0.40
1:K:47:PHE:CE2	1:K:327:PHE:HD1	2.39	0.40
1:L:330:PRO:O	1:L:558:ARG:HB2	2.20	0.40
1:O:336:VAL:HG22	1:O:554:ARG:CD	2.51	0.40
1:O:348:THR:O	1:R:320:SER:N	2.54	0.40
1:P:336:VAL:HA	1:P:553:ILE:O	2.21	0.40
1:R:163:ASP:HB2	1:R:305:ARG:HG2	2.02	0.40
1:S:589:ASN:OD1	1:W:587:ASP:HA	2.20	0.40
1:U:429:GLN:HB2	1:X:489:ARG:HH22	1.86	0.40
1:W:169:LYS:HG3	1:W:170:GLN:HG3	2.03	0.40
1:W:477:ARG:HH12	1:W:576:LEU:HD22	1.86	0.40
1:Y:544:ILE:HD12	1:Y:549:ILE:HG13	2.03	0.40
1:Z:93:GLU:OE2	1:Z:305:ARG:NH1	2.33	0.40
1:Z:428:LYS:HZ3	1:Z:580:ILE:HA	1.86	0.40
1:a:477:ARG:HD2	1:a:477:ARG:HA	1.88	0.40
1:b:157:THR:HG22	1:b:159:THR:H	1.87	0.40
1:b:241:ARG:HH22	1:d:389:HIS:CD2	2.39	0.40
1:d:113:LEU:HD12	1:d:114:PRO:HD2	2.03	0.40
1:d:324:LYS:O	1:d:325:GLN:NE2	2.54	0.40
1:d:352:LEU:HD23	1:d:538:LEU:HD21	2.02	0.40
1:e:314:MET:HE1	1:i:545:ARG:NH1	2.36	0.40
1:f:61:THR:OG1	1:f:68:GLU:HB3	2.21	0.40
1:g:36:ARG:NH2	1:g:520:GLU:HG3	2.36	0.40
1:i:214:SER:OG	1:i:244:LEU:O	2.39	0.40
1:i:308:ASN:ND2	1:i:311:GLN:HG3	2.37	0.40
1:j:51:ILE:HD12	1:j:51:ILE:HA	1.94	0.40
1:j:504:ASP:OD2	1:j:506:ARG:N	2.43	0.40
1:A:159:THR:HG21	1:O:548:ARG:HD2	2.03	0.40
1:B:310:ASN:HA	1:L:548:ARG:NH1	2.37	0.40
1:C:143:MET:HA	1:C:143:MET:HE3	2.03	0.40
1:C:235:LEU:HD22	1:C:286:VAL:HG12	2.03	0.40
1:G:28:HIS:HB3	1:G:365:ARG:HH22	1.86	0.40
1:H:28:HIS:CD2	1:H:365:ARG:HH22	2.38	0.40
1:H:228:GLU:HG3	1:H:229:SER:O	2.21	0.40
1:I:228:GLU:H	1:I:228:GLU:CD	2.29	0.40
1:J:97:VAL:HG12	1:J:99:GLN:OE1	2.21	0.40
1:J:158:PHE:HB3	1:e:60:TRP:CD2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:477:ARG:HH12	1:K:446:THR:CA	2.34	0.40
1:J:547:GLN:HE22	1:R:153:LYS:HA	1.87	0.40
1:J:583:ARG:HD2	1:K:419:ASP:HA	2.03	0.40
1:K:324:LYS:HD2	1:K:324:LYS:C	2.47	0.40
1:M:480:GLN:HG3	1:N:445:TYR:CZ	2.55	0.40
1:M:593:VAL:HG21	1:Q:591:THR:HG22	2.03	0.40
1:N:97:VAL:HG12	1:N:144:LEU:O	2.21	0.40
1:O:88:GLU:N	1:O:88:GLU:OE2	2.54	0.40
1:P:411:GLU:OE1	1:P:570:VAL:HB	2.21	0.40
1:R:481:TYR:HE2	1:R:576:LEU:HD21	1.86	0.40
1:S:91:SER:HA	1:S:120:GLN:NE2	2.36	0.40
1:S:312:LEU:N	1:S:313:GLU:OE2	2.54	0.40
1:S:568:MET:SD	1:S:570:VAL:HG23	2.61	0.40
1:T:36:ARG:NH2	1:T:518:PRO:O	2.53	0.40
1:T:232:LEU:O	1:T:236:PHE:HD1	2.04	0.40
1:T:428:LYS:HE2	1:T:428:LYS:HA	2.02	0.40
1:U:40:VAL:HG13	1:U:534:ILE:HD13	2.02	0.40
1:U:351:ARG:HB2	1:U:353:GLU:OE2	2.20	0.40
1:V:48:GLN:HG3	1:V:326:GLY:HA2	2.03	0.40
1:V:345:ASP:C	1:V:349:TYR:HB3	2.45	0.40
1:W:375:ARG:O	1:W:379:LEU:HD23	2.21	0.40
1:Z:579:ALA:HA	1:Z:582:GLN:NE2	2.36	0.40
1:b:233:LYS:HA	1:b:236:PHE:HD2	1.84	0.40
1:b:290:LEU:HA	1:b:293:LEU:HD23	2.02	0.40
1:b:331:THR:O	1:b:332:LEU:HD23	2.21	0.40
1:d:428:LYS:NZ	1:d:580:ILE:HG13	2.35	0.40
1:e:373:LEU:HD23	1:e:373:LEU:HA	1.97	0.40
1:B:309:ILE:O	1:L:548:ARG:NH1	2.52	0.40
1:B:560:ARG:HH11	1:C:165:ARG:NH1	2.20	0.40
1:D:364:MET:HE2	1:D:364:MET:N	2.36	0.40
1:E:29:GLU:HA	1:E:29:GLU:OE2	2.22	0.40
1:G:84:TYR:HA	1:K:366:ASN:HD21	1.86	0.40
1:G:247:LYS:NZ	1:G:264:ARG:HH11	2.20	0.40
1:G:346:ASP:HA	1:G:349:TYR:O	2.20	0.40
1:J:273:ASP:OD2	1:J:277:LYS:HB2	2.20	0.40
1:J:545:ARG:HH12	1:J:552:GLU:CD	2.26	0.40
1:K:53:ARG:HH21	1:K:55:LEU:HD21	1.85	0.40
1:K:63:GLU:OE2	1:R:157:THR:HA	2.21	0.40
1:L:47:PHE:CE2	1:L:327:PHE:HD2	2.39	0.40
1:M:165:ARG:HH21	1:Q:560:ARG:HH12	1.69	0.40
1:N:585:ALA:HA	1:O:421:ASN:HD21	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:474:THR:OG1	1:P:475:ASP:N	2.54	0.40
1:Q:156:MET:C	1:Q:156:MET:SD	3.05	0.40
1:R:276:GLY:O	1:R:277:LYS:HB2	2.22	0.40
1:S:421:ASN:HB2	1:W:425:SER:H	1.86	0.40
1:S:433:GLN:NE2	1:S:487:ASP:OD2	2.54	0.40
1:S:546:ASN:C	1:S:546:ASN:HD22	2.28	0.40
1:V:190:ARG:HD3	1:X:560:ARG:HH22	1.86	0.40
1:V:193:TYR:O	1:V:211:PHE:HD1	2.03	0.40
1:V:338:VAL:HG22	1:V:552:GLU:HG2	2.02	0.40
1:V:372:LEU:HD21	1:V:512:VAL:HG11	2.04	0.40
1:W:365:ARG:HE	1:W:502:ILE:HD11	1.86	0.40
1:W:472:ILE:HD11	1:W:513:MET:HE3	2.03	0.40
1:W:586:LEU:O	1:W:588:VAL:HG23	2.20	0.40
1:X:432:ILE:HD12	1:X:432:ILE:HA	1.89	0.40
1:Y:469:HIS:ND1	1:Y:518:PRO:HG3	2.37	0.40
1:Z:422:ASN:ND2	1:Z:431:ASP:OD2	2.54	0.40
1:a:541:PHE:CE2	1:a:543:MET:HB2	2.56	0.40
1:b:43:ASP:OD1	1:b:43:ASP:C	2.64	0.40
1:c:331:THR:HA	1:c:558:ARG:CB	2.51	0.40
1:e:132:PHE:HE2	1:e:297:GLY:HA3	1.86	0.40
1:e:511:ILE:HG22	1:e:513:MET:SD	2.61	0.40
1:g:108:ILE:HD13	1:g:129:PHE:HB2	2.03	0.40
1:g:309:ILE:O	1:g:311:GLN:HG3	2.22	0.40
1:h:592:GLN:HG3	1:i:593:VAL:O	2.21	0.40
1:B:365:ARG:HH12	1:C:81:LEU:HA	1.87	0.40
1:B:417:LEU:HB3	1:B:575:ASN:ND2	2.35	0.40
1:C:65:LEU:H	1:C:65:LEU:HD23	1.86	0.40
1:C:80:GLY:HA2	1:C:83:ASP:OD1	2.21	0.40
1:C:166:ILE:HG23	1:C:304:ALA:HB2	2.04	0.40
1:E:72:ILE:HB	1:E:74:LYS:NZ	2.37	0.40
1:E:531:LEU:HD13	1:E:561:TYR:CD1	2.57	0.40
1:G:165:ARG:NH2	1:K:330:PRO:HD3	2.36	0.40
1:G:243:GLU:HB2	1:G:270:ARG:HG2	2.03	0.40
1:G:438:SER:HA	1:G:489:ARG:CZ	2.52	0.40
1:G:588:VAL:HB	1:H:588:VAL:HG13	2.03	0.40
1:H:443:MET:HA	1:H:446:THR:HG22	2.04	0.40
1:L:274:LYS:H	1:L:274:LYS:HG2	1.72	0.40
1:N:414:ILE:HG22	1:N:572:ASN:O	2.21	0.40
1:O:177:LYS:HB2	1:O:293:LEU:HD23	2.03	0.40
1:P:336:VAL:HG12	1:P:554:ARG:CD	2.52	0.40
1:Q:336:VAL:CG1	1:Q:554:ARG:HD3	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:539:VAL:CG1	1:Q:554:ARG:HB2	2.52	0.40
1:R:149:SER:O	1:R:153:LYS:HG2	2.22	0.40
1:S:361:ILE:HG13	1:S:362:GLN:N	2.37	0.40
1:S:517:LEU:HA	1:S:518:PRO:HD3	1.82	0.40
1:T:218:GLY:HA2	1:T:241:ARG:CZ	2.51	0.40
1:V:91:SER:HA	1:V:120:GLN:HE21	1.85	0.40
1:W:60:TRP:HD1	1:W:61:THR:H	1.68	0.40
1:X:146:GLN:HE21	1:c:65:LEU:HD13	1.86	0.40
1:X:213:THR:OG1	1:X:214:SER:N	2.55	0.40
1:Y:316:LEU:HA	1:Y:316:LEU:HD23	1.91	0.40
1:Y:531:LEU:HD13	1:Y:561:TYR:CD1	2.56	0.40
1:Z:313:GLU:OE1	1:Z:313:GLU:N	2.53	0.40
1:Z:330:PRO:HB3	1:a:165:ARG:HD2	2.03	0.40
1:a:348:THR:HA	1:d:320:SER:HB3	2.02	0.40
1:b:205:ARG:HB3	1:b:254:VAL:HG22	2.03	0.40
1:b:580:ILE:HD12	1:c:442:GLU:HG3	2.03	0.40
1:e:98:ILE:HB	1:e:126:ASP:HB2	2.04	0.40
1:e:147:THR:OG1	1:e:148:PRO:HD2	2.21	0.40
1:e:359:TYR:CE2	1:e:557:PRO:HB3	2.56	0.40
1:e:363:GLN:HG3	1:e:559:TYR:CE2	2.56	0.40
1:f:61:THR:HB	1:f:69:LYS:HB2	2.03	0.40
1:g:560:ARG:HD2	1:g:561:TYR:N	2.36	0.40
1:h:331:THR:HG22	1:h:558:ARG:CD	2.51	0.40
1:i:158:PHE:CD2	1:i:159:THR:HG23	2.56	0.40
1:j:453:TYR:O	1:j:457:LEU:HD23	2.22	0.40
1:A:271:VAL:HG11	1:A:286:VAL:HG11	2.03	0.40
1:A:422:ASN:HB3	1:A:428:LYS:HE2	2.04	0.40
1:A:450:LEU:HD23	1:A:450:LEU:HA	1.87	0.40
1:C:352:LEU:HD12	1:C:352:LEU:HA	1.82	0.40
1:C:390:PRO:O	1:C:393:SER:OG	2.23	0.40
1:C:486:GLY:HA2	1:D:486:GLY:O	2.21	0.40
1:D:247:LYS:HB2	1:D:265:ALA:HB3	2.03	0.40
1:D:363:GLN:C	1:D:364:MET:HE2	2.47	0.40
1:D:439:LYS:HE2	1:D:439:LYS:HB2	1.81	0.40
1:E:29:GLU:O	1:E:33:LEU:HD23	2.21	0.40
1:E:55:LEU:HD23	1:E:74:LYS:HB3	2.04	0.40
1:E:200:ARG:HE	1:T:324:LYS:NZ	2.20	0.40
1:E:212:HIS:CE1	1:E:247:LYS:HG2	2.57	0.40
1:H:547:GLN:C	1:H:548:ARG:HD2	2.47	0.40
1:H:584:THR:HG23	1:H:584:THR:O	2.21	0.40
1:J:443:MET:HE3	1:J:569:LEU:HD23	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:186:LEU:HD12	1:L:215:LEU:HD11	2.02	0.40
1:N:365:ARG:HH22	1:O:81:LEU:HD13	1.86	0.40
1:P:331:THR:C	1:P:332:LEU:HD22	2.46	0.40
1:P:504:ASP:OD1	1:P:506:ARG:HB2	2.22	0.40
1:R:252:MET:HE3	1:R:253:ASN:N	2.35	0.40
1:R:478:LEU:O	1:R:481:TYR:N	2.29	0.40
1:T:51:ILE:HD12	1:T:51:ILE:HA	1.91	0.40
1:T:55:LEU:HD12	1:T:74:LYS:HB3	2.03	0.40
1:U:30:PHE:CE1	1:U:502:ILE:HD11	2.56	0.40
1:U:33:LEU:HA	1:U:33:LEU:HD12	1.83	0.40
1:U:35:TYR:HD1	1:U:529:GLY:HA3	1.87	0.40
1:U:115:ALA:HB1	1:U:126:ASP:HB3	2.04	0.40
1:U:429:GLN:HE22	1:X:438:SER:HA	1.86	0.40
1:V:156:MET:HE3	1:V:156:MET:HB3	1.88	0.40
1:V:342:MET:HE2	1:V:342:MET:HB3	1.97	0.40
1:X:202:TYR:CG	1:X:203:ASN:N	2.90	0.40
1:X:531:LEU:HG	1:X:533:PHE:HB2	2.02	0.40
1:Y:89:THR:HG21	1:Y:316:LEU:HD21	2.04	0.40
1:Y:150:ARG:HA	1:Y:153:LYS:HB3	2.03	0.40
1:a:85:THR:O	1:a:88:GLU:HG3	2.21	0.40
1:a:531:LEU:HD12	1:a:560:ARG:O	2.22	0.40
1:c:308:ASN:HD21	1:c:312:LEU:N	2.20	0.40
1:d:169:LYS:HE2	1:d:169:LYS:HB3	1.71	0.40
1:d:453:TYR:CE1	1:d:457:LEU:HD11	2.56	0.40
1:f:139:PHE:HE2	1:f:141:LEU:HD13	1.87	0.40
1:g:86:THR:OG1	1:g:87:LEU:HD12	2.22	0.40
1:h:113:LEU:HD21	1:h:183:LEU:HD22	2.02	0.40
1:h:281:LEU:HD12	1:h:281:LEU:H	1.85	0.40
1:i:36:ARG:N	1:i:530:VAL:HA	2.37	0.40
1:i:438:SER:HB2	1:i:489:ARG:HH12	1.85	0.40
1:i:469:HIS:CD2	1:i:518:PRO:HG3	2.57	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	A	568/570 (100%)	543 (96%)	23 (4%)	2 (0%)	30	65
1	B	568/570 (100%)	541 (95%)	26 (5%)	1 (0%)	43	76
1	C	568/570 (100%)	538 (95%)	30 (5%)	0	100	100
1	D	568/570 (100%)	537 (94%)	29 (5%)	2 (0%)	30	65
1	E	568/570 (100%)	541 (95%)	25 (4%)	2 (0%)	30	65
1	G	568/570 (100%)	525 (92%)	40 (7%)	3 (0%)	24	61
1	H	568/570 (100%)	532 (94%)	35 (6%)	1 (0%)	43	76
1	I	568/570 (100%)	526 (93%)	40 (7%)	2 (0%)	30	65
1	J	568/570 (100%)	535 (94%)	32 (6%)	1 (0%)	43	76
1	K	568/570 (100%)	532 (94%)	36 (6%)	0	100	100
1	L	568/570 (100%)	530 (93%)	36 (6%)	2 (0%)	30	65
1	M	568/570 (100%)	525 (92%)	42 (7%)	1 (0%)	43	76
1	N	568/570 (100%)	536 (94%)	32 (6%)	0	100	100
1	O	568/570 (100%)	524 (92%)	44 (8%)	0	100	100
1	P	568/570 (100%)	526 (93%)	42 (7%)	0	100	100
1	Q	568/570 (100%)	526 (93%)	40 (7%)	2 (0%)	30	65
1	R	568/570 (100%)	524 (92%)	41 (7%)	3 (0%)	24	61
1	S	568/570 (100%)	526 (93%)	42 (7%)	0	100	100
1	T	568/570 (100%)	521 (92%)	45 (8%)	2 (0%)	30	65
1	U	568/570 (100%)	530 (93%)	36 (6%)	2 (0%)	30	65
1	V	568/570 (100%)	528 (93%)	40 (7%)	0	100	100
1	W	568/570 (100%)	524 (92%)	43 (8%)	1 (0%)	43	76
1	X	568/570 (100%)	531 (94%)	37 (6%)	0	100	100
1	Y	568/570 (100%)	524 (92%)	40 (7%)	4 (1%)	18	55
1	Z	568/570 (100%)	531 (94%)	37 (6%)	0	100	100
1	a	568/570 (100%)	529 (93%)	38 (7%)	1 (0%)	43	76
1	b	568/570 (100%)	530 (93%)	36 (6%)	2 (0%)	30	65
1	c	568/570 (100%)	527 (93%)	38 (7%)	3 (0%)	24	61
1	d	568/570 (100%)	519 (91%)	48 (8%)	1 (0%)	43	76
1	e	568/570 (100%)	538 (95%)	29 (5%)	1 (0%)	43	76

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	f	568/570 (100%)	528 (93%)	40 (7%)	0	100	100
1	g	568/570 (100%)	532 (94%)	34 (6%)	2 (0%)	30	65
1	h	568/570 (100%)	530 (93%)	36 (6%)	2 (0%)	30	65
1	i	568/570 (100%)	538 (95%)	30 (5%)	0	100	100
1	j	568/570 (100%)	522 (92%)	44 (8%)	2 (0%)	30	65
All	All	19880/19950 (100%)	18549 (93%)	1286 (6%)	45 (0%)	44	76

All (45) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	588	VAL
1	R	202	TYR
1	R	596	ALA
1	W	311	GLN
1	e	477	ARG
1	A	146	GLN
1	D	426	ALA
1	U	70	GLN
1	a	68	GLU
1	c	311	GLN
1	E	311	GLN
1	J	202	TYR
1	T	202	TYR
1	Y	88	GLU
1	Y	311	GLN
1	g	202	TYR
1	j	202	TYR
1	G	202	TYR
1	G	311	GLN
1	I	311	GLN
1	I	489	ARG
1	L	311	GLN
1	U	137	GLU
1	Y	202	TYR
1	d	311	GLN
1	g	394	ASN
1	h	489	ARG
1	j	311	GLN
1	D	392	GLU
1	Q	311	GLN

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Mol	Chain	Res	Type
1	R	311	GLN
1	b	70	GLN
1	h	70	GLN
1	E	352	LEU
1	G	228	GLU
1	H	311	GLN
1	L	70	GLN
1	M	311	GLN
1	Q	587	ASP
1	T	311	GLN
1	b	487	ASP
1	c	68	GLU
1	c	70	GLN
1	B	349	TYR
1	Y	595	PRO

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	B	492/492 (100%)	489 (99%)	3 (1%)	78	80
1	C	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	D	492/492 (100%)	490 (100%)	2 (0%)	84	83
1	E	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	G	492/492 (100%)	492 (100%)	0	100	100
1	H	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	I	492/492 (100%)	490 (100%)	2 (0%)	84	83
1	J	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	K	492/492 (100%)	492 (100%)	0	100	100
1	L	492/492 (100%)	489 (99%)	3 (1%)	78	80
1	M	492/492 (100%)	491 (100%)	1 (0%)	87	87

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	N	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	O	492/492 (100%)	490 (100%)	2 (0%)	84	83
1	P	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	Q	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	R	492/492 (100%)	492 (100%)	0	100	100
1	S	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	T	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	U	492/492 (100%)	492 (100%)	0	100	100
1	V	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	W	492/492 (100%)	490 (100%)	2 (0%)	84	83
1	X	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	Y	492/492 (100%)	492 (100%)	0	100	100
1	Z	492/492 (100%)	492 (100%)	0	100	100
1	a	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	b	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	c	492/492 (100%)	492 (100%)	0	100	100
1	d	492/492 (100%)	490 (100%)	2 (0%)	84	83
1	e	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	f	492/492 (100%)	488 (99%)	4 (1%)	73	77
1	g	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	h	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	i	492/492 (100%)	492 (100%)	0	100	100
1	j	492/492 (100%)	489 (99%)	3 (1%)	78	80
All	All	17220/17220 (100%)	17179 (100%)	41 (0%)	85	87

All (41) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	108	ILE
1	B	389	HIS
1	B	567	ILE
1	B	571	ILE
1	C	258	ASN
1	D	493	ILE

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Mol	Chain	Res	Type
1	D	534	ILE
1	E	77	ILE
1	H	432	ILE
1	I	337	ILE
1	I	544	ILE
1	J	429	GLN
1	L	337	ILE
1	L	534	ILE
1	L	547	GLN
1	M	571	ILE
1	N	580	ILE
1	O	361	ILE
1	O	502	ILE
1	P	48	GLN
1	Q	574	ILE
1	S	108	ILE
1	T	549	ILE
1	V	502	ILE
1	W	337	ILE
1	W	361	ILE
1	X	429	GLN
1	a	571	ILE
1	b	516	ILE
1	d	421	ASN
1	d	580	ILE
1	e	469	HIS
1	f	90	ASN
1	f	208	GLN
1	f	484	ILE
1	f	574	ILE
1	g	524	HIS
1	h	108	ILE
1	j	337	ILE
1	j	549	ILE
1	j	567	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (197) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	106	GLN
1	A	325	GLN
1	A	483	GLN

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Mol	Chain	Res	Type
1	A	592	GLN
1	B	79	GLN
1	B	103	ASN
1	B	140	ASN
1	B	308	ASN
1	B	367	ASN
1	B	575	ASN
1	C	103	ASN
1	C	308	ASN
1	C	394	ASN
1	C	563	ASN
1	C	589	ASN
1	D	99	GLN
1	D	140	ASN
1	D	366	ASN
1	D	410	ASN
1	D	429	GLN
1	D	469	HIS
1	E	70	GLN
1	E	140	ASN
1	E	433	GLN
1	E	449	GLN
1	E	480	GLN
1	G	140	ASN
1	G	146	GLN
1	G	192	GLN
1	G	310	ASN
1	G	367	ASN
1	G	441	ASN
1	H	140	ASN
1	H	192	GLN
1	H	212	HIS
1	H	311	GLN
1	H	433	GLN
1	H	480	GLN
1	H	483	GLN
1	H	485	ASN
1	H	563	ASN
1	I	48	GLN
1	I	170	GLN
1	I	367	ASN
1	I	394	ASN

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Mol	Chain	Res	Type
1	I	480	GLN
1	I	542	ASN
1	I	592	GLN
1	J	70	GLN
1	J	362	GLN
1	J	429	GLN
1	J	441	ASN
1	K	28	HIS
1	K	208	GLN
1	K	527	GLN
1	K	592	GLN
1	L	258	ASN
1	L	311	GLN
1	L	483	GLN
1	L	485	ASN
1	L	546	ASN
1	L	547	GLN
1	M	44	GLN
1	M	103	ASN
1	M	135	ASN
1	M	308	ASN
1	M	394	ASN
1	M	429	GLN
1	M	480	GLN
1	N	106	GLN
1	N	120	GLN
1	N	310	ASN
1	N	323	GLN
1	N	363	GLN
1	N	402	GLN
1	N	429	GLN
1	N	441	ASN
1	N	572	ASN
1	N	589	ASN
1	O	70	GLN
1	O	311	GLN
1	O	325	GLN
1	O	402	GLN
1	O	483	GLN
1	P	28	HIS
1	P	106	GLN
1	P	116	GLN

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Mol	Chain	Res	Type
1	P	192	GLN
1	P	212	HIS
1	P	323	GLN
1	P	362	GLN
1	P	363	GLN
1	P	394	ASN
1	P	402	GLN
1	Q	480	GLN
1	Q	485	ASN
1	Q	589	ASN
1	R	48	GLN
1	R	116	GLN
1	R	120	GLN
1	R	310	ASN
1	R	394	ASN
1	R	410	ASN
1	R	563	ASN
1	R	572	ASN
1	S	120	GLN
1	S	485	ASN
1	T	28	HIS
1	T	99	GLN
1	T	116	GLN
1	T	140	ASN
1	T	192	GLN
1	T	325	GLN
1	T	389	HIS
1	T	589	ASN
1	U	70	GLN
1	U	99	GLN
1	U	140	ASN
1	U	258	ASN
1	U	367	ASN
1	U	542	ASN
1	V	54	ASN
1	V	323	GLN
1	V	367	ASN
1	V	422	ASN
1	V	483	GLN
1	W	99	GLN
1	W	116	GLN
1	W	189	ASN

Continued on next page...

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Mol	Chain	Res	Type
1	W	258	ASN
1	W	363	GLN
1	W	469	HIS
1	W	563	ASN
1	W	589	ASN
1	X	212	HIS
1	X	528	HIS
1	X	563	ASN
1	Y	48	GLN
1	Y	389	HIS
1	Y	480	GLN
1	Y	483	GLN
1	Z	70	GLN
1	Z	253	ASN
1	Z	418	ASN
1	Z	527	GLN
1	a	170	GLN
1	a	311	GLN
1	a	363	GLN
1	b	99	GLN
1	b	120	GLN
1	b	258	ASN
1	b	433	GLN
1	b	483	GLN
1	b	592	GLN
1	c	48	GLN
1	c	189	ASN
1	c	325	GLN
1	c	527	GLN
1	c	528	HIS
1	d	140	ASN
1	d	258	ASN
1	d	429	GLN
1	d	449	GLN
1	d	527	GLN
1	e	70	GLN
1	e	140	ASN
1	e	170	GLN
1	e	208	GLN
1	e	212	HIS
1	e	256	ASN
1	e	433	GLN

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Mol	Chain	Res	Type
1	e	485	ASN
1	f	99	GLN
1	f	367	ASN
1	f	433	GLN
1	f	542	ASN
1	g	258	ASN
1	g	422	ASN
1	g	527	GLN
1	g	528	HIS
1	g	563	ASN
1	g	589	ASN
1	g	592	GLN
1	h	70	GLN
1	h	323	GLN
1	h	402	GLN
1	h	527	GLN
1	i	99	GLN
1	i	192	GLN
1	i	258	ASN
1	i	311	GLN
1	i	469	HIS
1	j	103	ASN
1	j	362	GLN
1	j	374	ASN
1	j	389	HIS
1	j	563	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

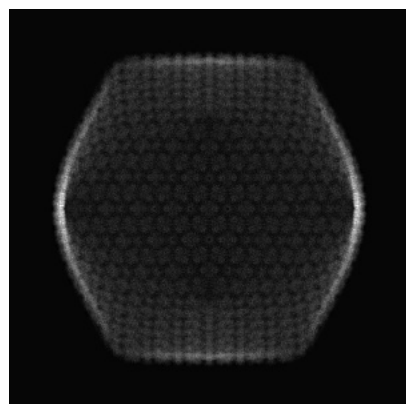
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-13862. These allow visual inspection of the internal detail of the map and identification of artifacts.

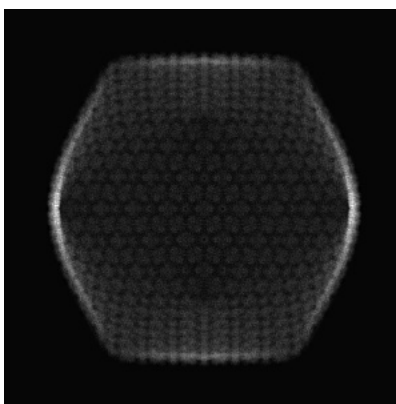
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

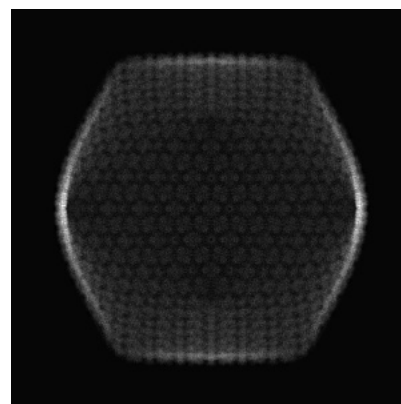
6.1.1 Primary map



X

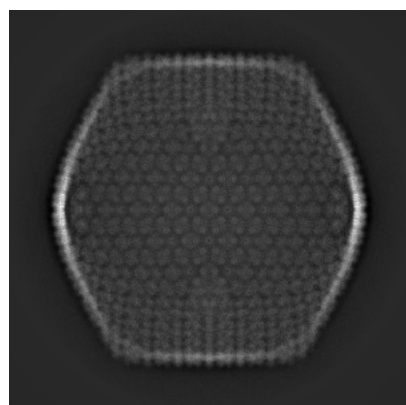


Y

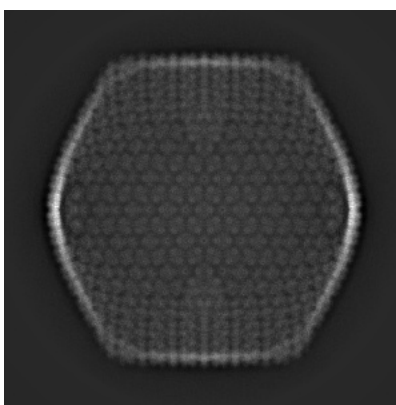


Z

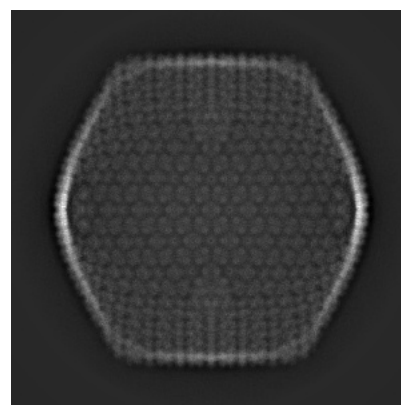
6.1.2 Raw map



X



Y

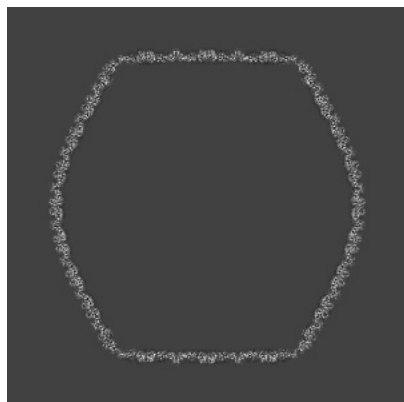


Z

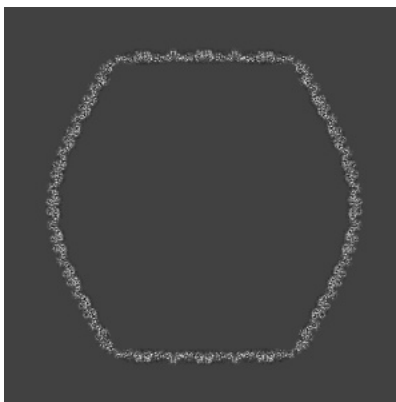
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

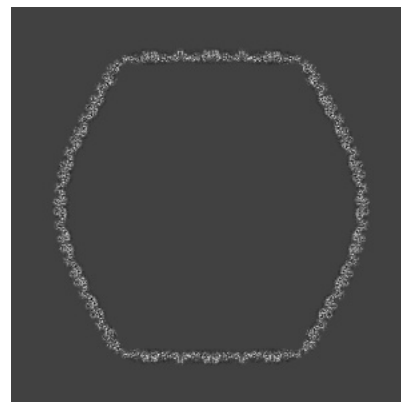
6.2.1 Primary map



X Index: 400

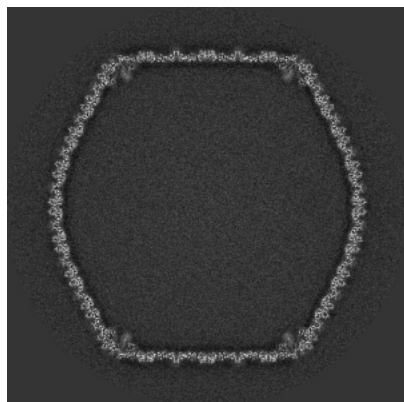


Y Index: 400

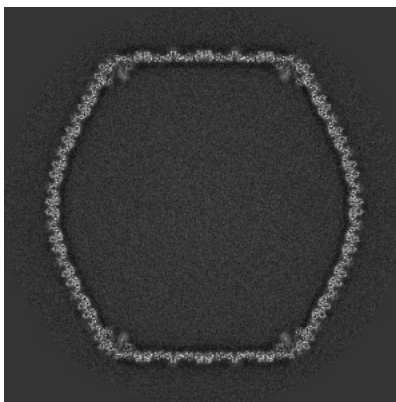


Z Index: 400

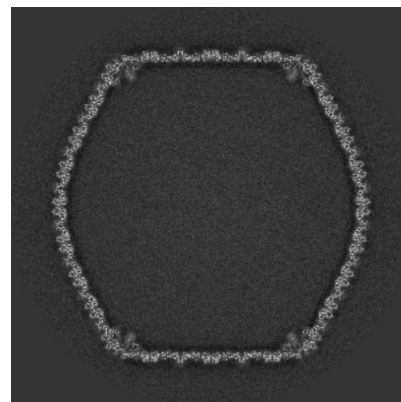
6.2.2 Raw map



X Index: 400



Y Index: 400

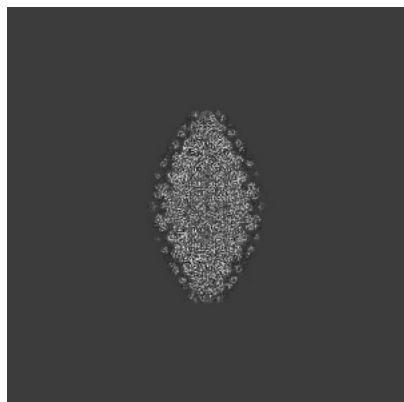


Z Index: 400

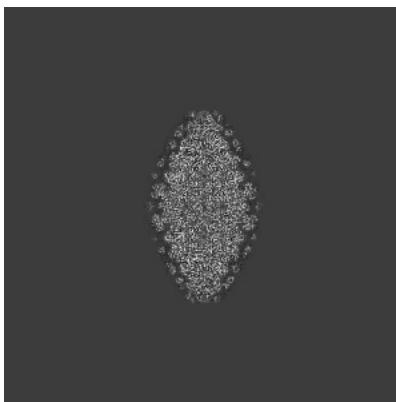
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

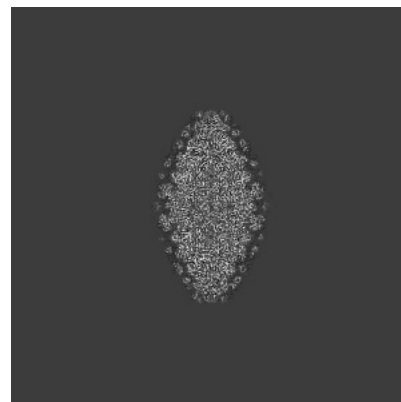
6.3.1 Primary map



X Index: 693

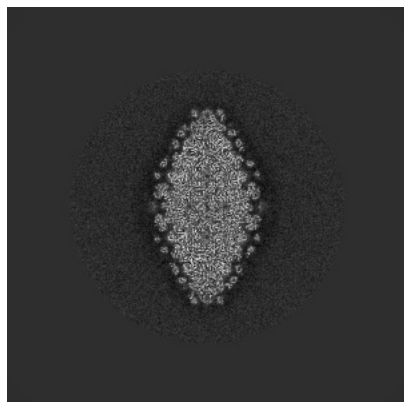


Y Index: 693

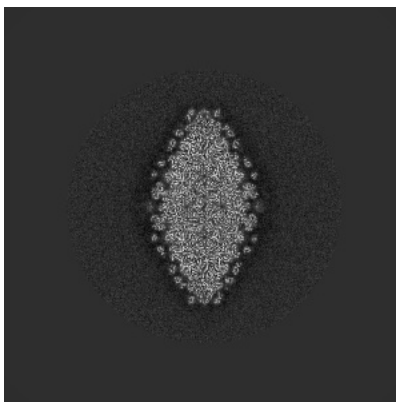


Z Index: 693

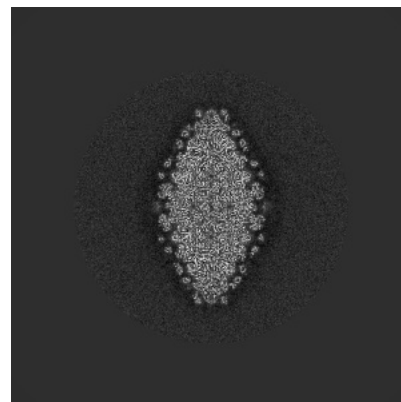
6.3.2 Raw map



X Index: 693



Y Index: 107

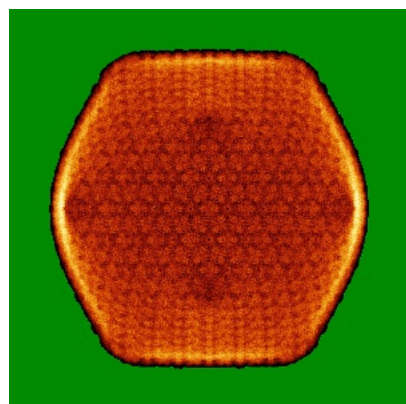


Z Index: 693

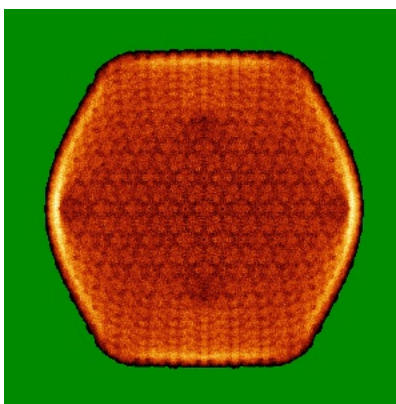
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

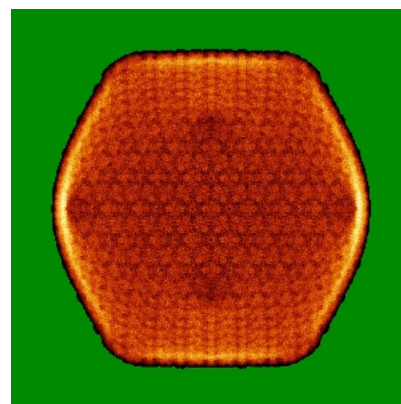
6.4.1 Primary map



X

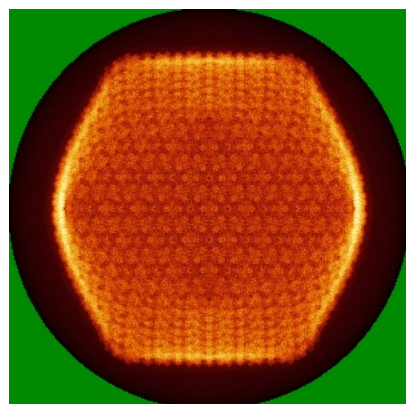


Y

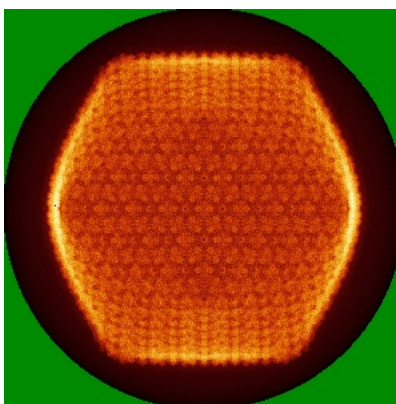


Z

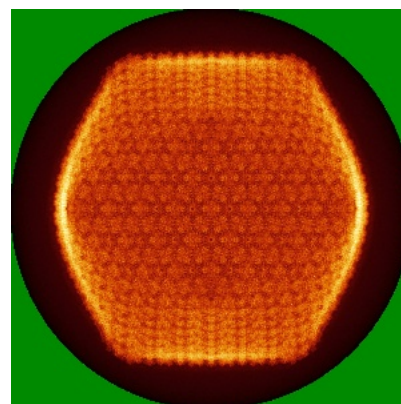
6.4.2 Raw map



X



Y

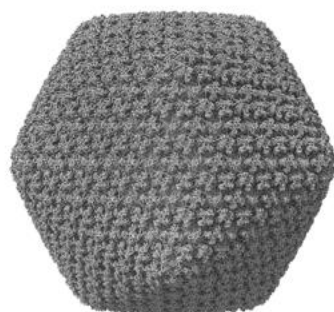


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



X



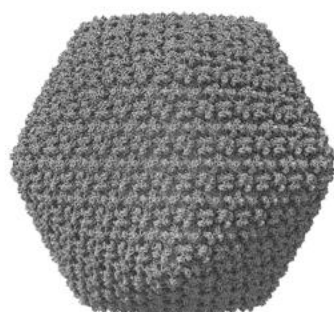
Y



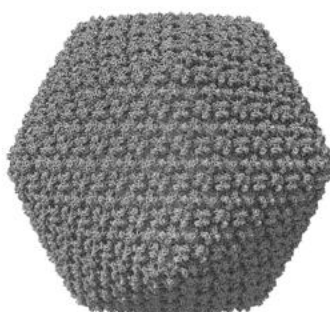
Z

The images above show the 3D surface view of the map at the recommended contour level 0.006. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

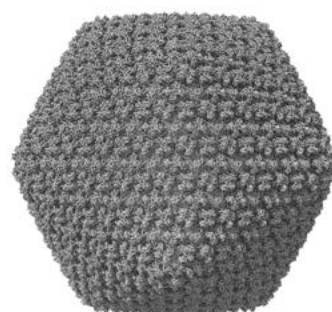
6.5.2 Raw map



X



Y



Z

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

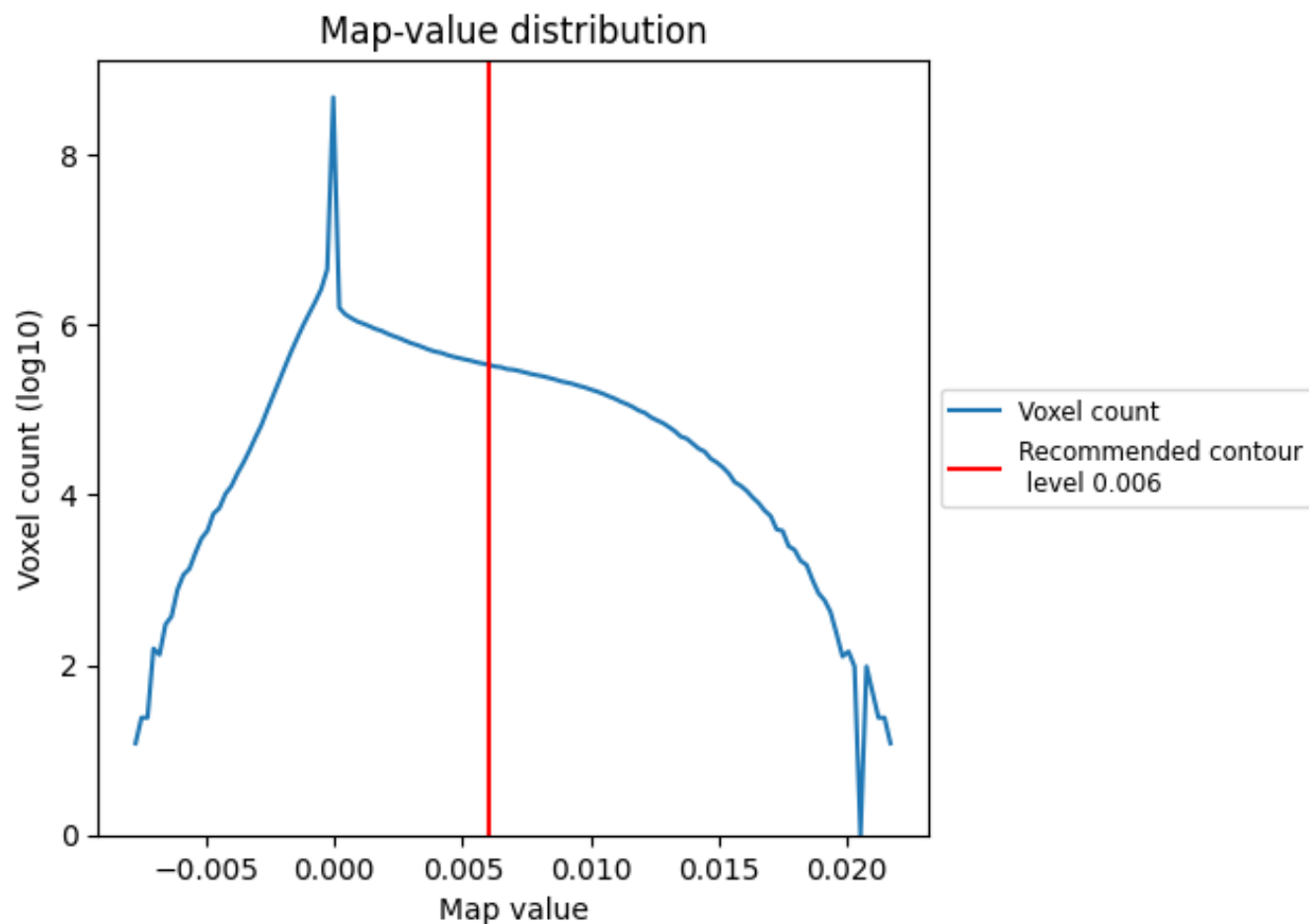
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

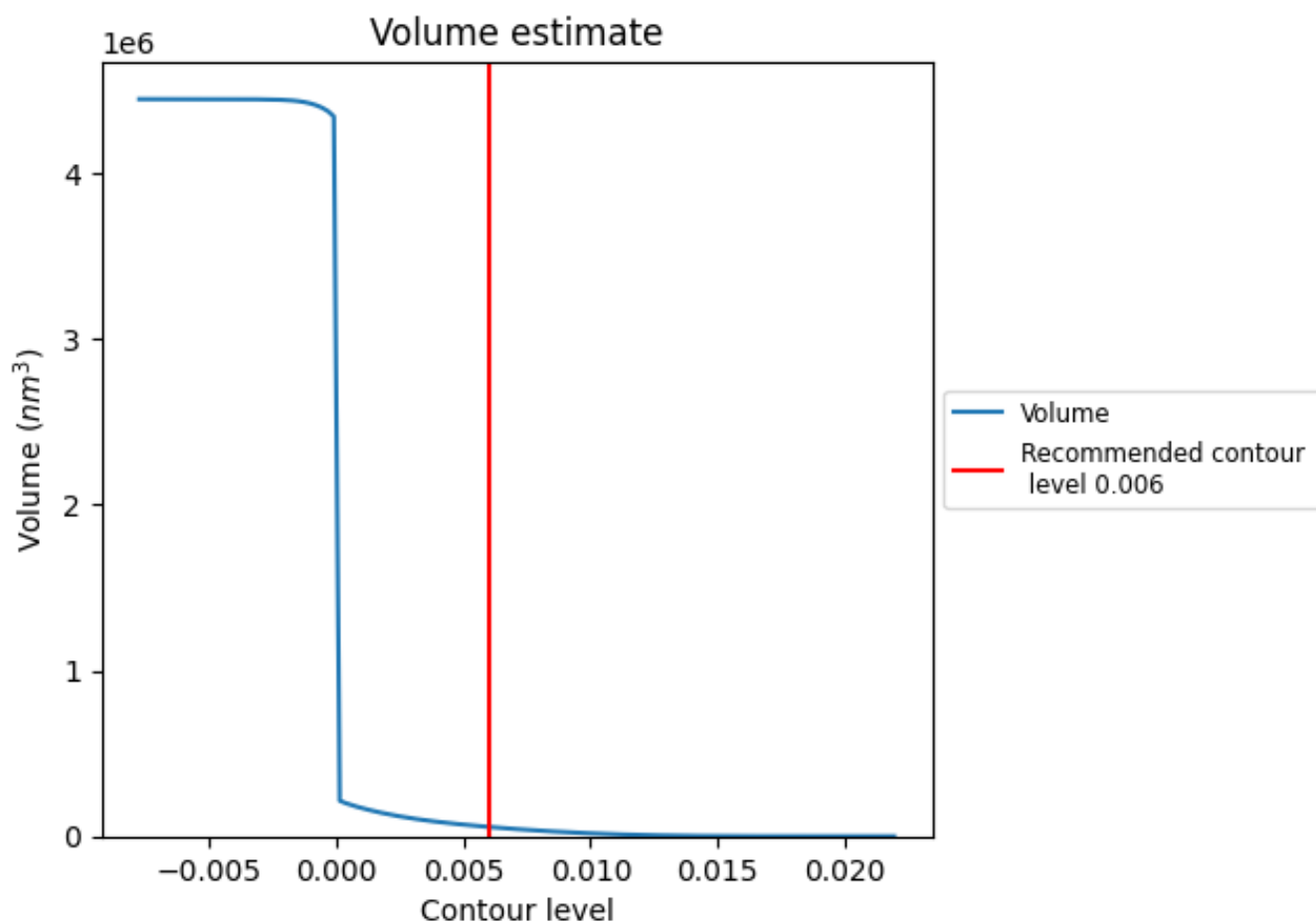
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

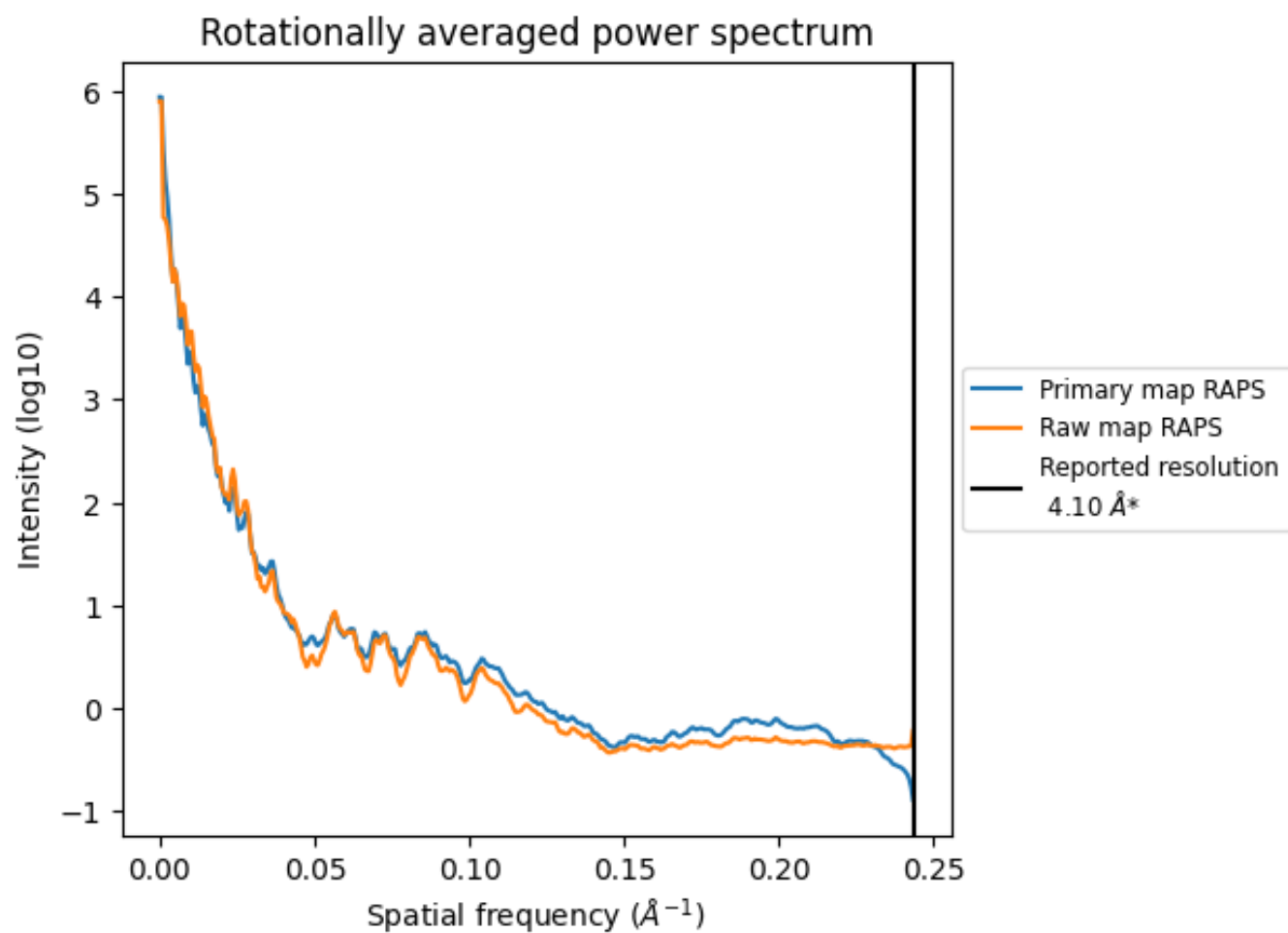
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 56255 nm^3 ; this corresponds to an approximate mass of 50817 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

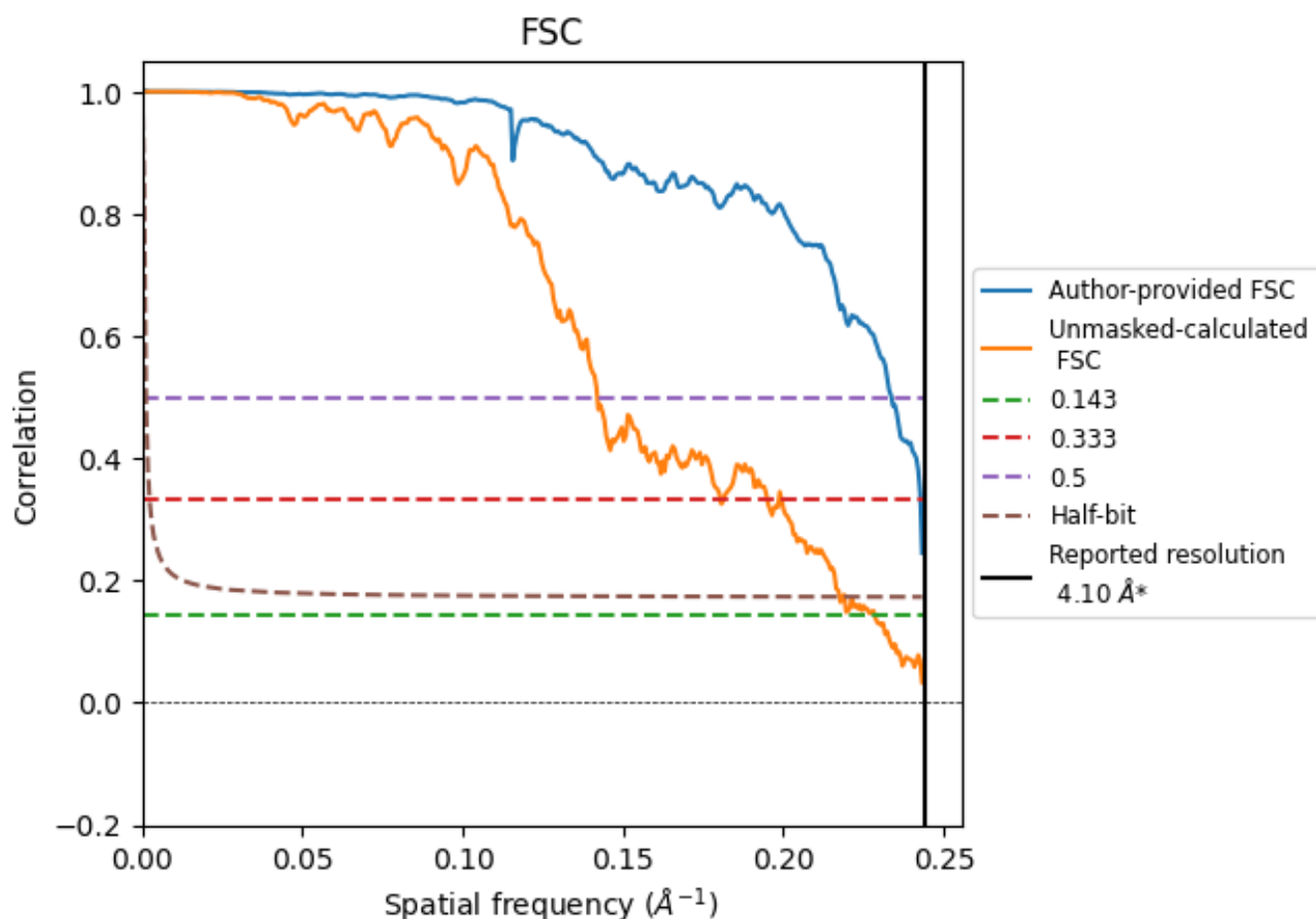


*Reported resolution corresponds to spatial frequency of 0.244 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.244 Å⁻¹

8.2 Resolution estimates [i](#)

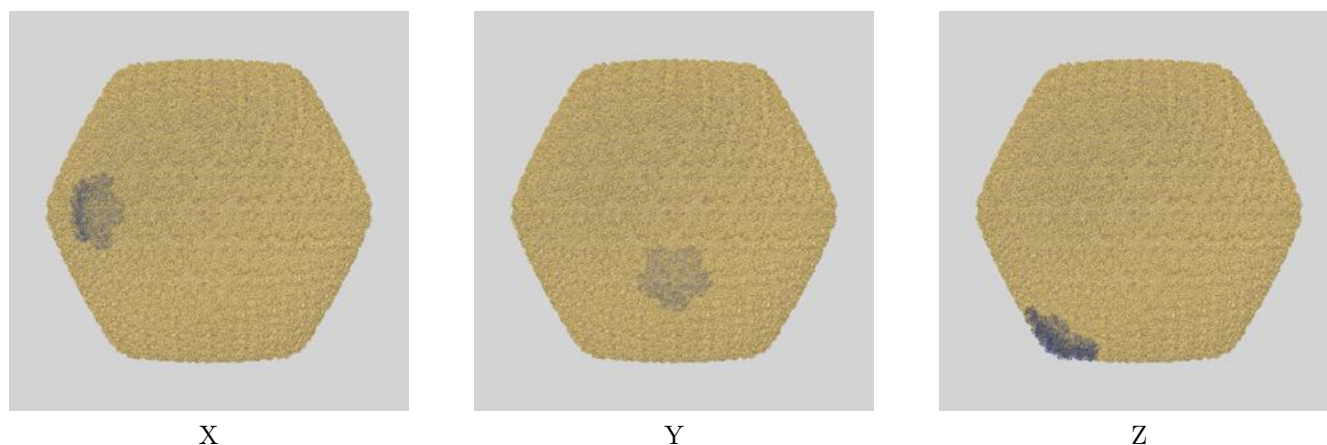
Resolution estimate (Å)	Estimation criterion (FSC cut-off)			
	0.143	0.5	Half-bit	0.333
Reported by author	-	-	-	4.10
Author-provided FSC curve	-	4.28	-	4.12
Unmasked-calculated*	4.38	7.04	4.60	5.54

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.33 CUT-OFF 5.54 differs from the reported value 4.1 by more than 10 %

9 Map-model fit [i](#)

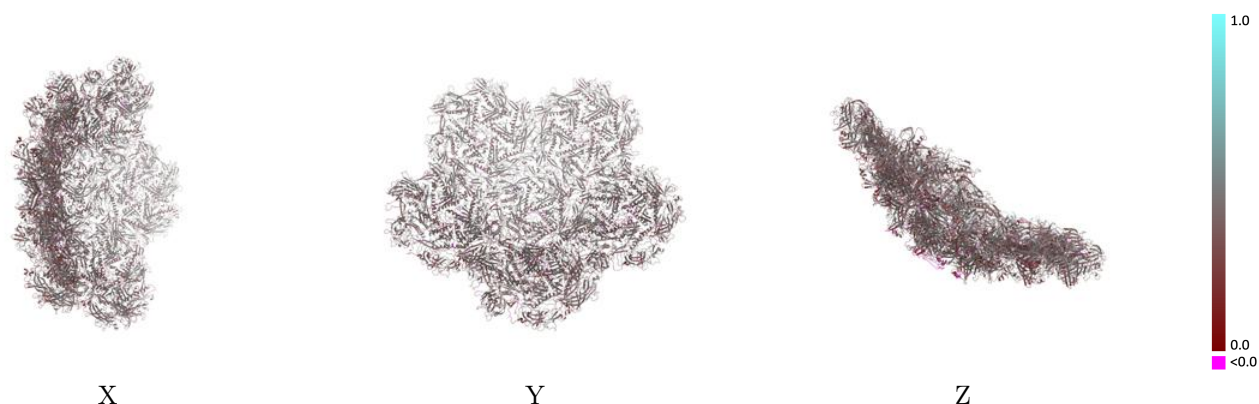
This section contains information regarding the fit between EMDB map EMD-13862 and PDB model 8BFP. Per-residue inclusion information can be found in section [3](#) on page [7](#).

9.1 Map-model overlay [i](#)



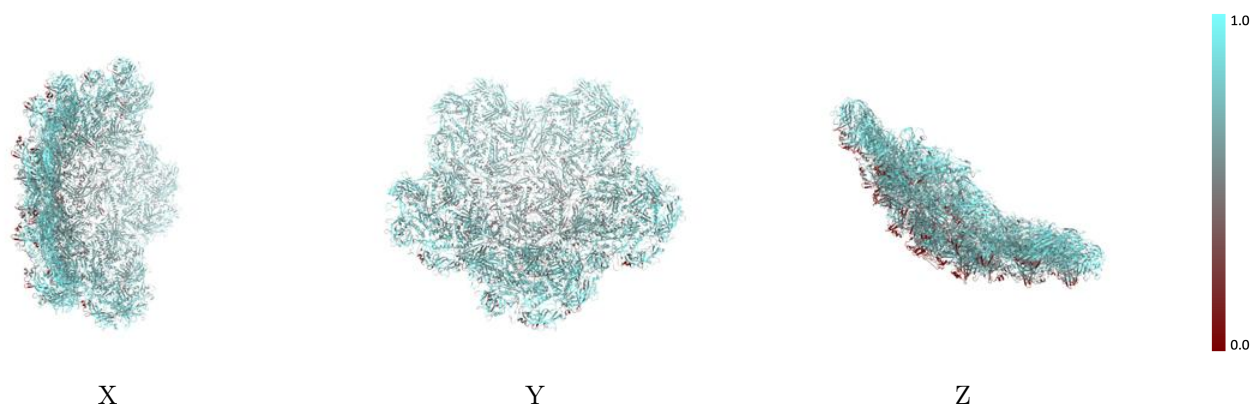
The images above show the 3D surface view of the map at the recommended contour level 0.006 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



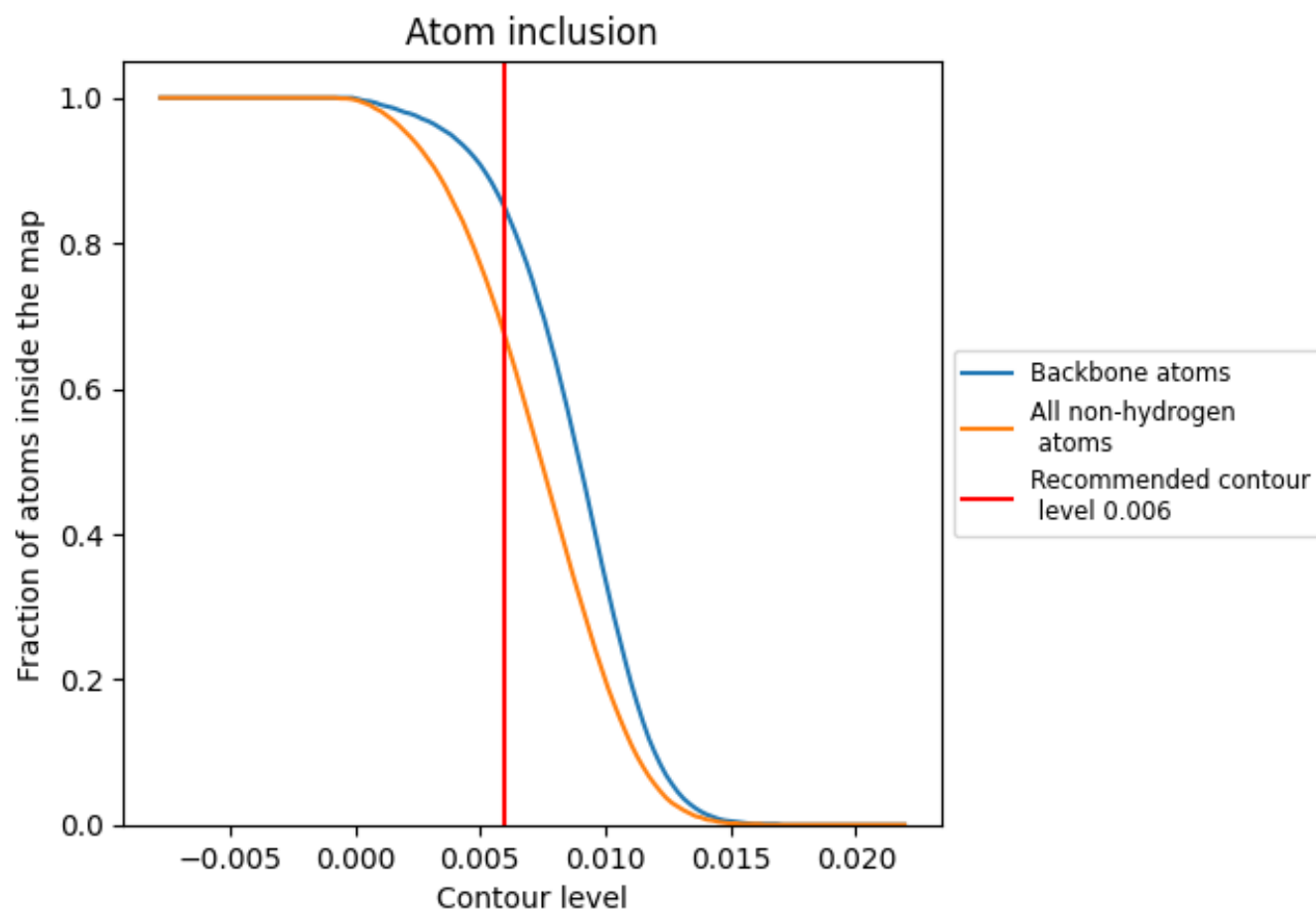
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.006).

9.4 Atom inclusion [i](#)



At the recommended contour level, 85% of all backbone atoms, 67% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.006) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6720	 0.3680
A	 0.5470	 0.3400
B	 0.5750	 0.3530
C	 0.5710	 0.3520
D	 0.5580	 0.3440
E	 0.5630	 0.3480
G	 0.6980	 0.3720
H	 0.6920	 0.3750
I	 0.7170	 0.3770
J	 0.6580	 0.3690
K	 0.6490	 0.3680
L	 0.6880	 0.3700
M	 0.7160	 0.3710
N	 0.7130	 0.3720
O	 0.6870	 0.3740
P	 0.6570	 0.3690
Q	 0.6960	 0.3700
R	 0.6630	 0.3630
S	 0.6780	 0.3660
T	 0.6540	 0.3620
U	 0.6670	 0.3710
V	 0.7040	 0.3760
W	 0.7080	 0.3750
X	 0.6920	 0.3780
Y	 0.6670	 0.3650
Z	 0.6670	 0.3610
a	 0.7210	 0.3740
b	 0.7290	 0.3810
c	 0.6860	 0.3720
d	 0.7150	 0.3770
e	 0.6620	 0.3660
f	 0.7040	 0.3730
g	 0.7120	 0.3740
h	 0.7090	 0.3790
i	 0.6650	 0.3630
j	 0.7340	 0.3790

