



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 11:18 PM UTC

PDB ID : 9GO6 / pdb_00009go6
EMDB ID : EMD-51493
Title : Salmonella hook-filament junction complex
Authors : Qin, K.; Eikenkel, R.; Erhardt, E.; Bergeron, J.R.
Deposited on : 2024-09-04
Resolution : 2.90 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:

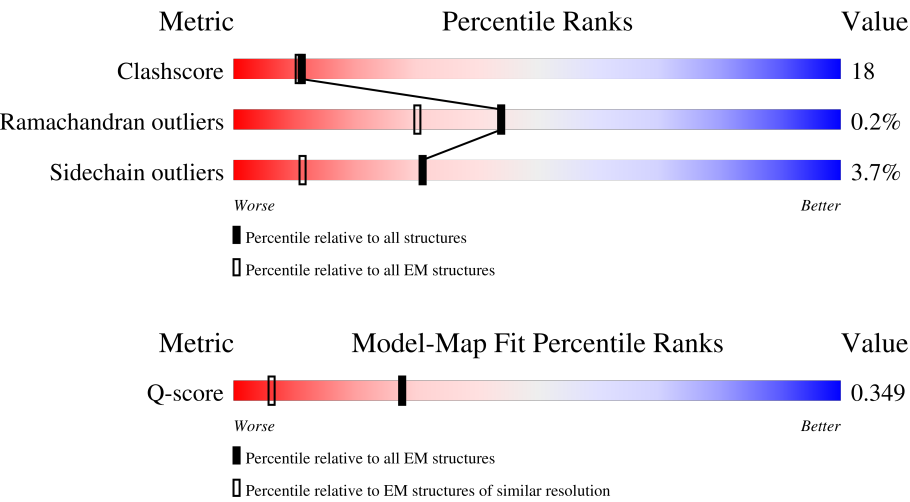
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance i

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

The reported resolution of this entry is 2.90 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	13054 (2.40 - 3.40)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	1	403	
1	2	403	
1	3	403	
1	4	403	

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Mol	Chain	Length	Quality of chain
1	5	403	
1	6	403	
1	7	403	
1	8	403	
1	9	403	
1	w	403	
1	x	403	
1	y	403	
1	z	403	
2	A	553	
2	B	553	
2	C	553	
2	D	553	
2	E	553	
2	F	553	
2	G	553	
2	H	553	
2	I	553	
2	J	553	
2	K	553	
3	L	317	
3	M	317	
3	N	317	
3	O	317	
3	P	317	

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Mol	Chain	Length	Quality of chain
3	Q	317	
3	R	317	
3	S	317	
3	T	317	
3	U	317	
3	V	317	
4	a	495	
4	b	495	
4	c	495	
4	d	495	
4	e	495	
4	f	495	
4	g	495	
4	h	495	
4	i	495	
4	j	495	
4	k	495	
4	l	495	
4	m	495	
4	n	495	
4	o	495	

2 Entry composition [i](#)

There are 4 unique types of molecules in this entry. The entry contains 324413 atoms, of which 160408 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 Flagellar hook protein FlgE.

Mol	Chain	Residues	Atoms						AltConf	Trace
1	1	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	2	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	3	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	4	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	5	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	6	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	7	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	8	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	9	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	w	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	x	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	y	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		
1	z	403	Total	C	H	N	O	S	0	0
			5832	1825	2865	512	621	9		

- Molecule 2 is a protein called Flagellar hook-associated protein 1.

Mol	Chain	Residues	Atoms						AltConf	Trace
2	A	552	Total	C	H	N	O	S	0	0
			8201	2547	4056	722	869	7		
2	B	552	Total	C	H	N	O	S	0	0
			8201	2547	4056	722	869	7		

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Mol	Chain	Residues	Atoms						AltConf	Trace
2	C	550	Total	C	H	N	O	S	0	0
			8184	2542	4048	723	865	6		
2	D	552	Total	C	H	N	O	S	0	0
			8201	2547	4056	722	869	7		
2	E	550	Total	C	H	N	O	S	0	0
			8163	2536	4034	720	867	6		
2	F	551	Total	C	H	N	O	S	0	0
			8182	2542	4045	721	868	6		
2	G	551	Total	C	H	N	O	S	0	0
			8182	2542	4045	721	868	6		
2	H	551	Total	C	H	N	O	S	0	0
			8178	2542	4041	721	868	6		
2	I	552	Total	C	H	N	O	S	0	0
			8201	2547	4056	722	869	7		
2	J	552	Total	C	H	N	O	S	0	0
			8201	2547	4056	722	869	7		
2	K	552	Total	C	H	N	O	S	0	0
			8201	2547	4056	722	869	7		

- Molecule 3 is a protein called Flagellar hook-associated protein.

Mol	Chain	Residues	Atoms						AltConf	Trace
3	L	306	Total	C	H	N	O	S	0	0
			4543	1404	2247	398	482	12		
3	M	312	Total	C	H	N	O	S	0	0
			4640	1436	2296	405	491	12		
3	N	313	Total	C	H	N	O	S	0	0
			4666	1443	2309	410	492	12		
3	O	310	Total	C	H	N	O	S	0	0
			4612	1428	2282	403	487	12		
3	P	307	Total	C	H	N	O	S	0	0
			4556	1408	2254	399	484	11		
3	Q	305	Total	C	H	N	O	S	0	0
			4529	1400	2240	397	480	12		
3	R	310	Total	C	H	N	O	S	0	0
			4604	1425	2277	402	488	12		
3	S	312	Total	C	H	N	O	S	0	0
			4653	1439	2303	409	490	12		
3	T	314	Total	C	H	N	O	S	0	0
			4678	1446	2315	411	494	12		
3	U	316	Total	C	H	N	O	S	0	0
			4681	1457	2302	413	496	13		

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Mol	Chain	Residues	Atoms						AltConf	Trace
3	V	315	Total	C	H	N	O	S	0	0
			4697	1452	2326	412	495	12		

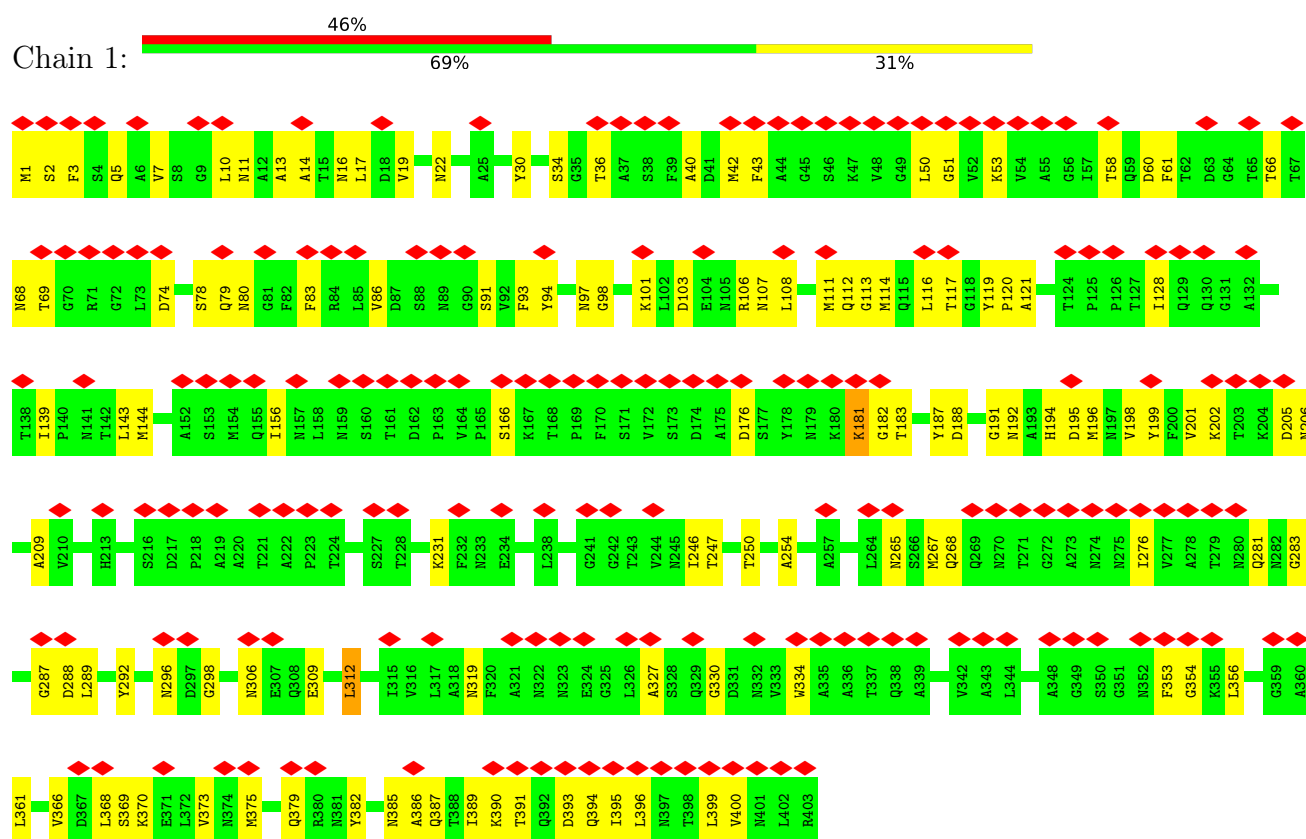
- Molecule 4 is a protein called Flagellin.

Mol	Chain	Residues	Atoms						AltConf	Trace
4	a	494	Total	C	H	N	O	S	0	0
			7189	2189	3574	640	784	2		
4	b	493	Total	C	H	N	O	S	0	0
			7151	2186	3541	639	783	2		
4	c	494	Total	C	H	N	O	S	0	0
			7167	2189	3552	640	784	2		
4	d	494	Total	C	H	N	O	S	0	0
			7189	2189	3574	640	784	2		
4	e	494	Total	C	H	N	O	S	0	0
			7189	2189	3574	640	784	2		
4	f	495	Total	C	H	N	O	S	0	0
			7164	2194	3541	641	785	3		
4	g	493	Total	C	H	N	O	S	0	0
			7179	2186	3569	639	783	2		
4	h	494	Total	C	H	N	O	S	0	0
			7189	2189	3574	640	784	2		
4	i	494	Total	C	H	N	O	S	0	0
			7176	2189	3561	640	784	2		
4	j	493	Total	C	H	N	O	S	0	0
			7179	2186	3569	639	783	2		
4	k	494	Total	C	H	N	O	S	0	0
			7189	2189	3574	640	784	2		
4	l	492	Total	C	H	N	O	S	0	0
			7162	2181	3561	637	781	2		
4	m	492	Total	C	H	N	O	S	0	0
			7162	2181	3561	637	781	2		
4	n	493	Total	C	H	N	O	S	0	0
			7179	2186	3569	639	783	2		
4	o	493	Total	C	H	N	O	S	0	0
			7179	2186	3569	639	783	2		

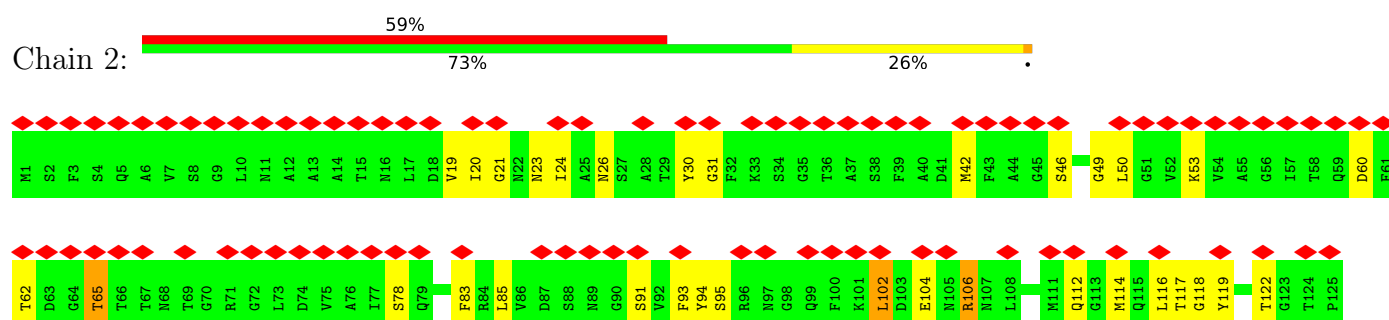
3 Residue-property plots

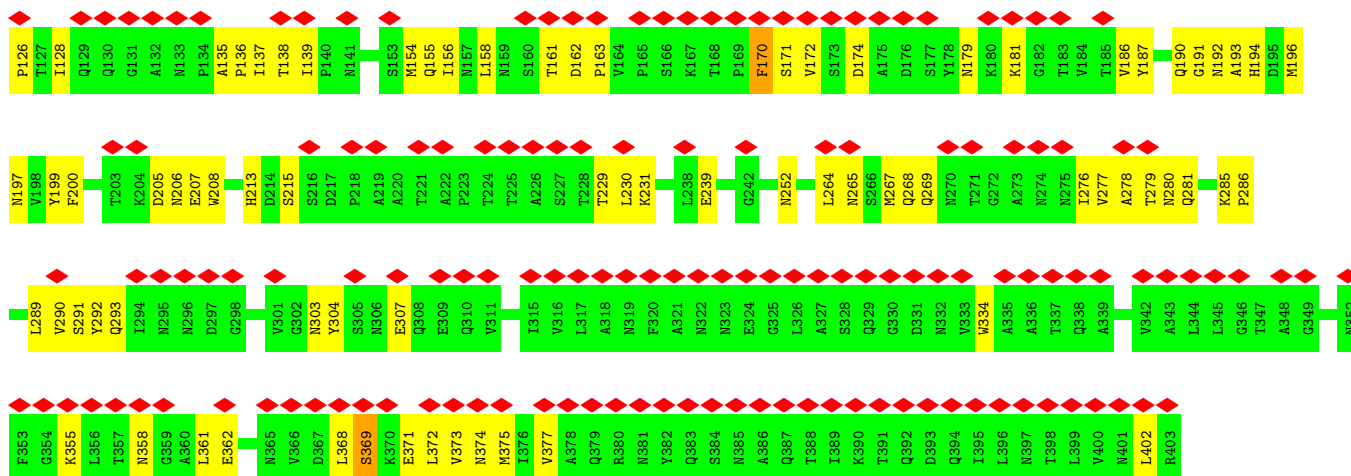
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: Flagellar hook protein FlgE

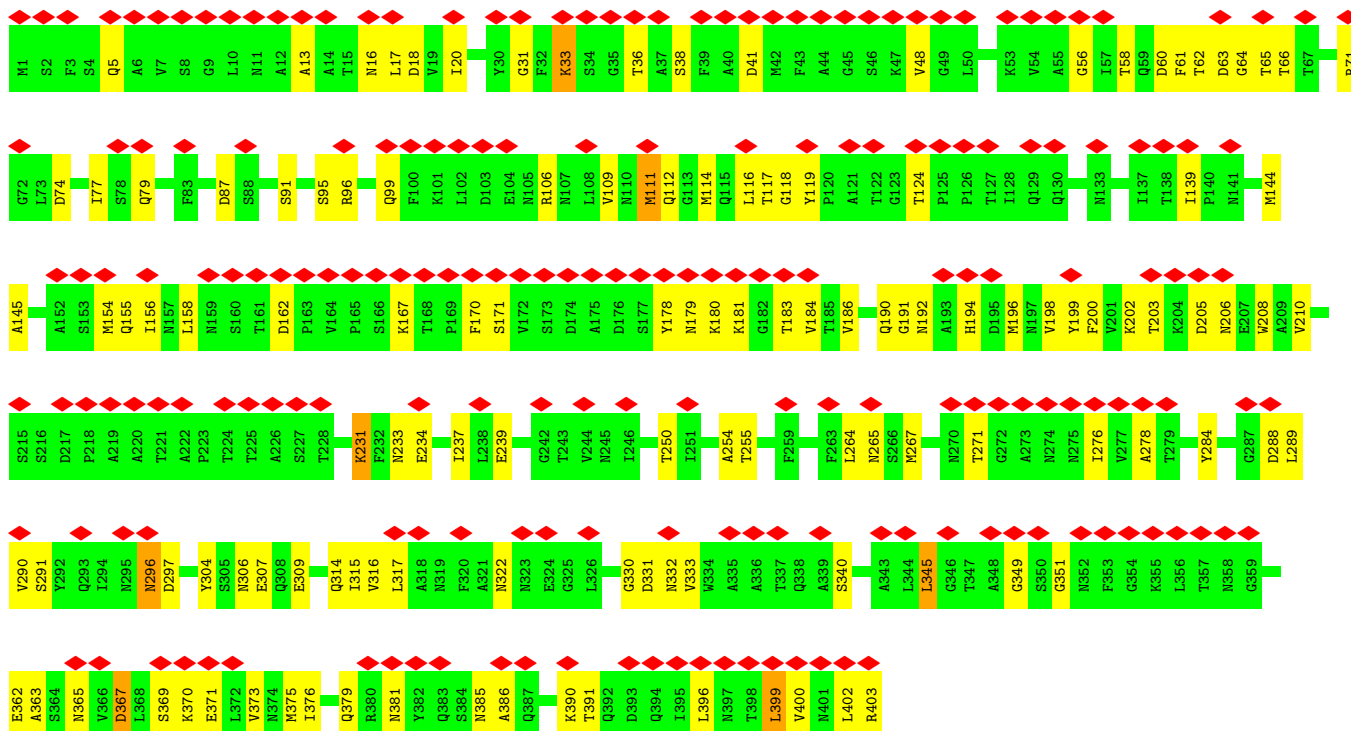


• Molecule 1: Flagellar hook protein FlgE

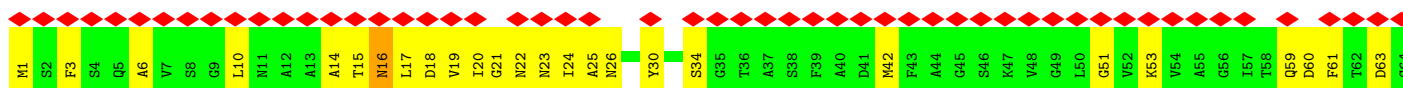


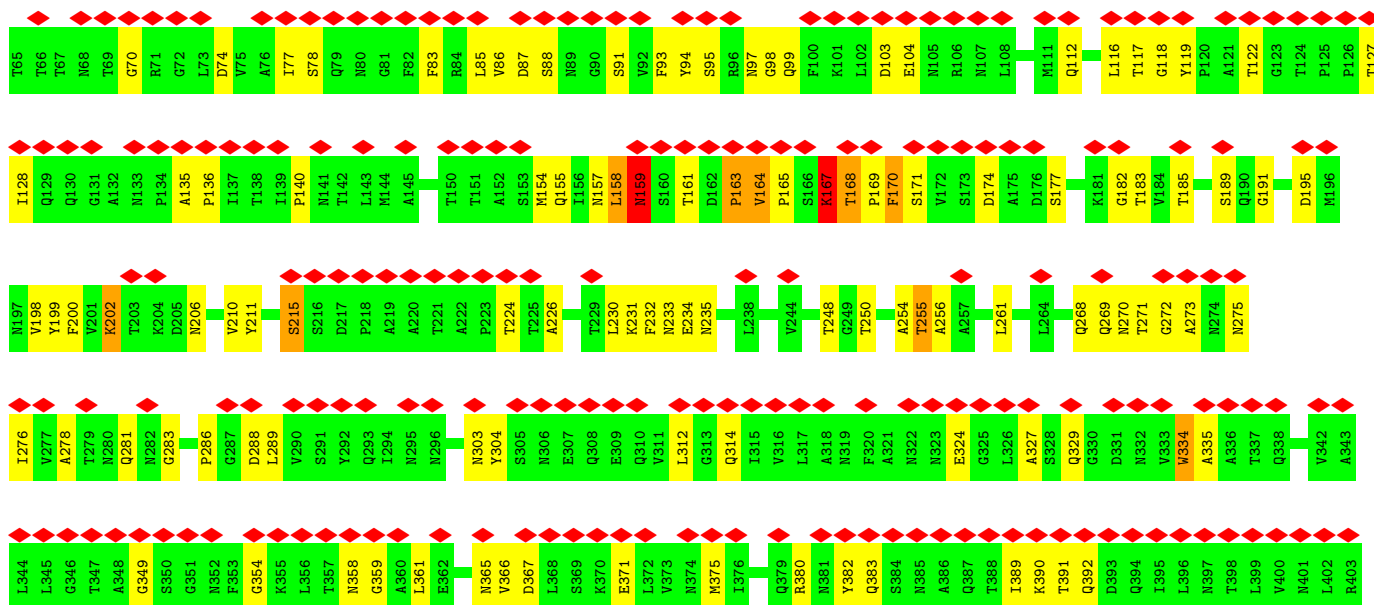


• Molecule 1: Flagellar hook protein FlgE

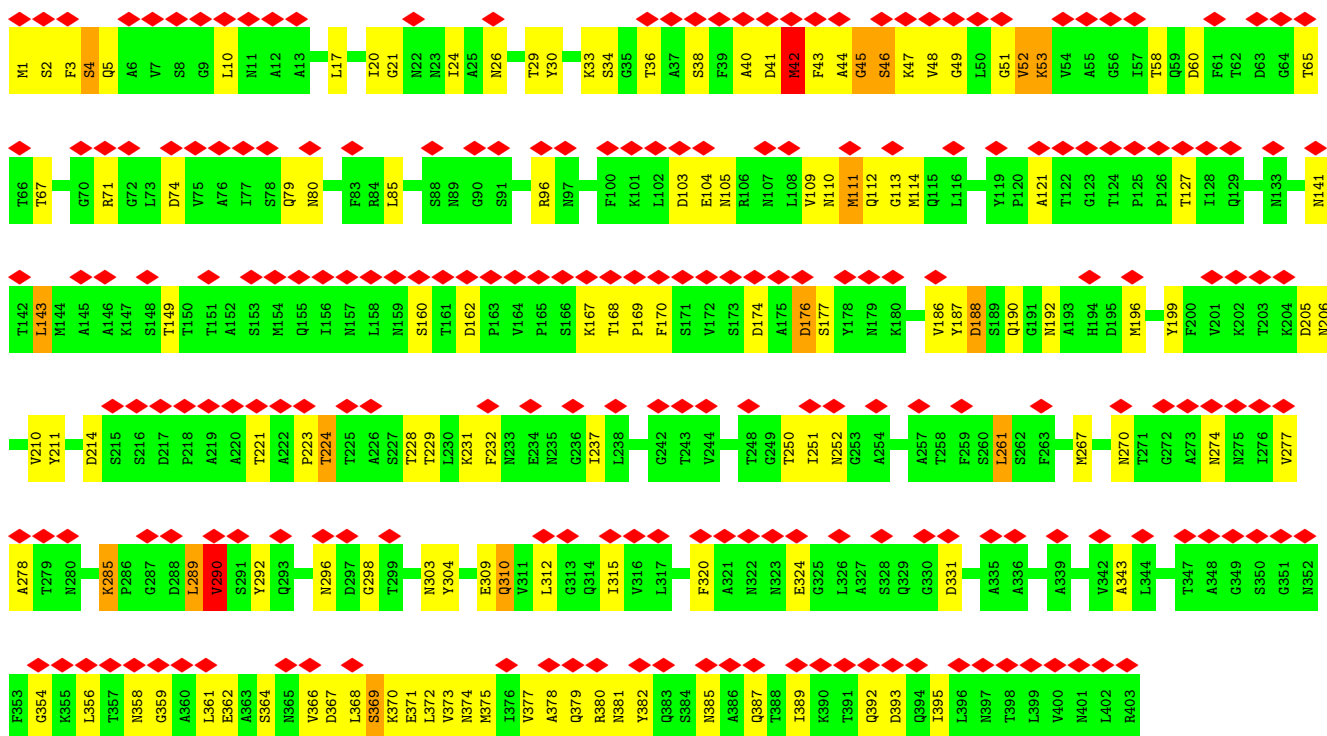


• Molecule 1: Flagellar hook protein FlgE

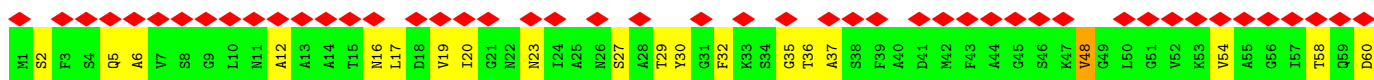


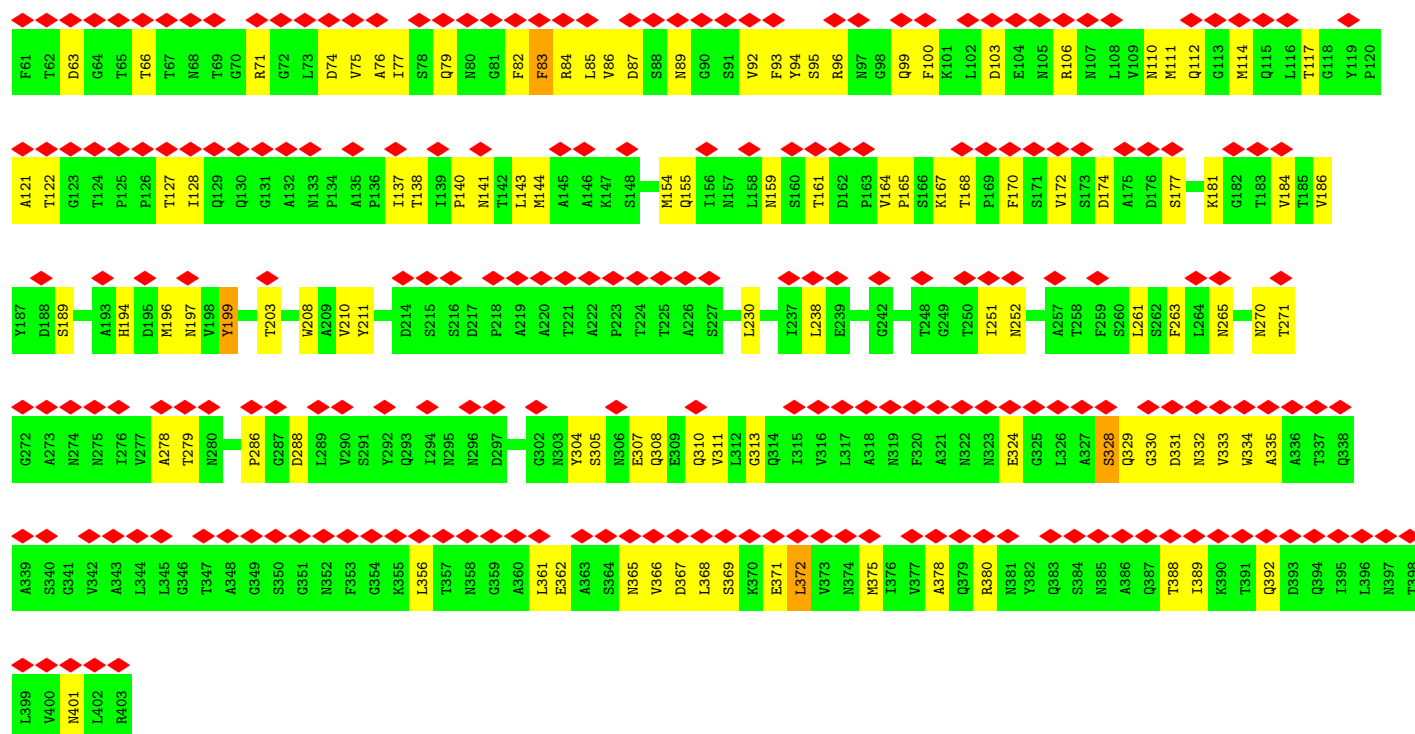


• Molecule 1: Flagellar hook protein FlgE

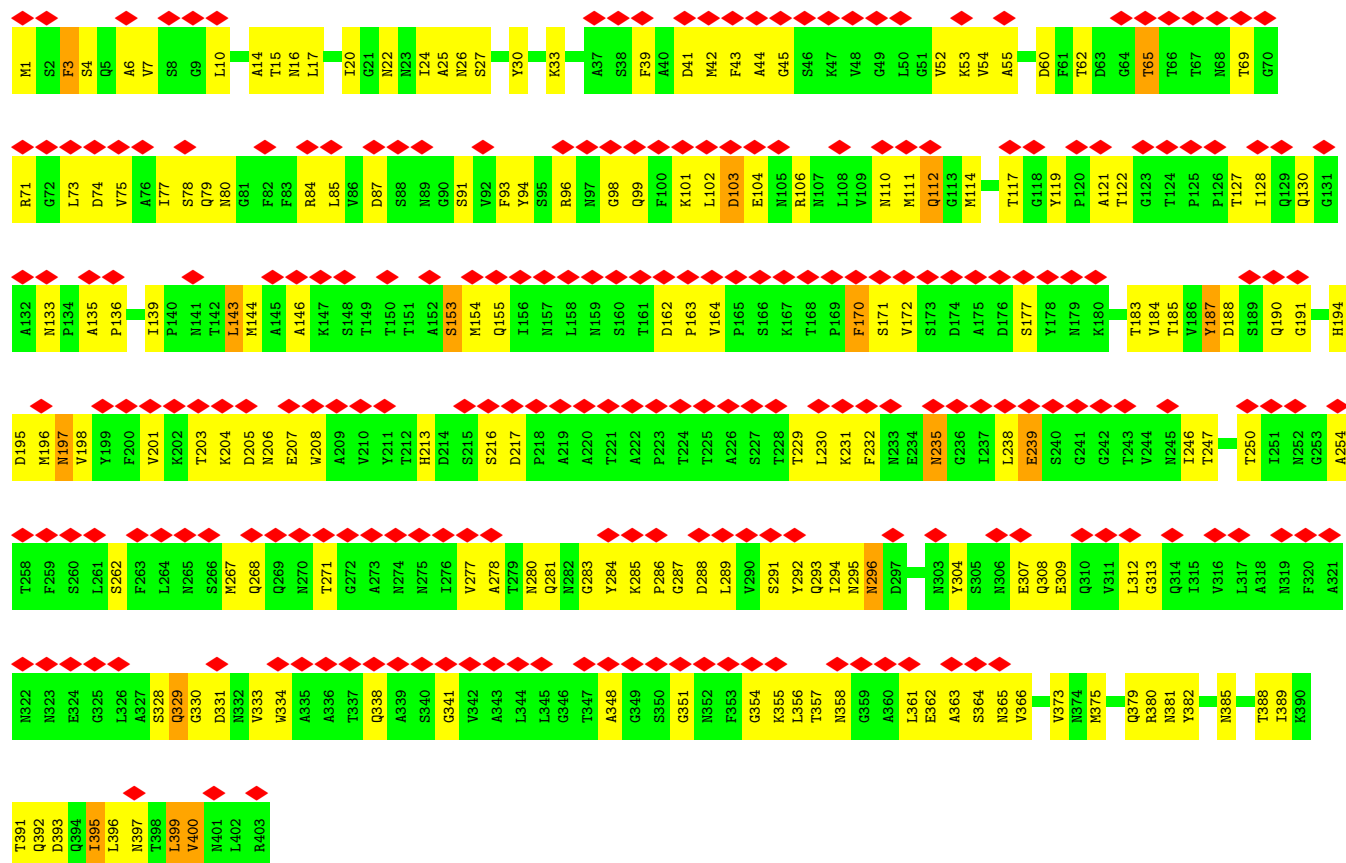


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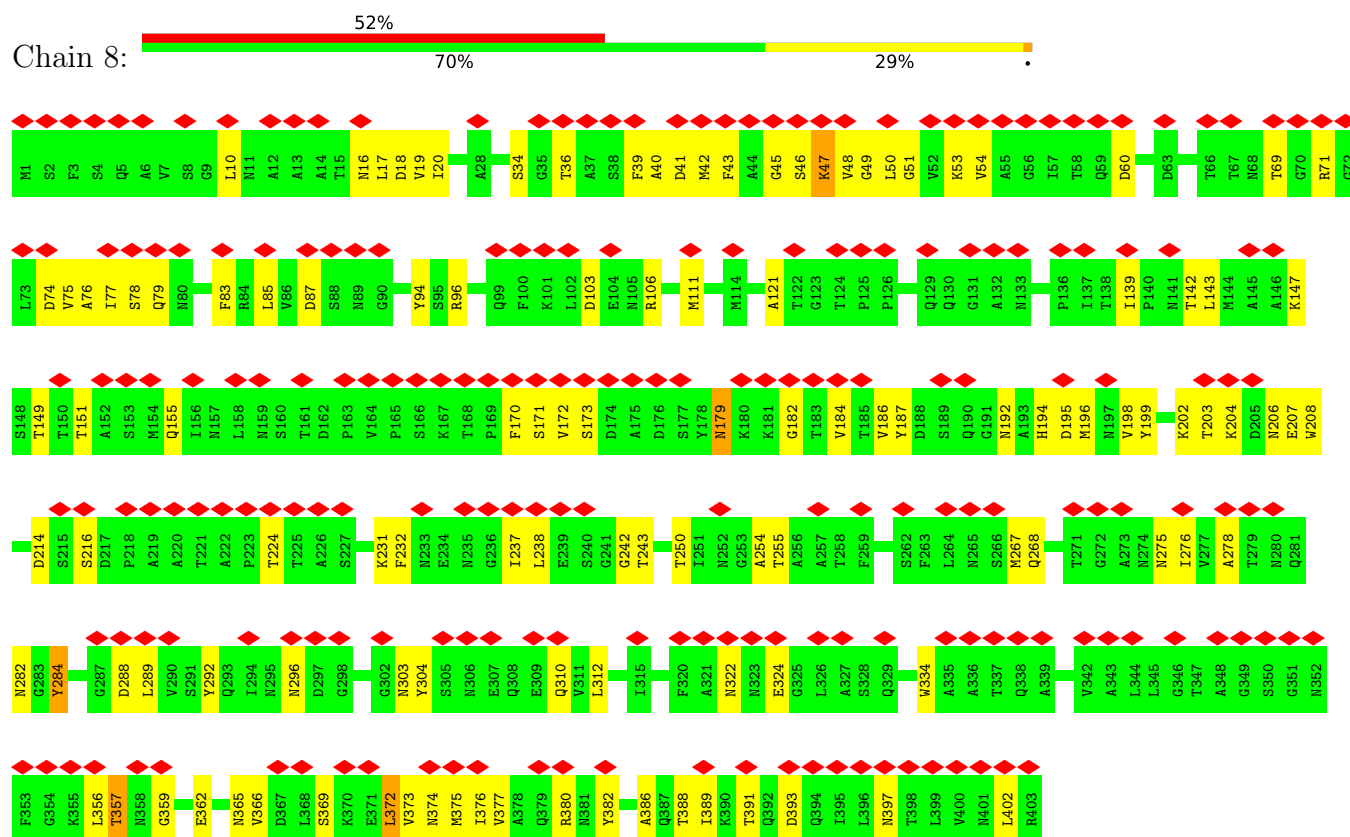




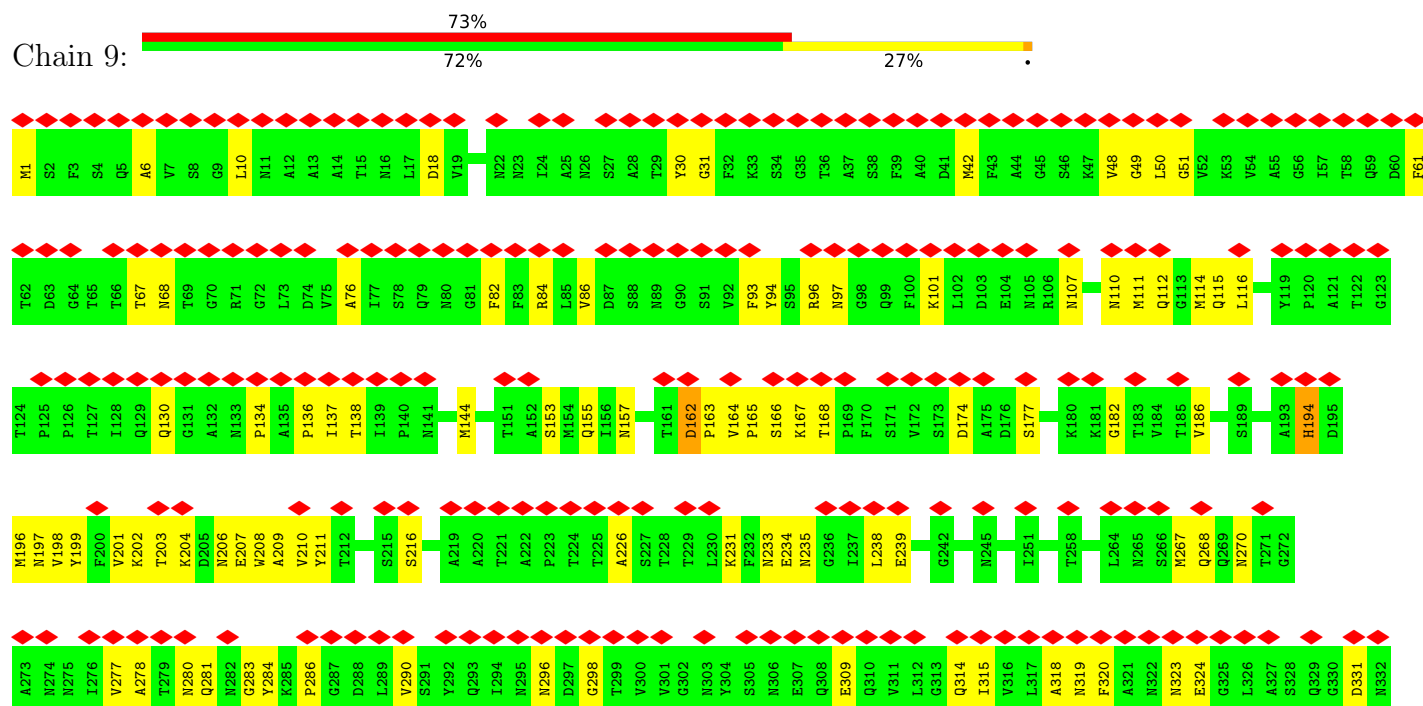
● Molecule 1: Flagellar hook protein FlgE

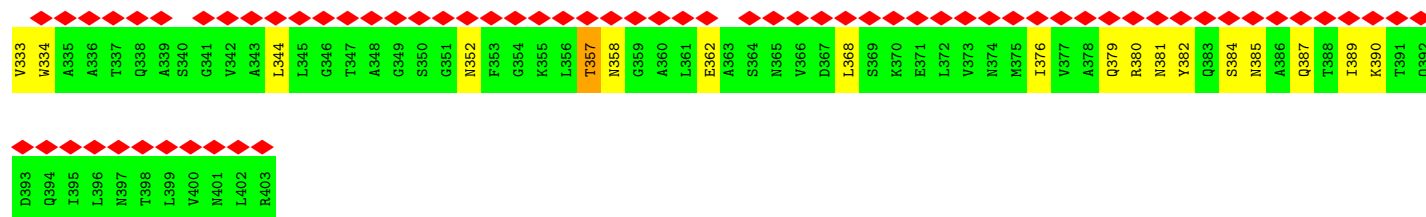


• Molecule 1: Flagellar hook protein FlgE

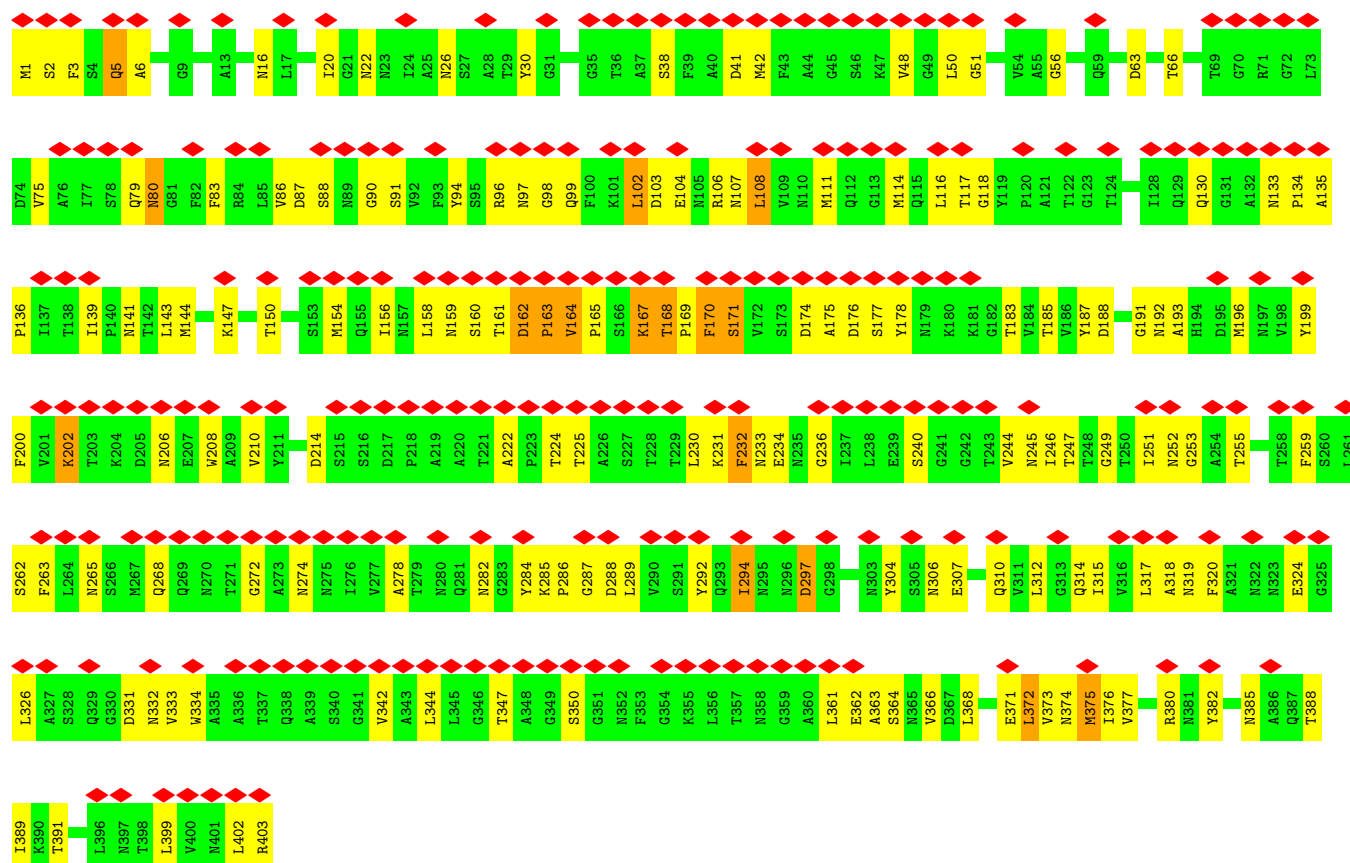


• Molecule 1: Flagellar hook protein FlgE

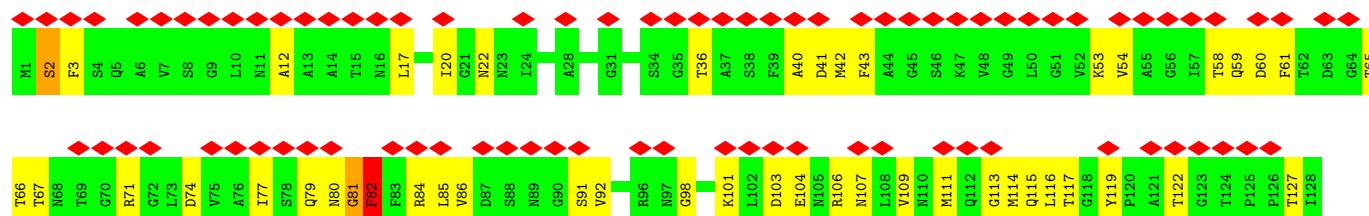


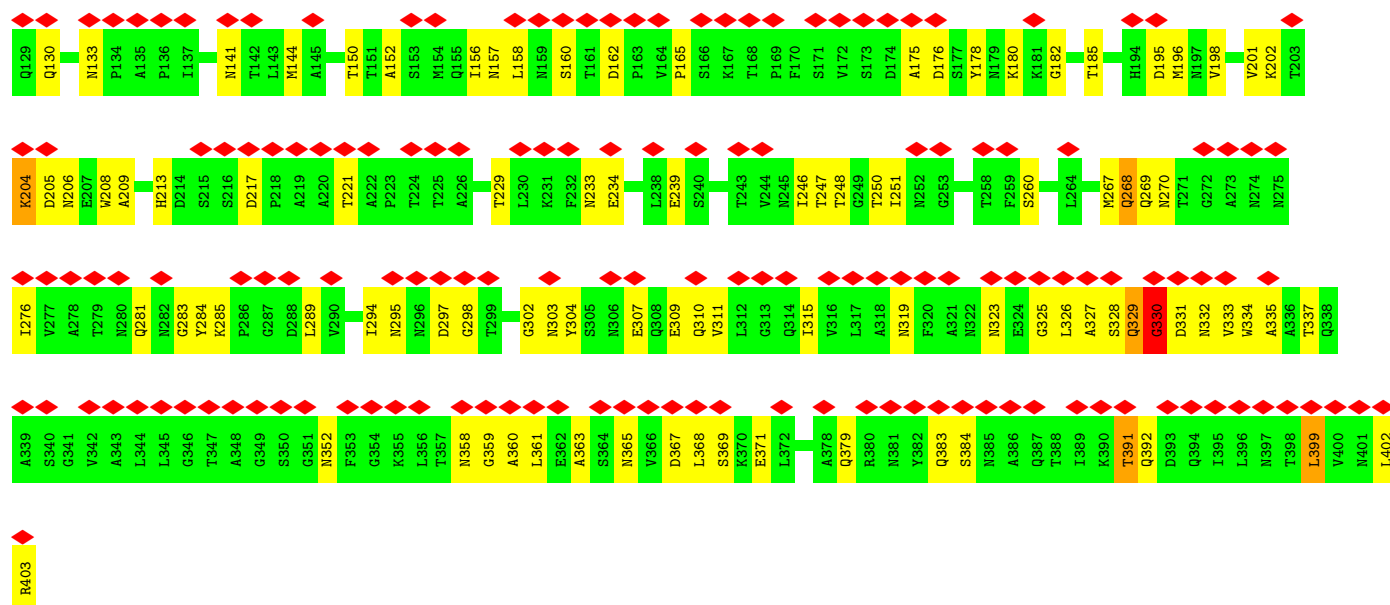


• Molecule 1: Flagellar hook protein FlgE

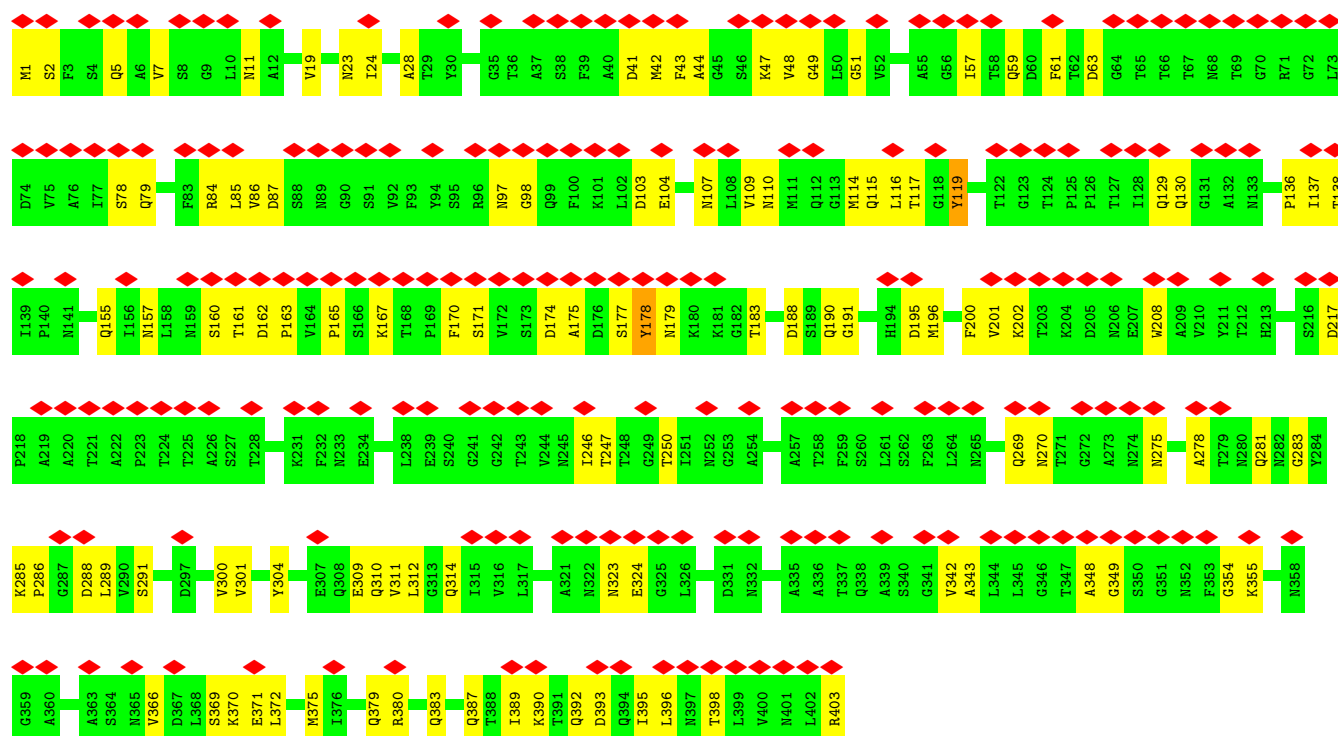


• Molecule 1: Flagellar hook protein FlgE



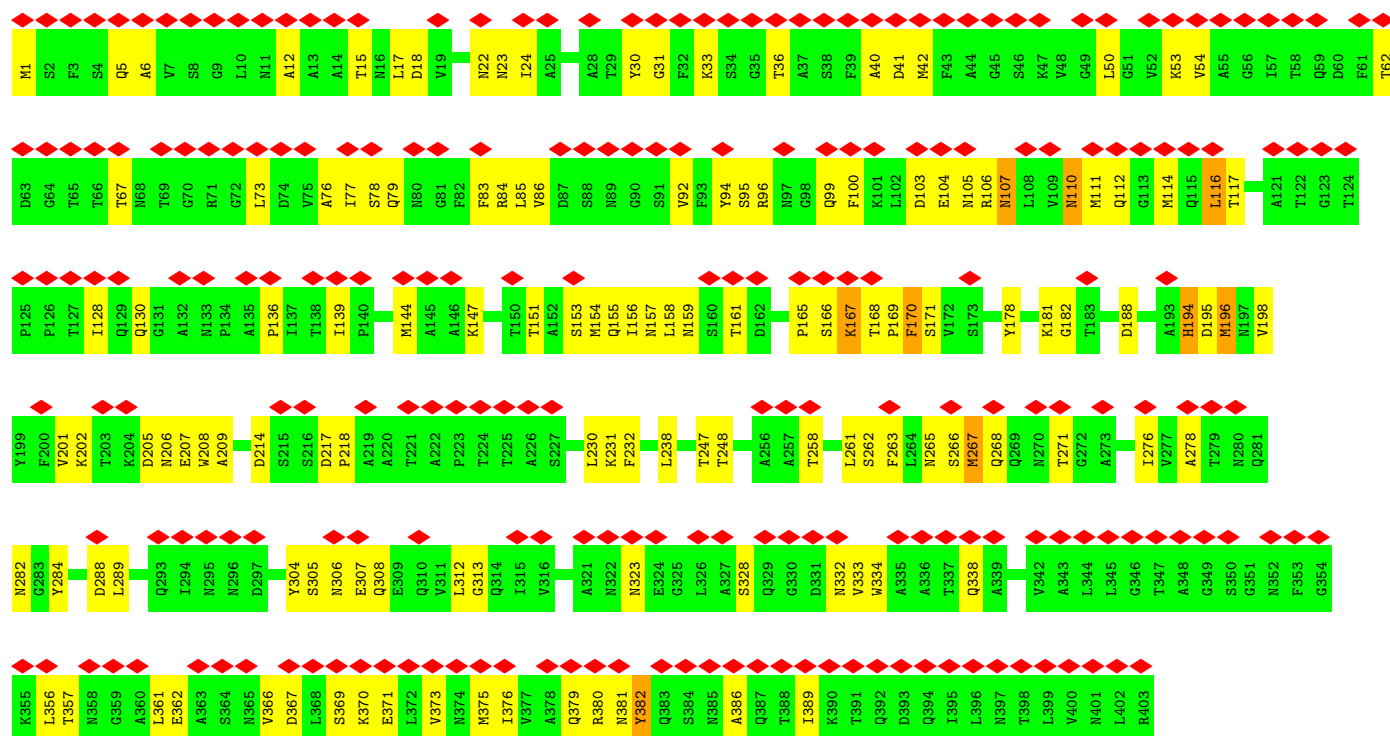


• Molecule 1: Flagellar hook protein FlgE

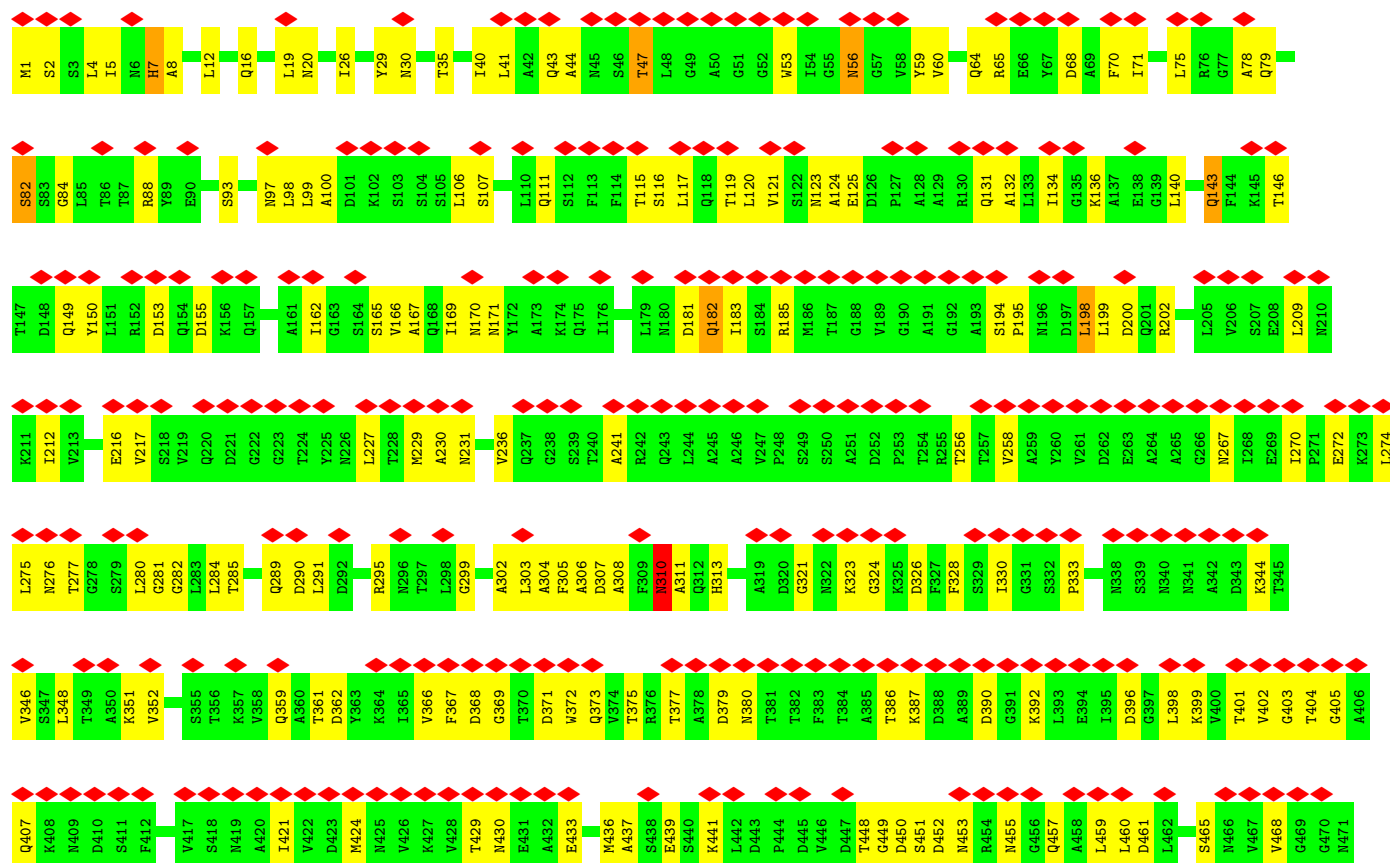


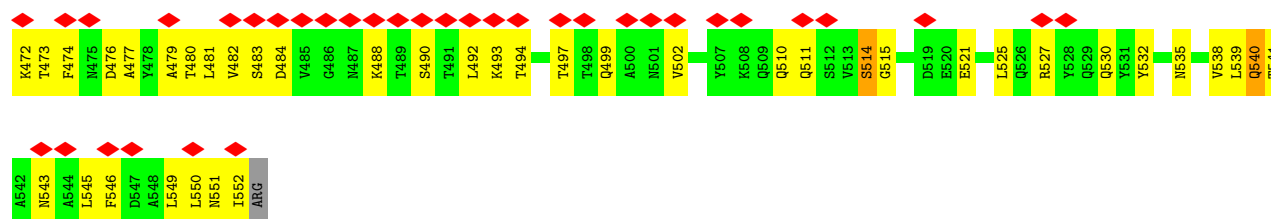
• Molecule 1: Flagellar hook protein FlgE



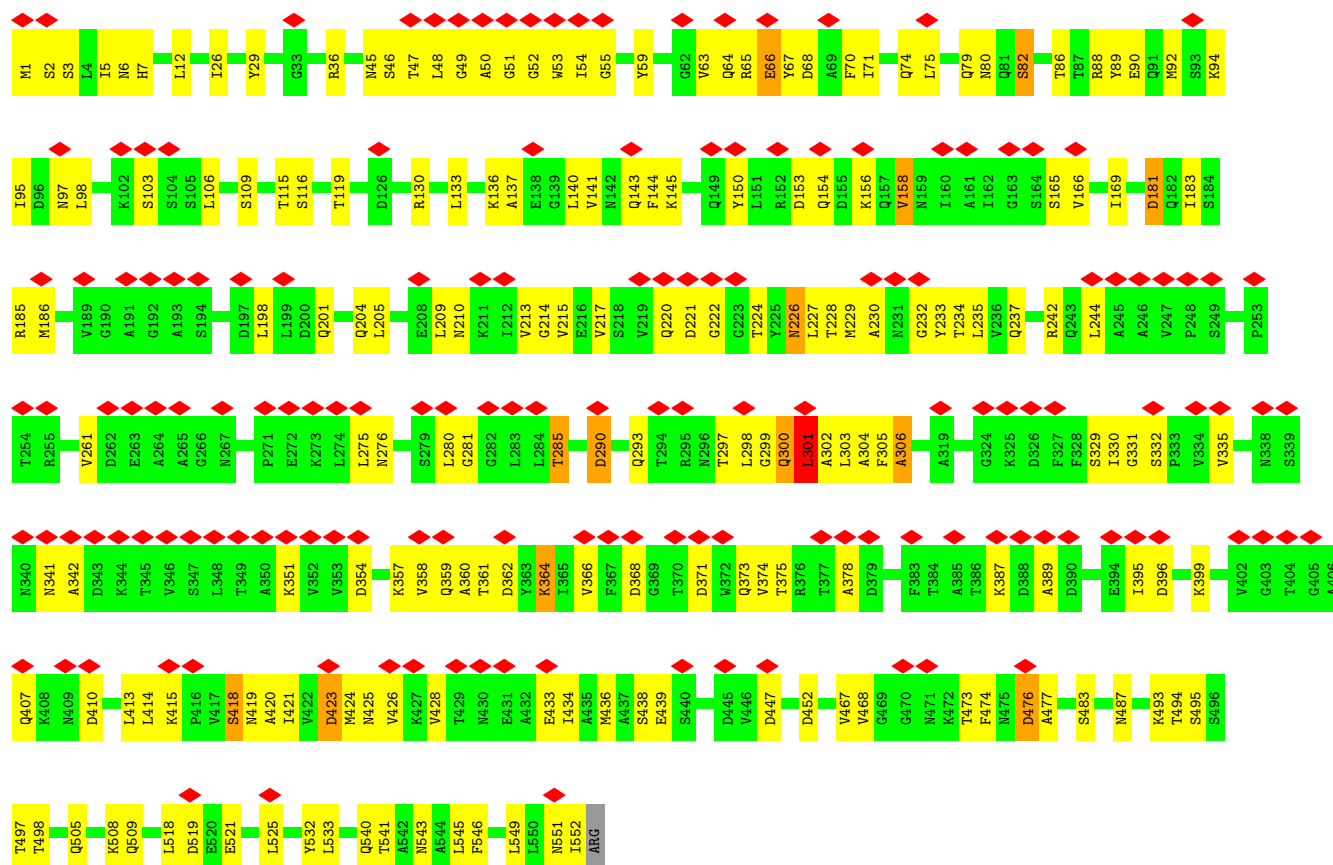


• Molecule 2: Flagellar hook-associated protein 1

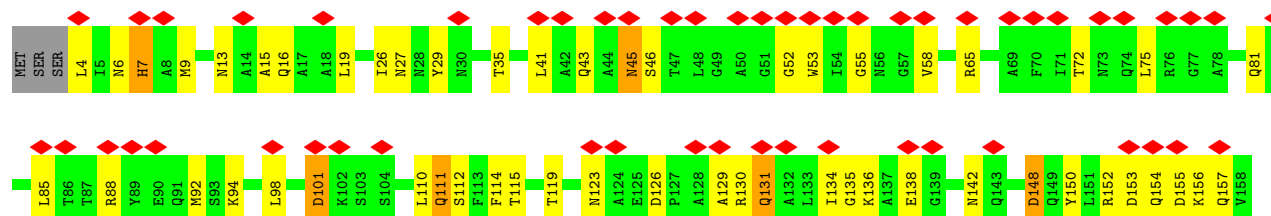
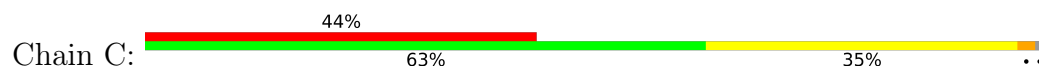


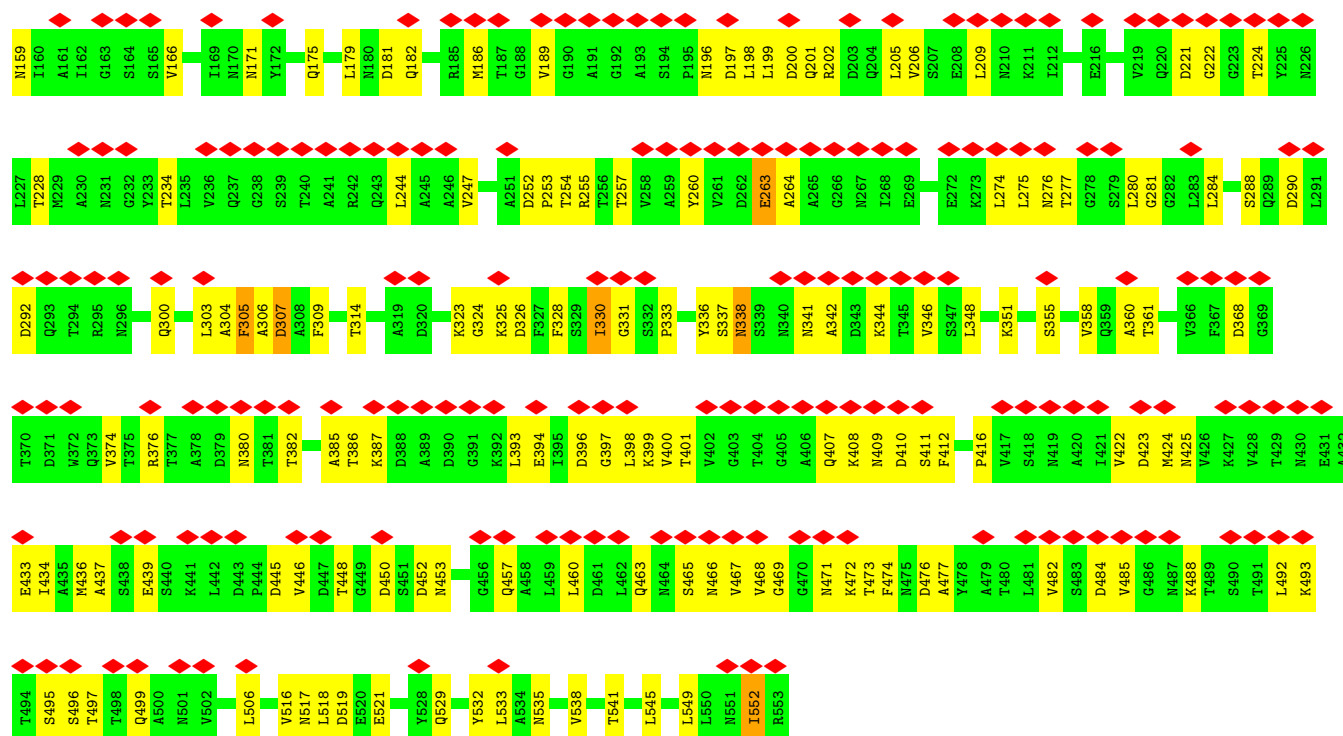


• Molecule 2: Flagellar hook-associated protein 1

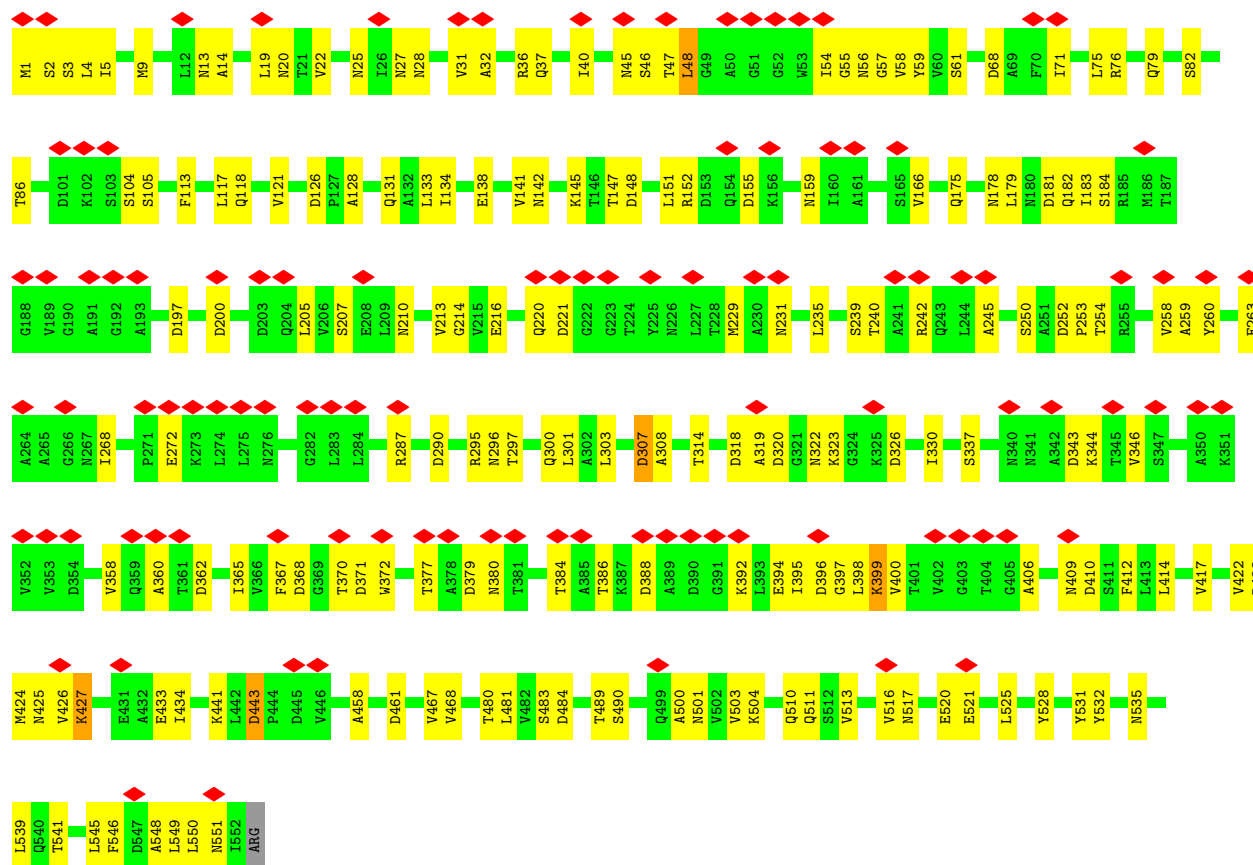


• Molecule 2: Flagellar hook-associated protein 1

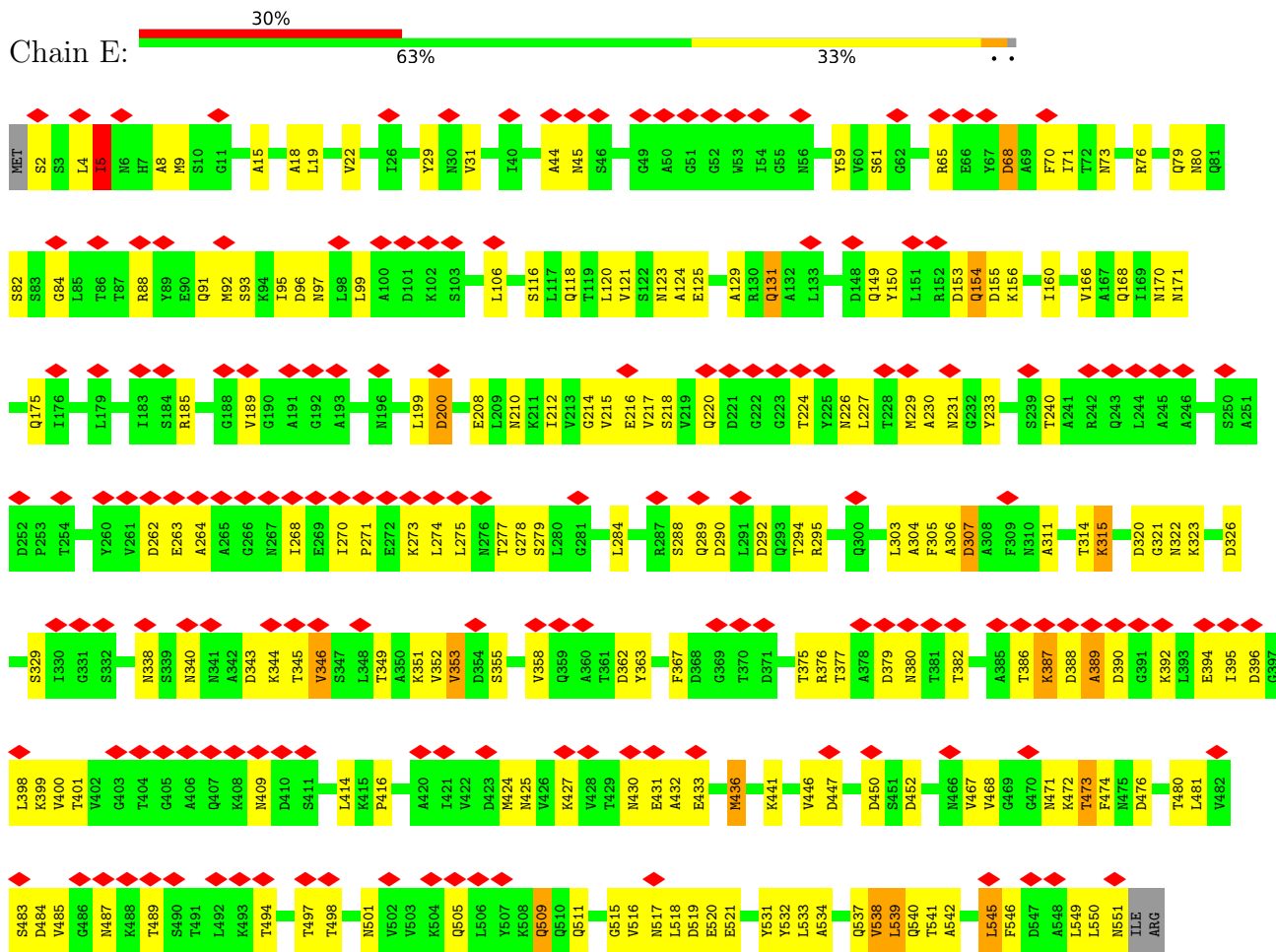




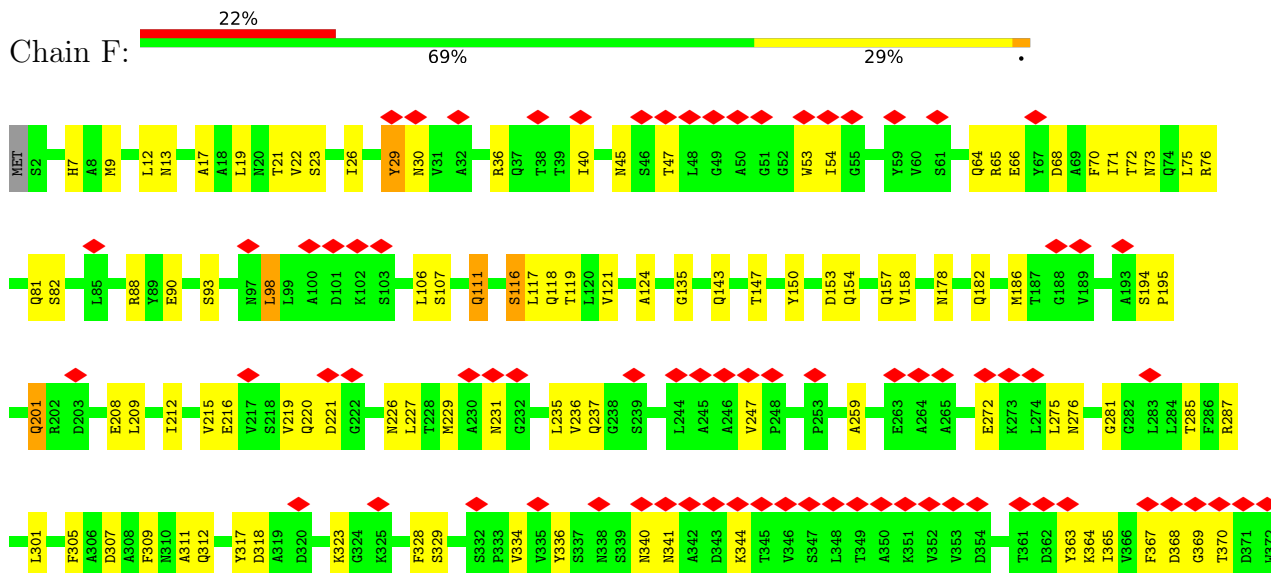
• Molecule 2: Flagellar hook-associated protein 1

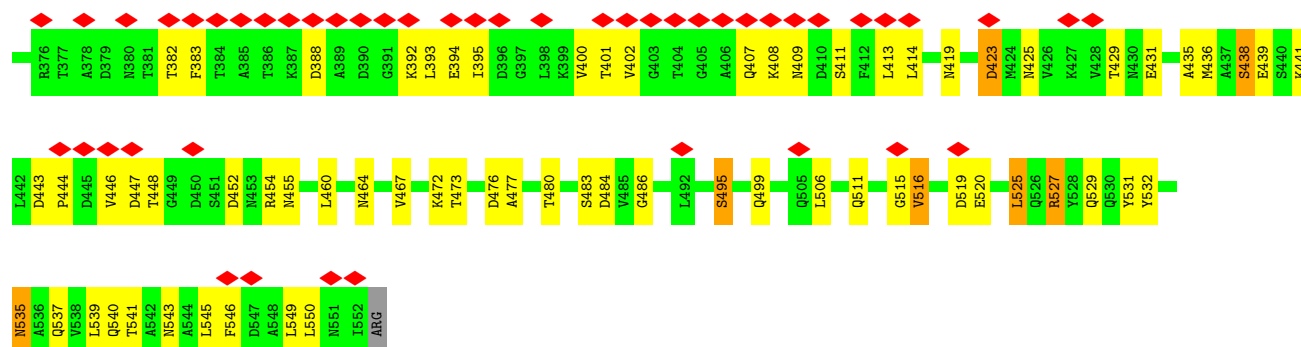


Chain E:

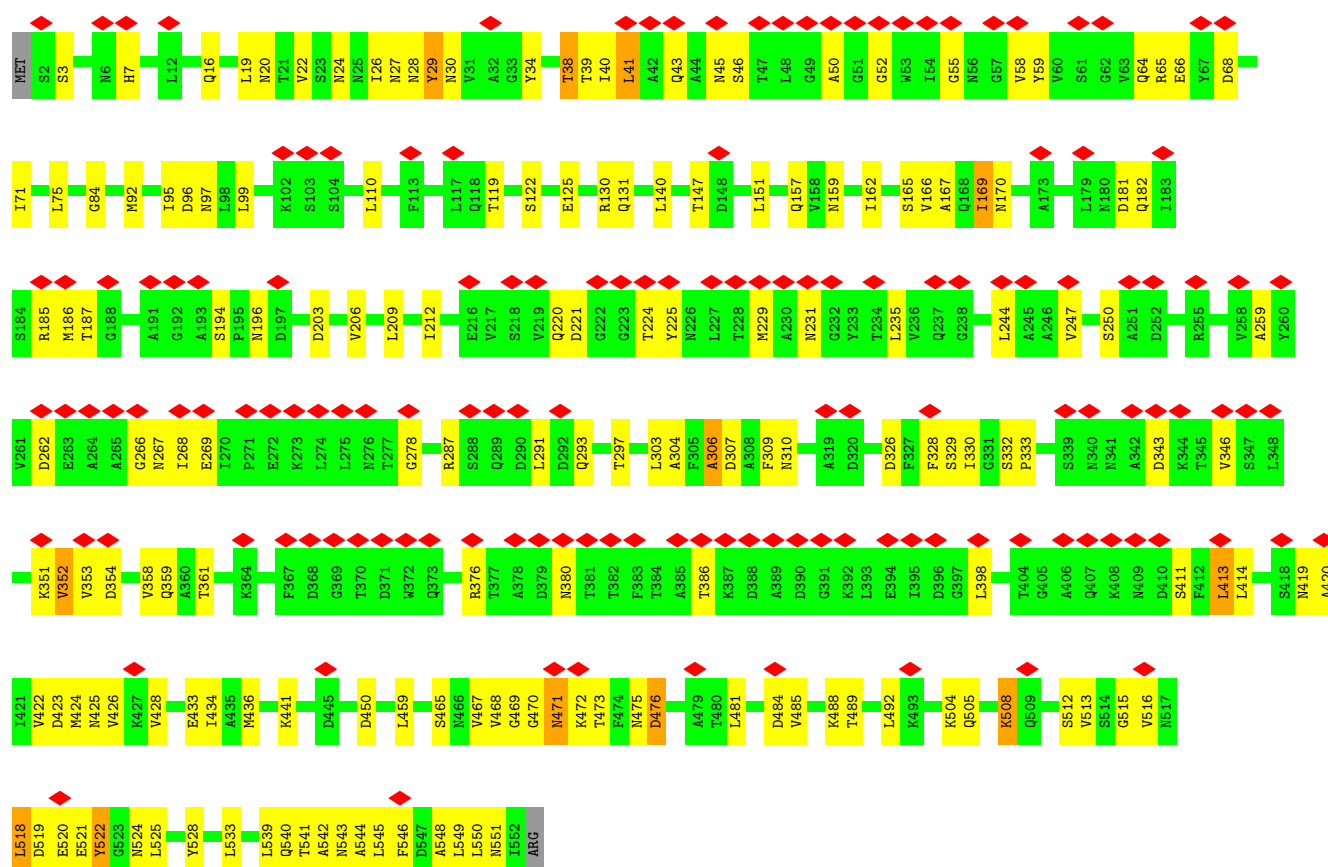


Chain F:

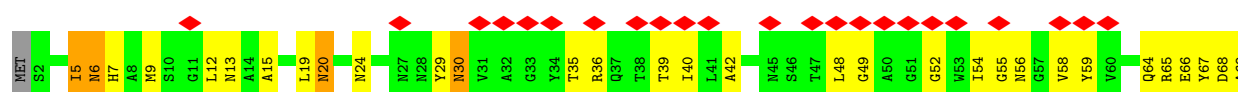


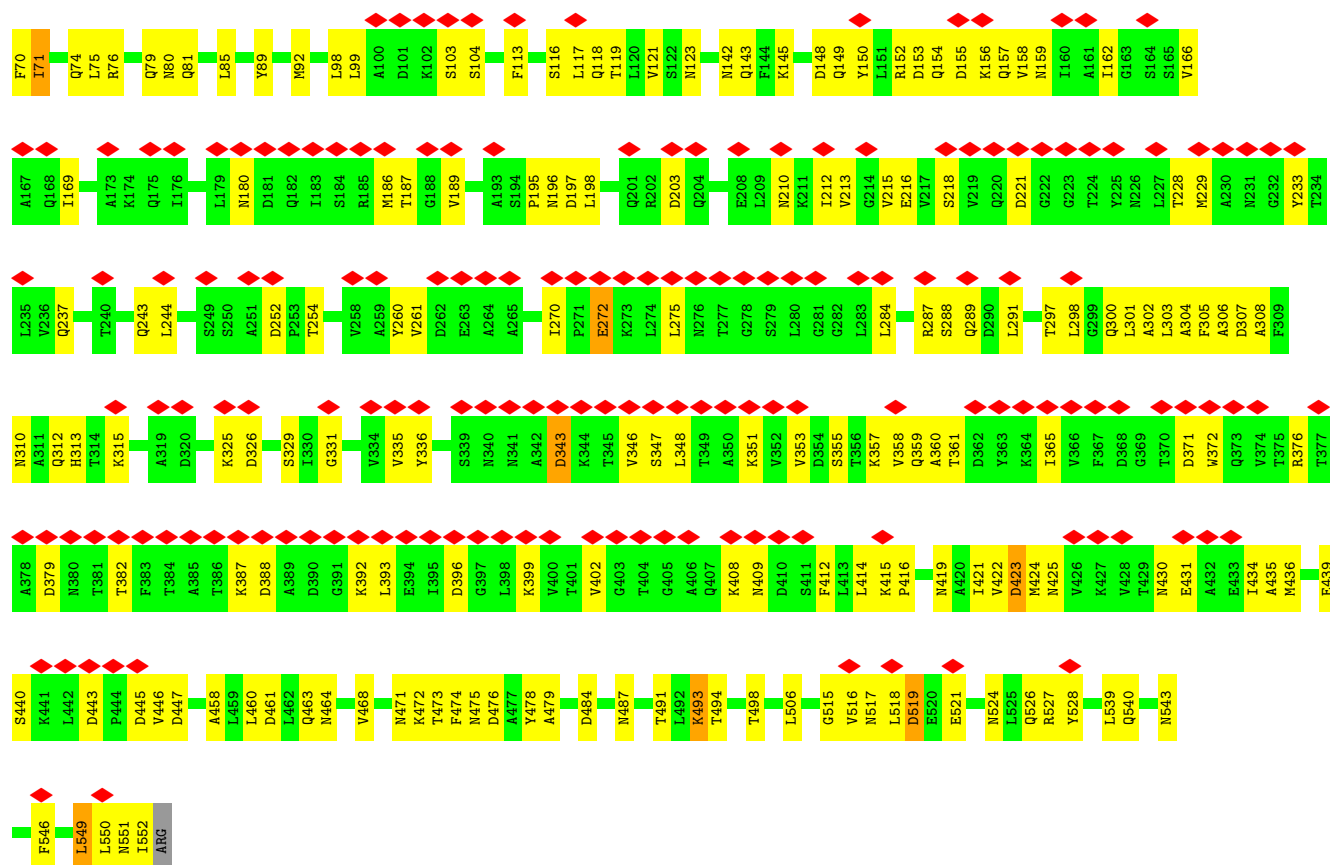


• Molecule 2: Flagellar hook-associated protein 1

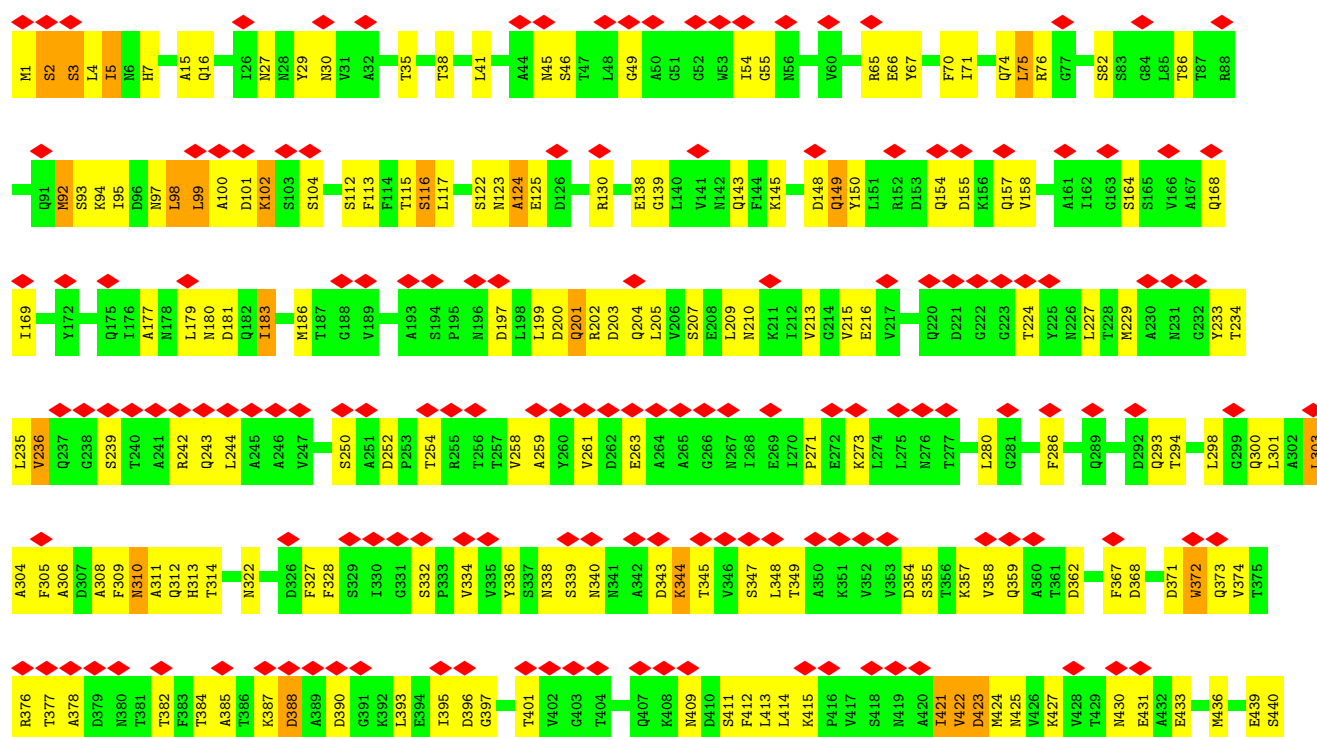


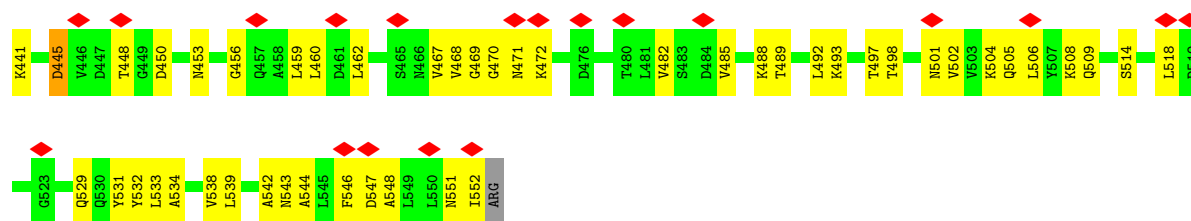
• Molecule 2: Flagellar hook-associated protein 1



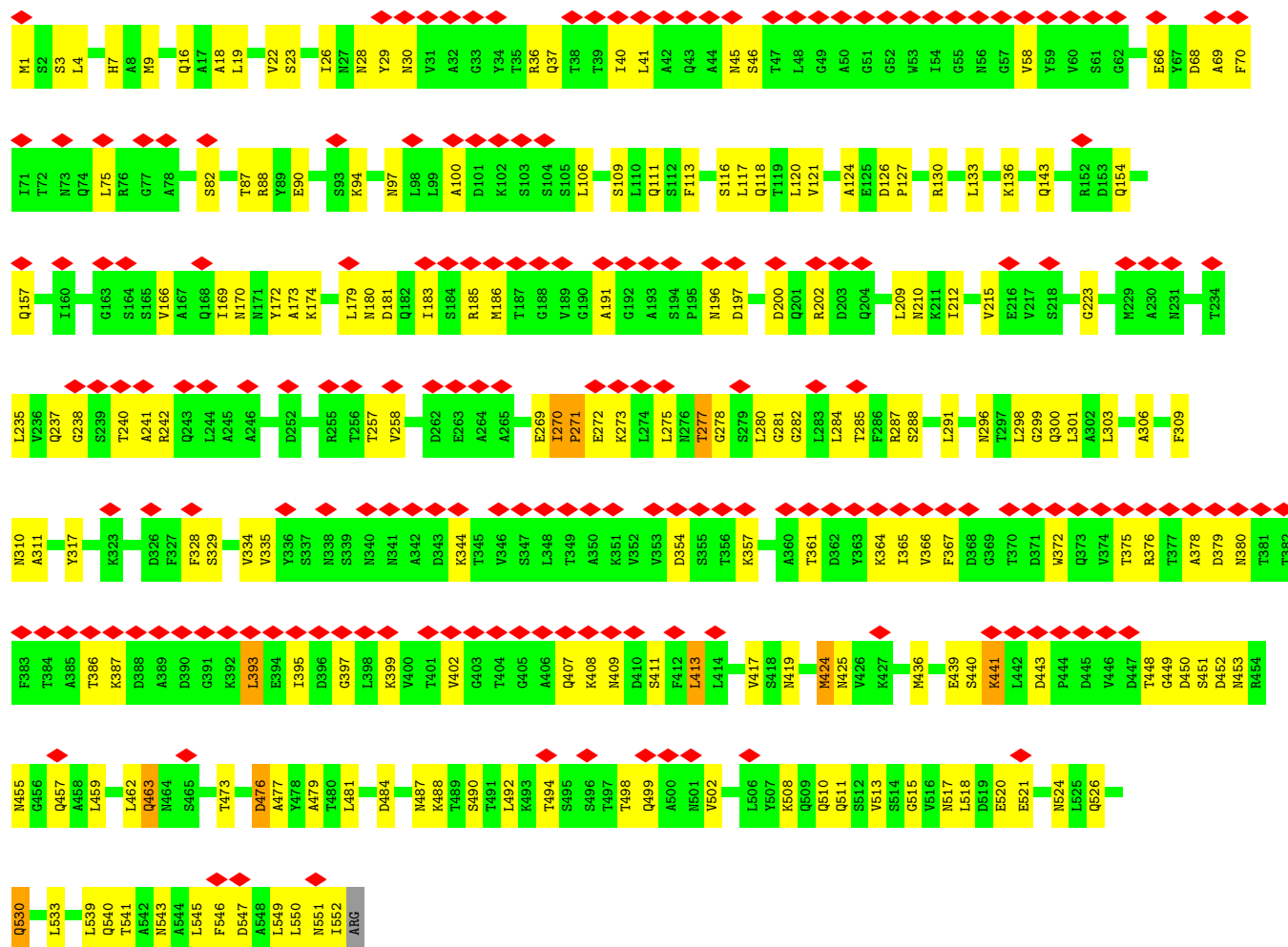


• Molecule 2: Flagellar hook-associated protein 1

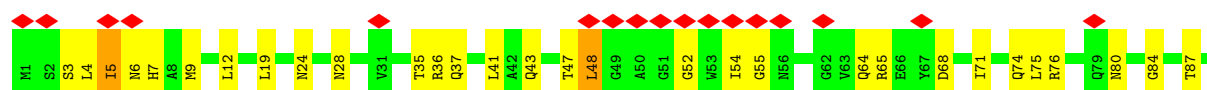


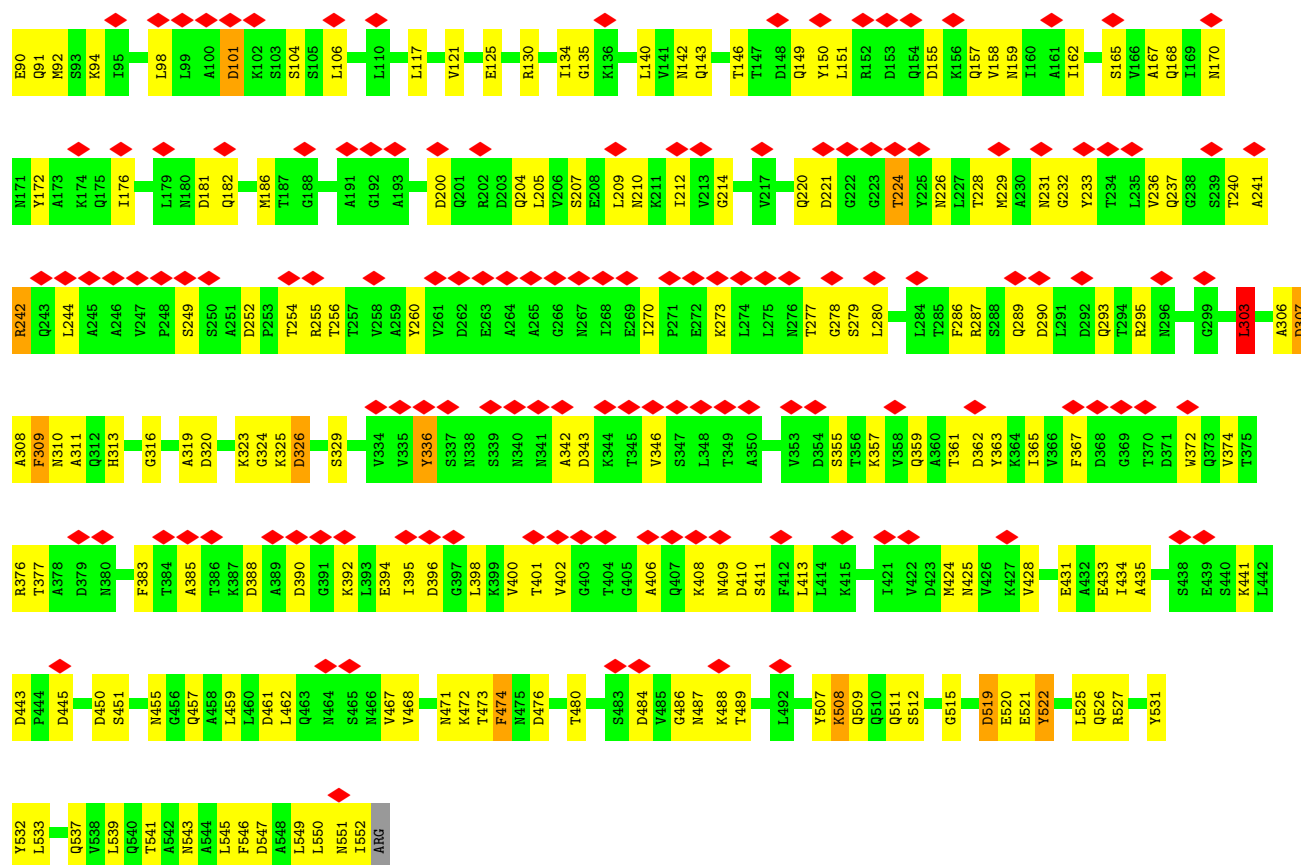


• Molecule 2: Flagellar hook-associated protein 1

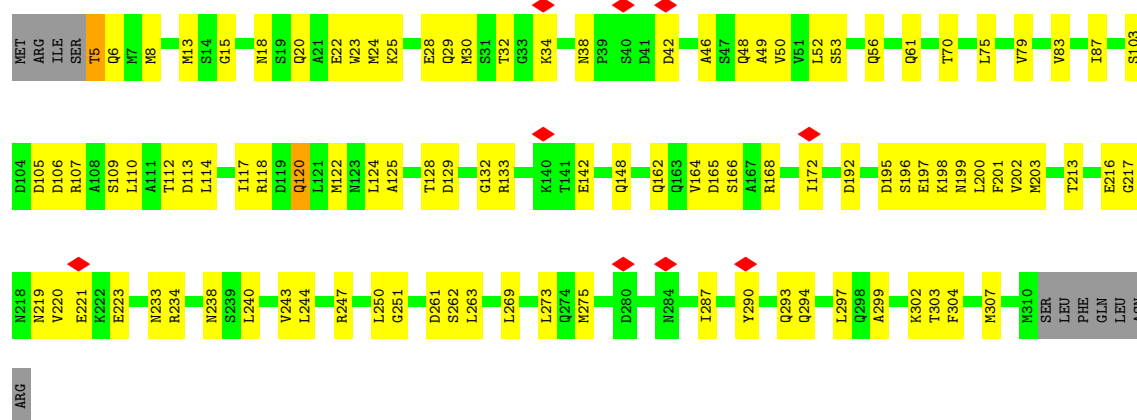


• Molecule 2: Flagellar hook-associated protein 1



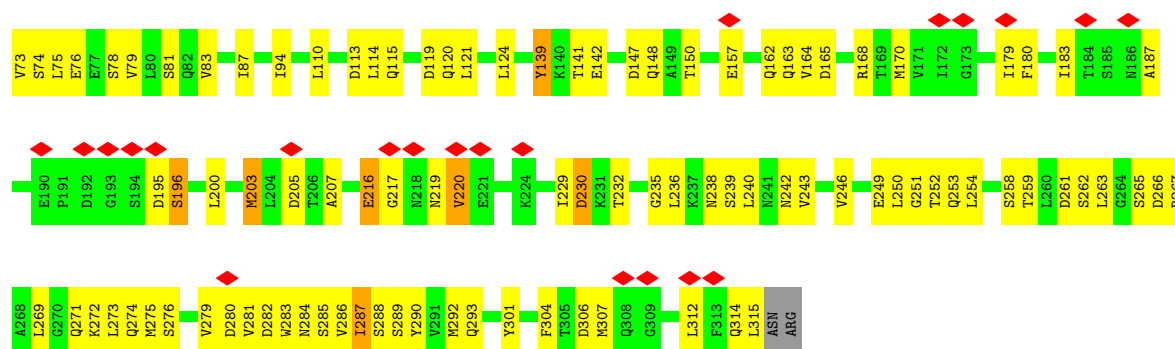


• Molecule 3: Flagellar hook-associated protein



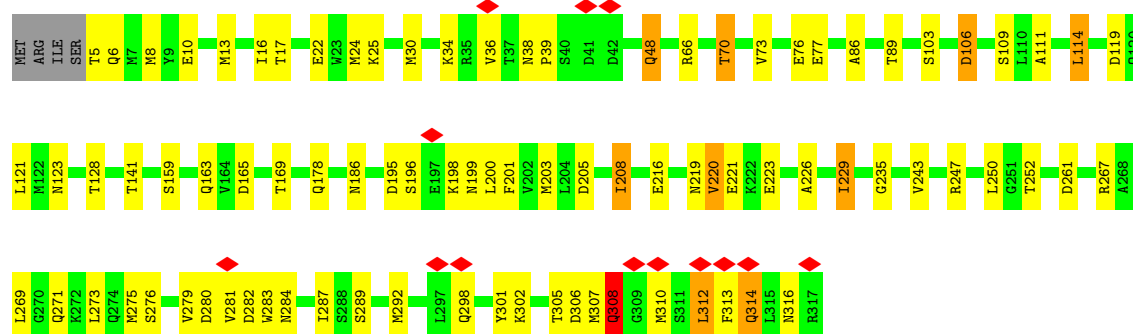
• Molecule 3: Flagellar hook-associated protein





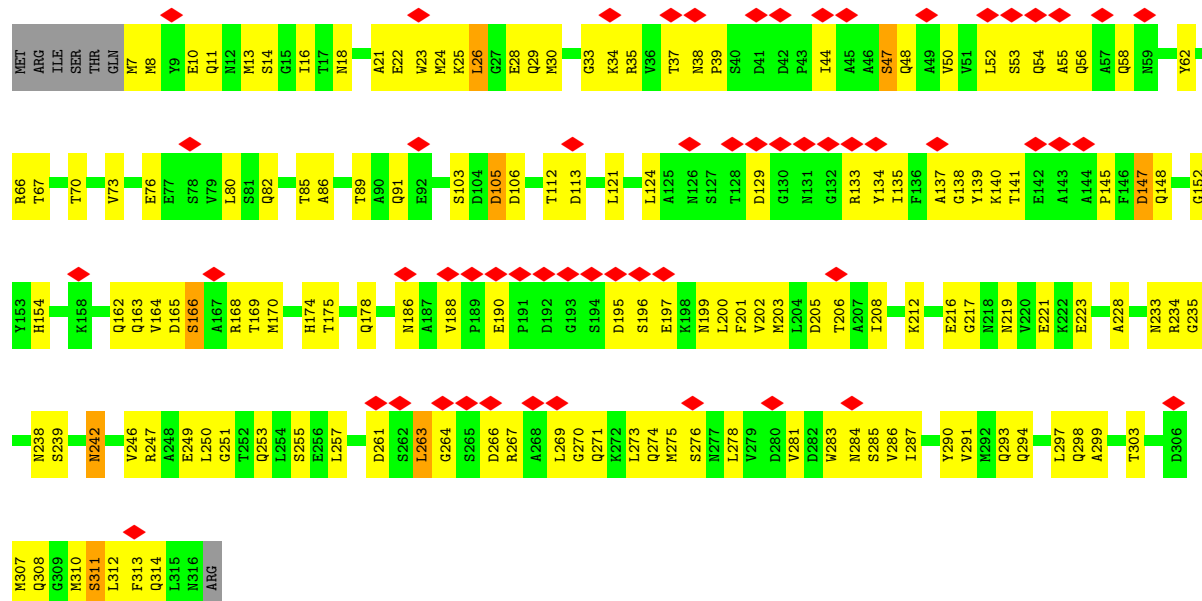
• Molecule 3: Flagellar hook-associated protein

Chain N: 71% 25%



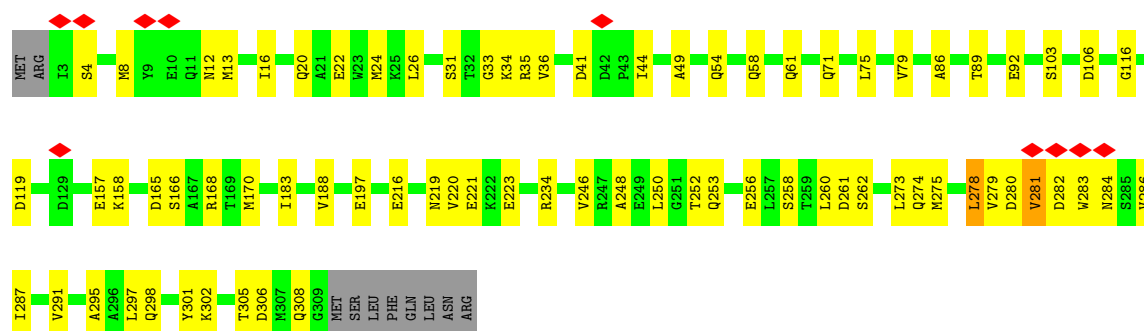
• Molecule 3: Flagellar hook-associated protein

Chain O: 18% 52% 44%



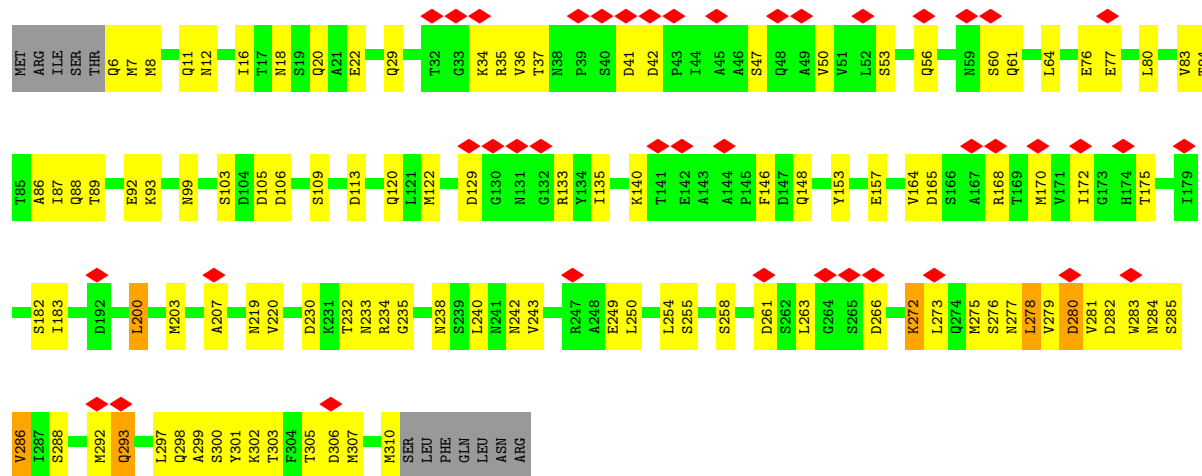
• Molecule 3: Flagellar hook-associated protein

Chain P:  73% 23% ..



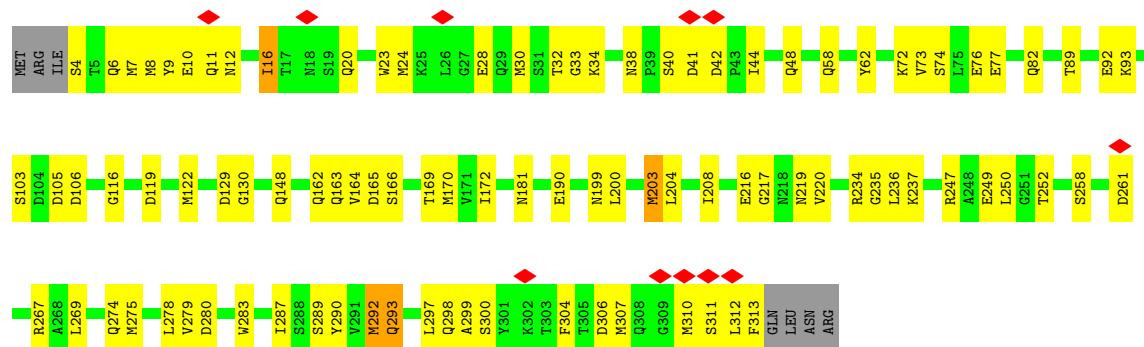
• Molecule 3: Flagellar hook-associated protein

Chain Q:  13% 62% 32% ..



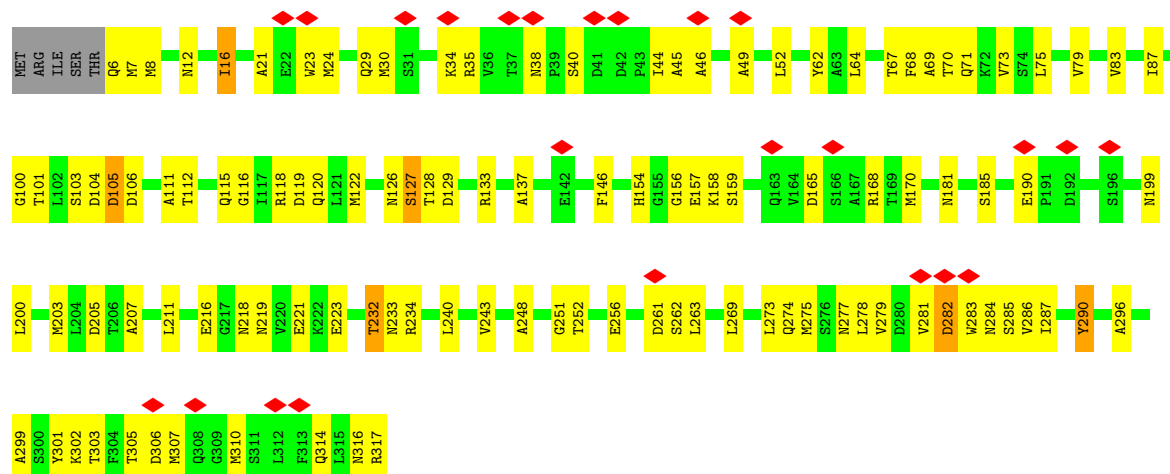
• Molecule 3: Flagellar hook-associated protein

Chain R:  68% 29% ..



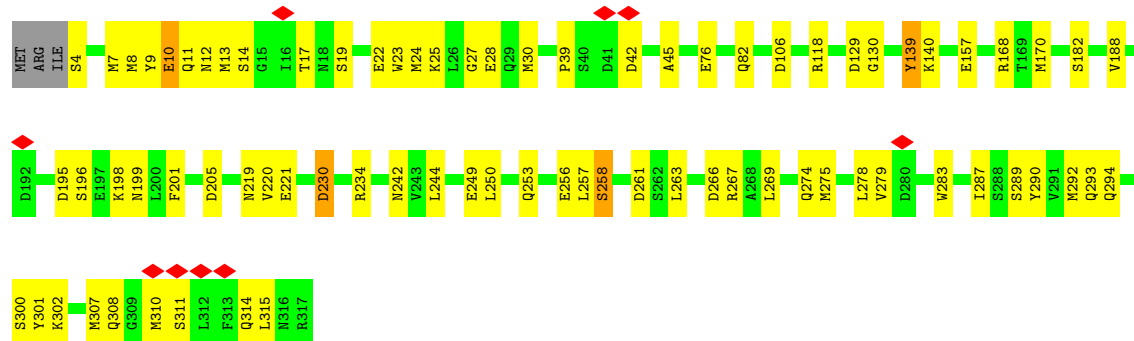
• Molecule 3: Flagellar hook-associated protein

Chain S:  8% 63% 34% ..



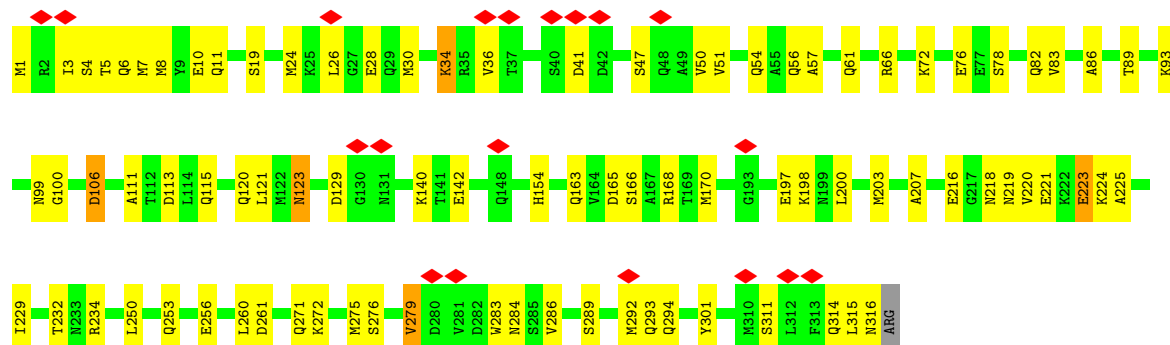
• Molecule 3: Flagellar hook-associated protein

Chain T: 74% 23%



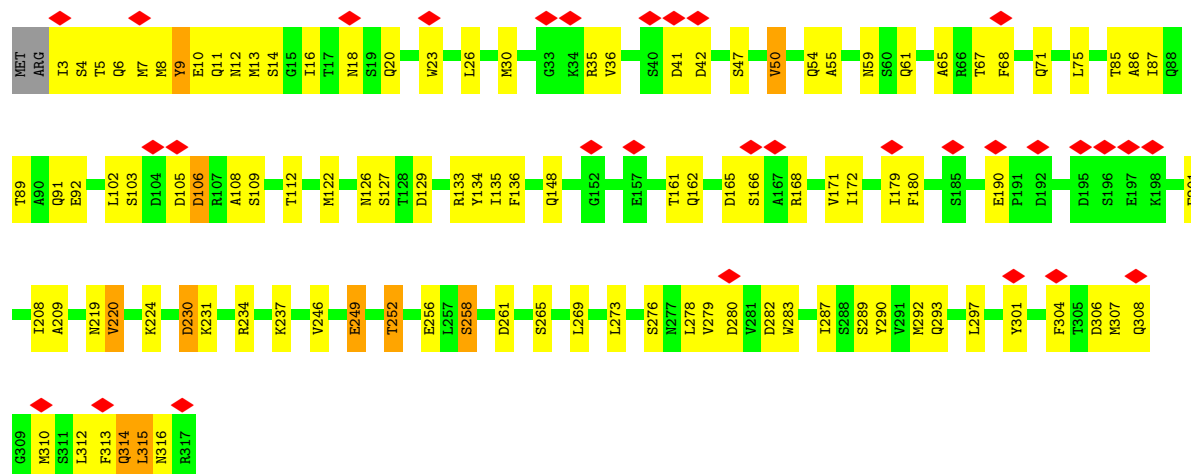
• Molecule 3: Flagellar hook-associated protein

Chain U: 6% 72% 26%

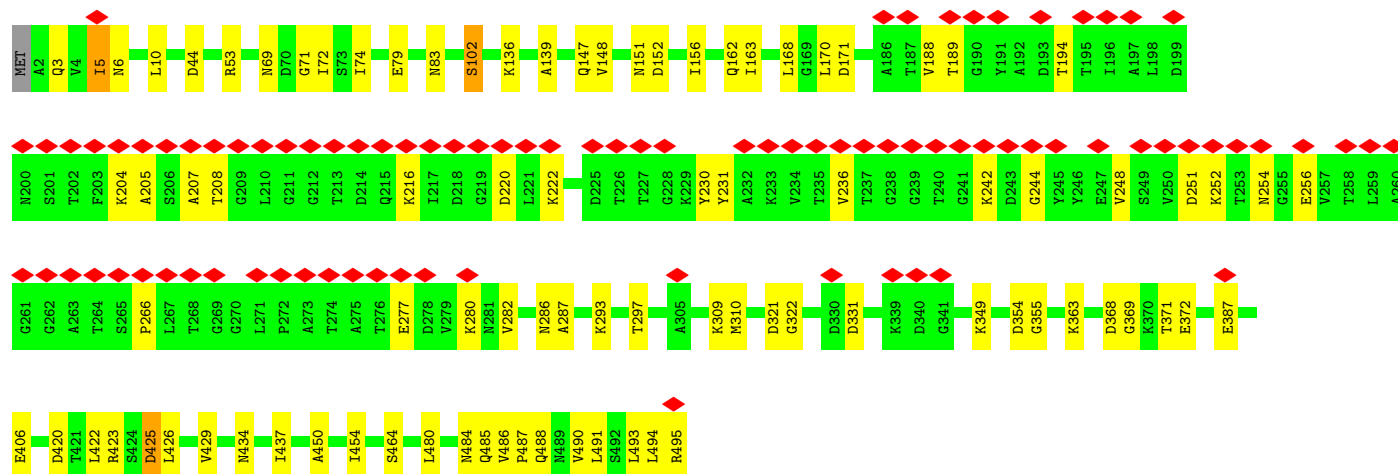
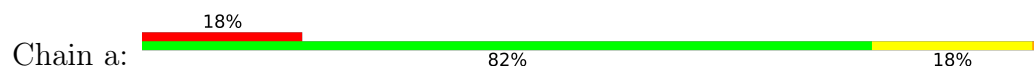


• Molecule 3: Flagellar hook-associated protein

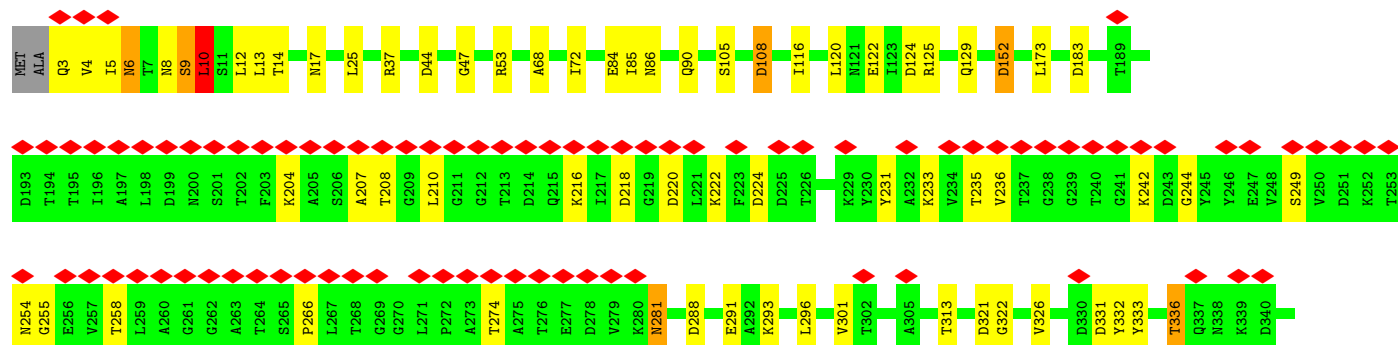
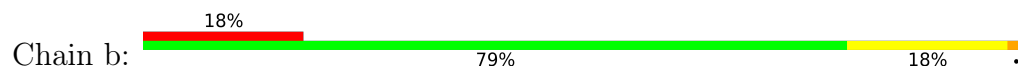
Chain V: 10% 66% 31%



• Molecule 4: Flagellin

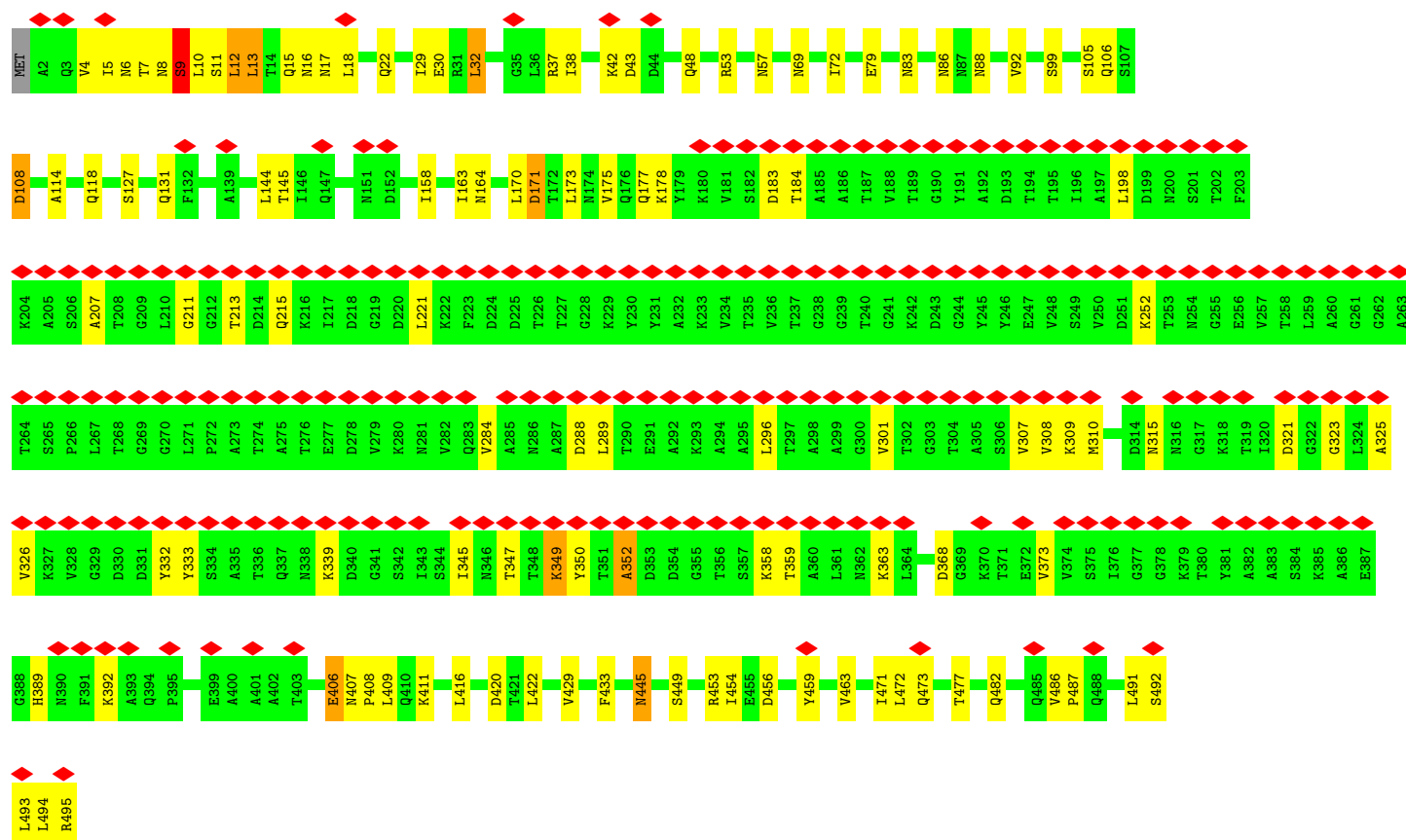
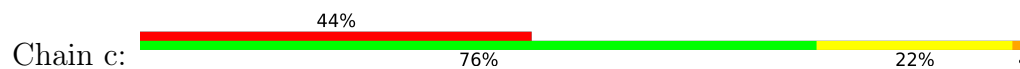


• Molecule 4: Flagellin

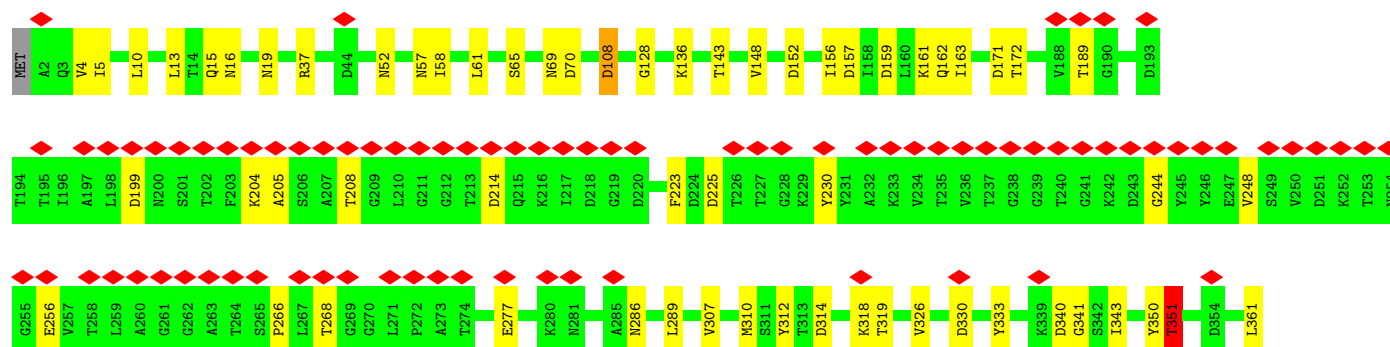
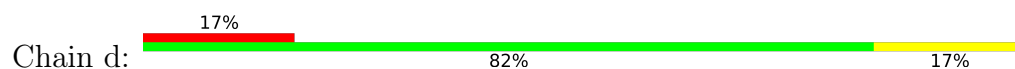




• Molecule 4: Flagellin

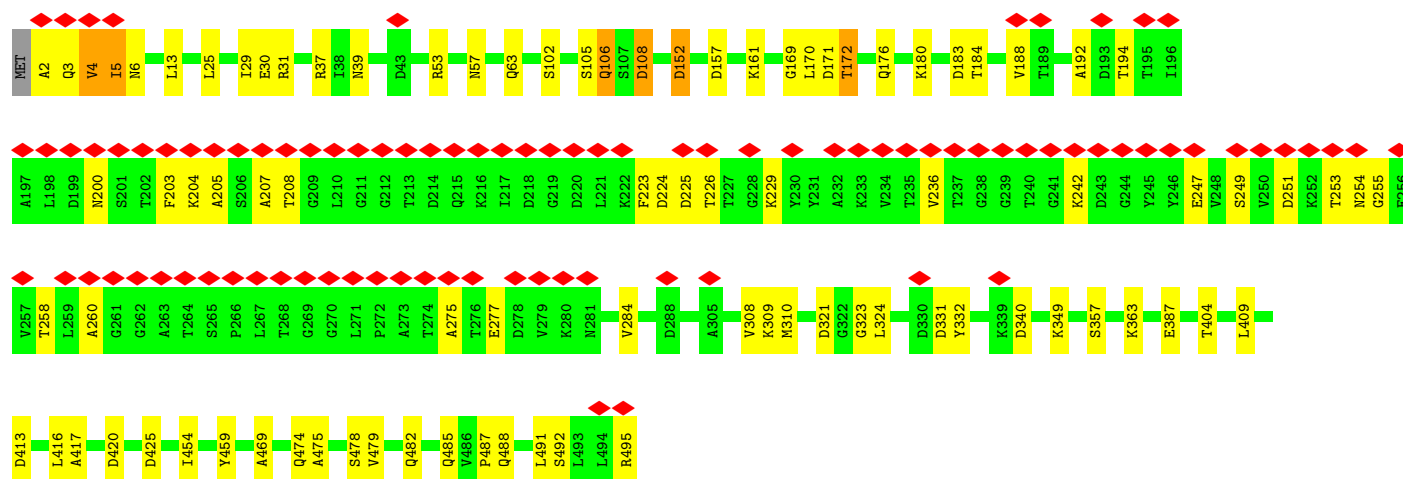
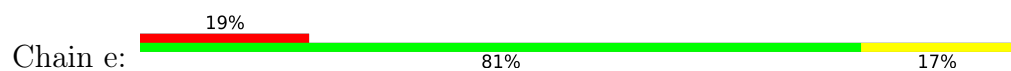


• Molecule 4: Flagellin

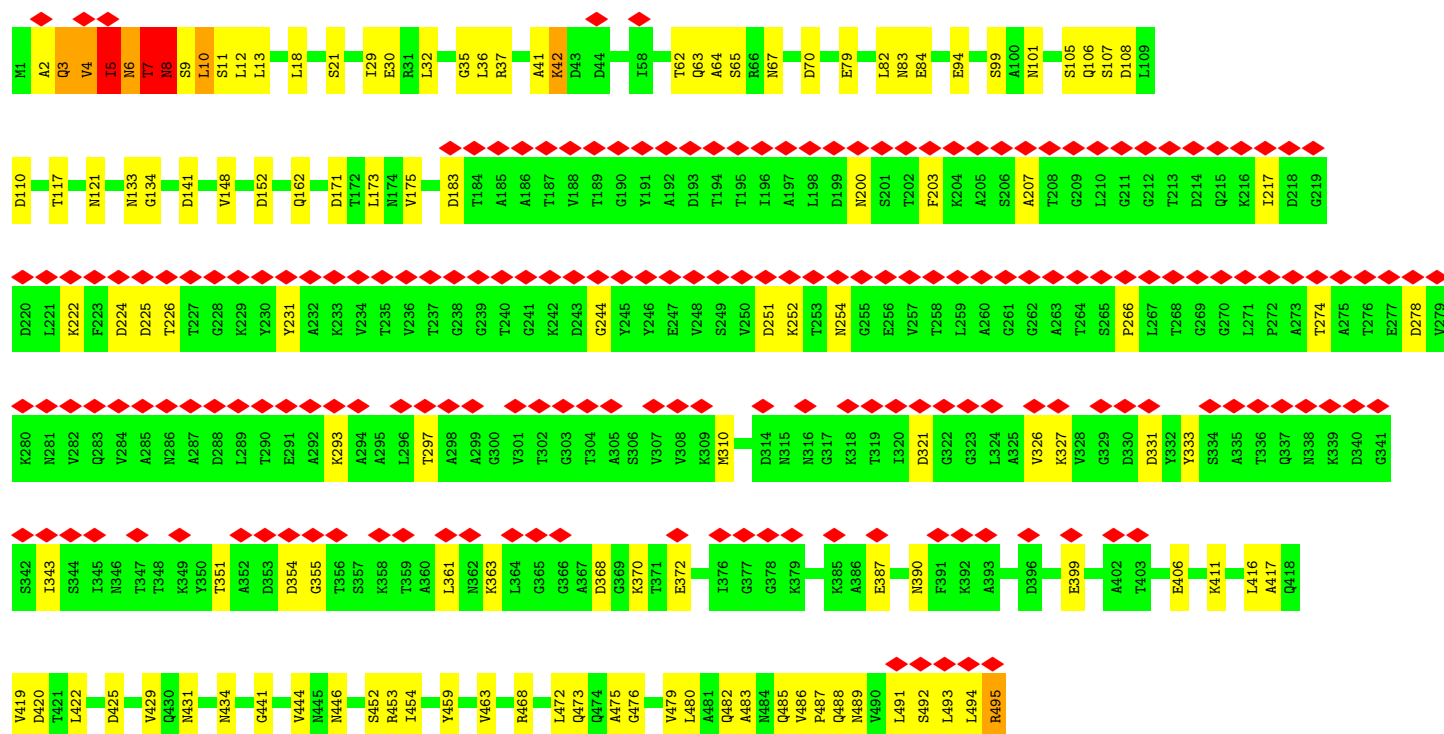
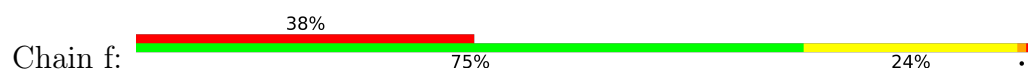




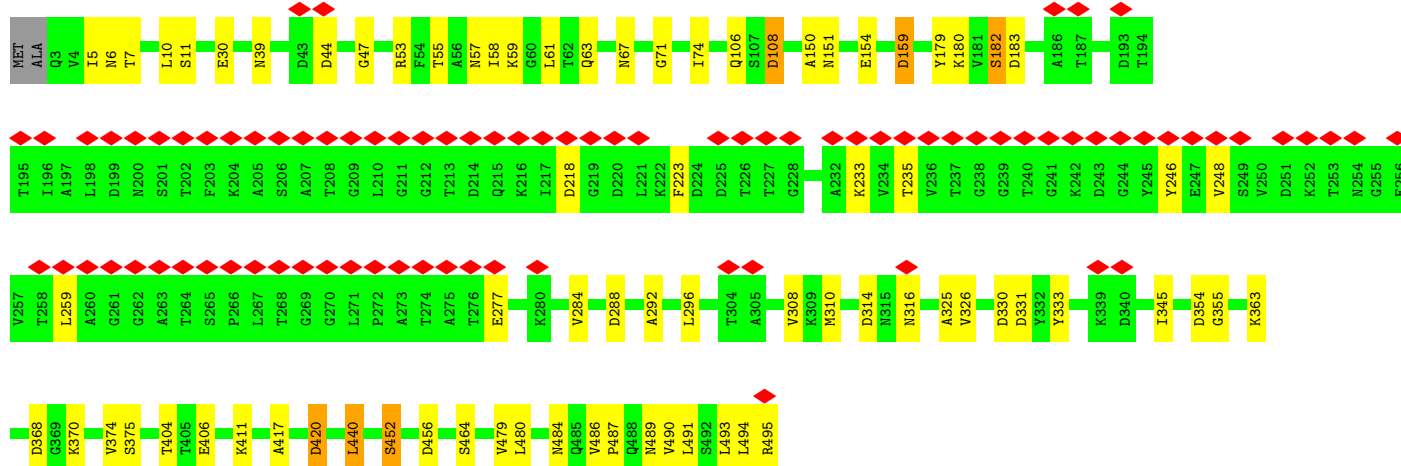
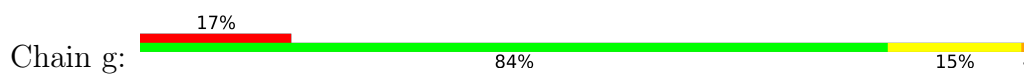
• Molecule 4: Flagellin



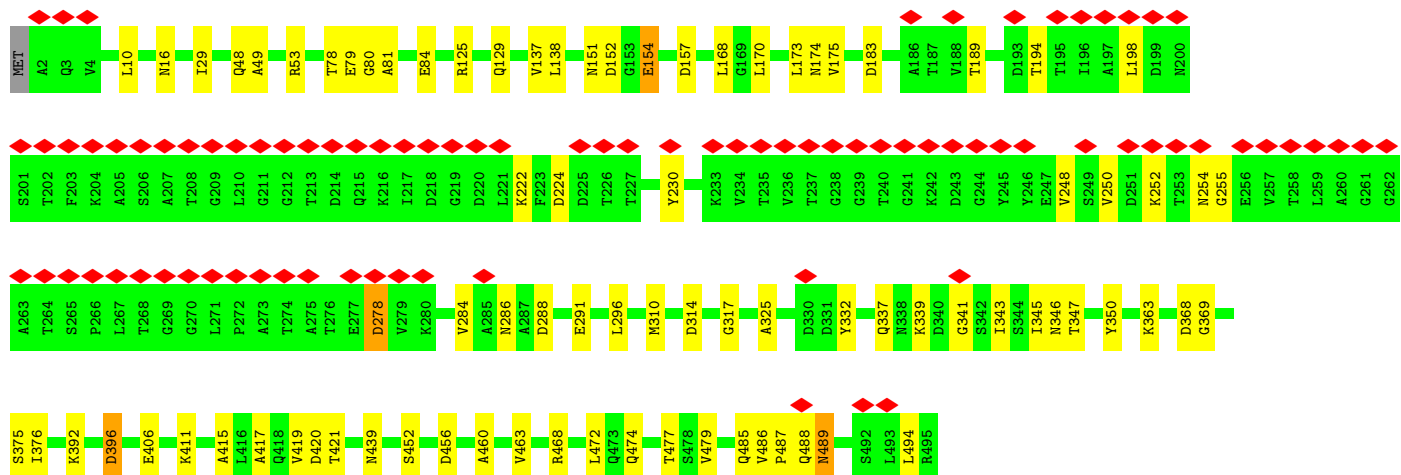
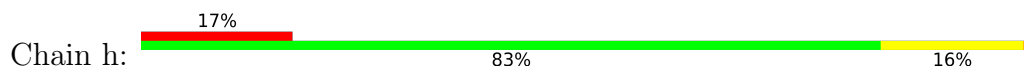
• Molecule 4: Flagellin



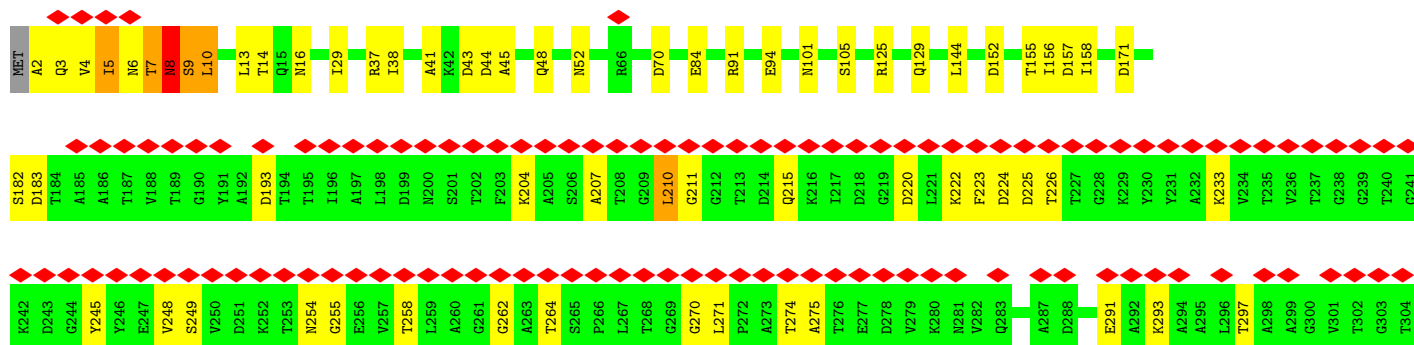
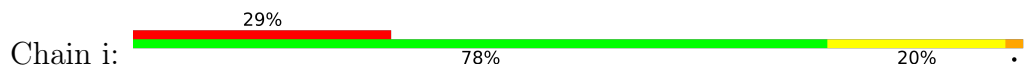
• Molecule 4: Flagellin

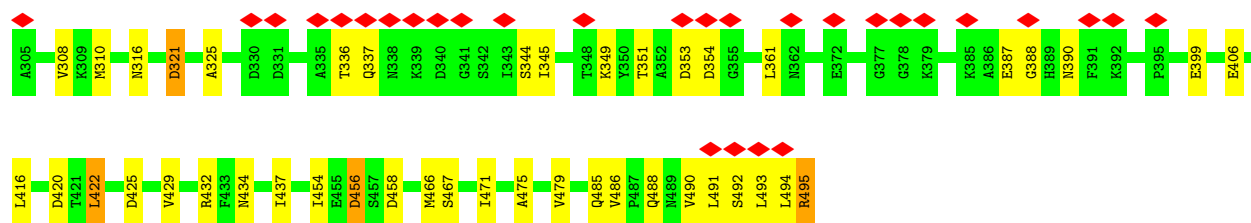


• Molecule 4: Flagellin

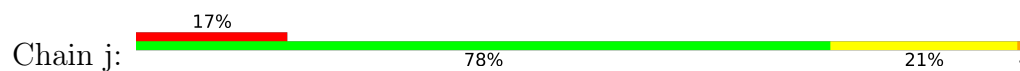


• Molecule 4: Flagellin

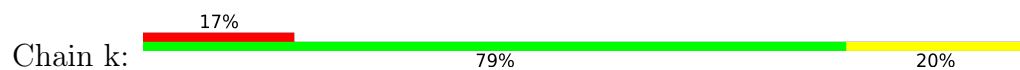


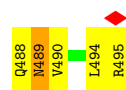


• Molecule 4: Flagellin

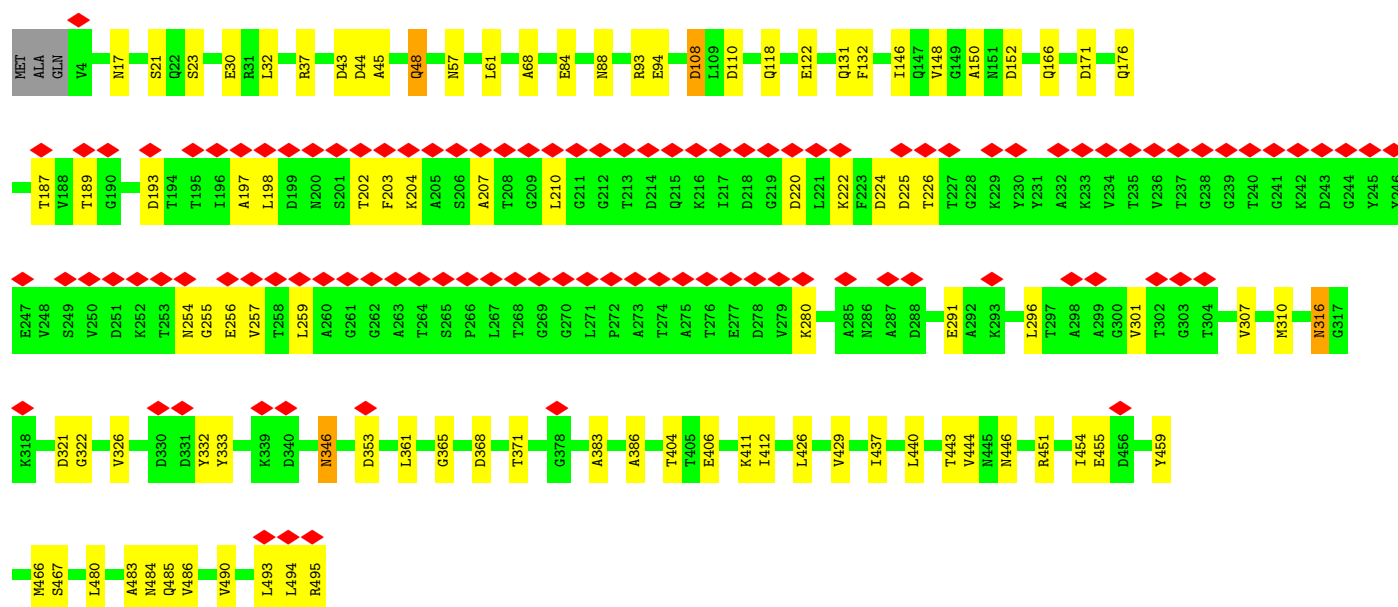
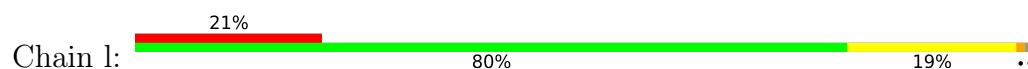


• Molecule 4: Flagellin

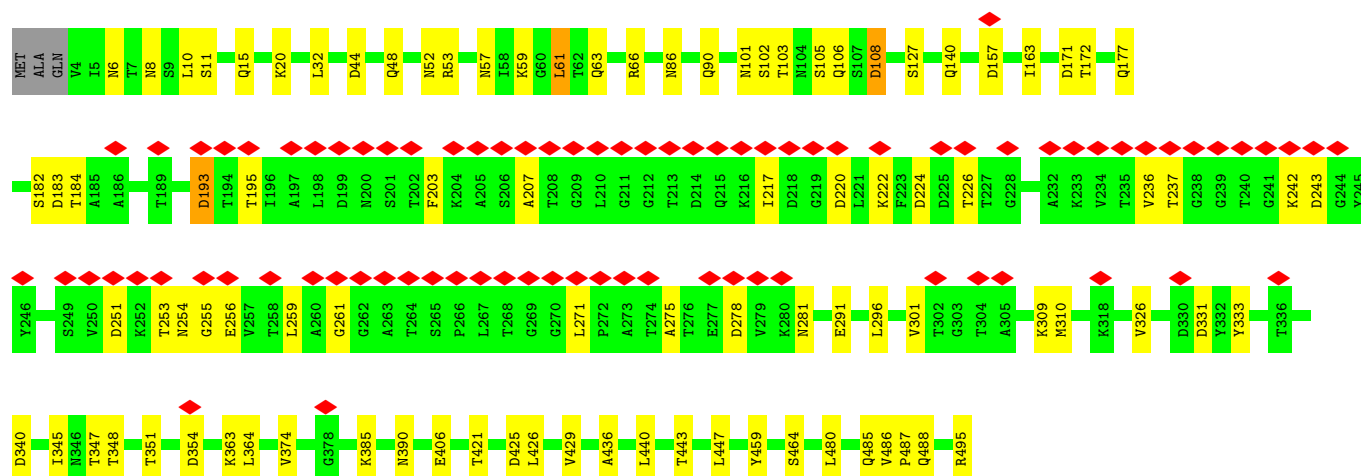
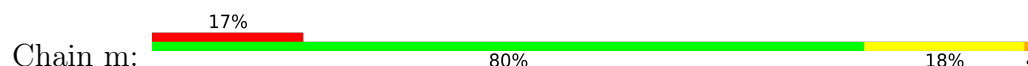




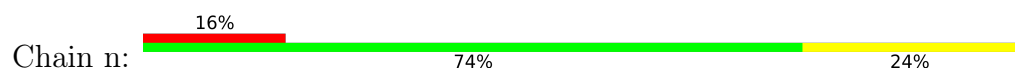
• Molecule 4: Flagellin

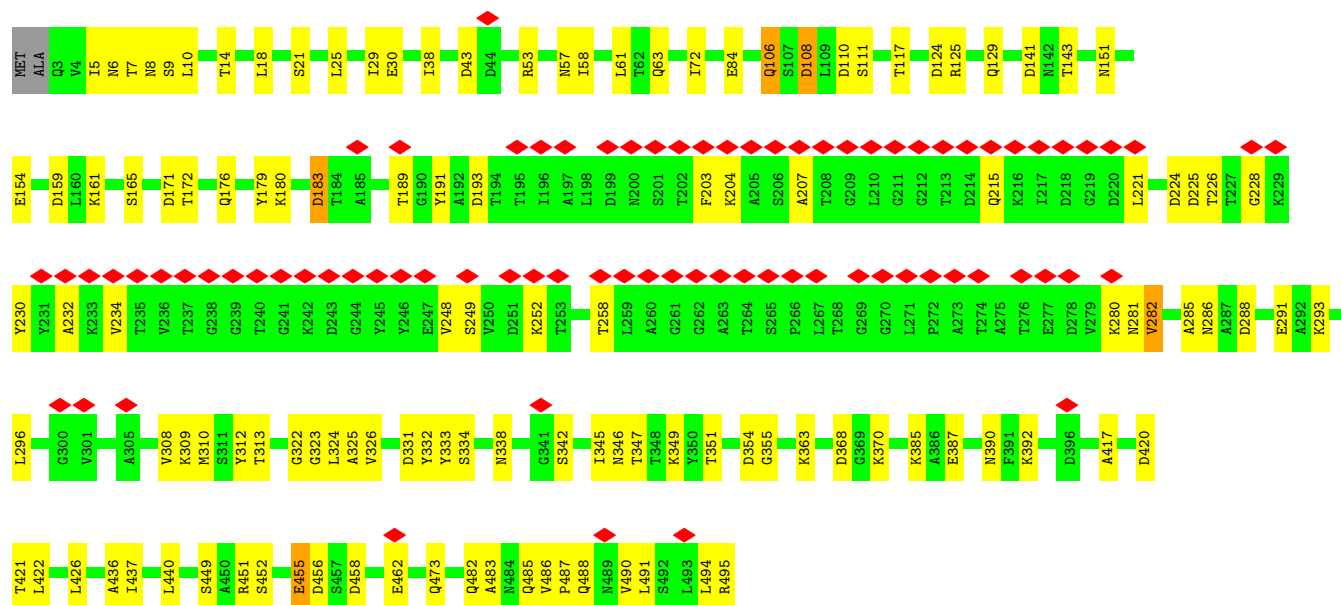


• Molecule 4: Flagellin

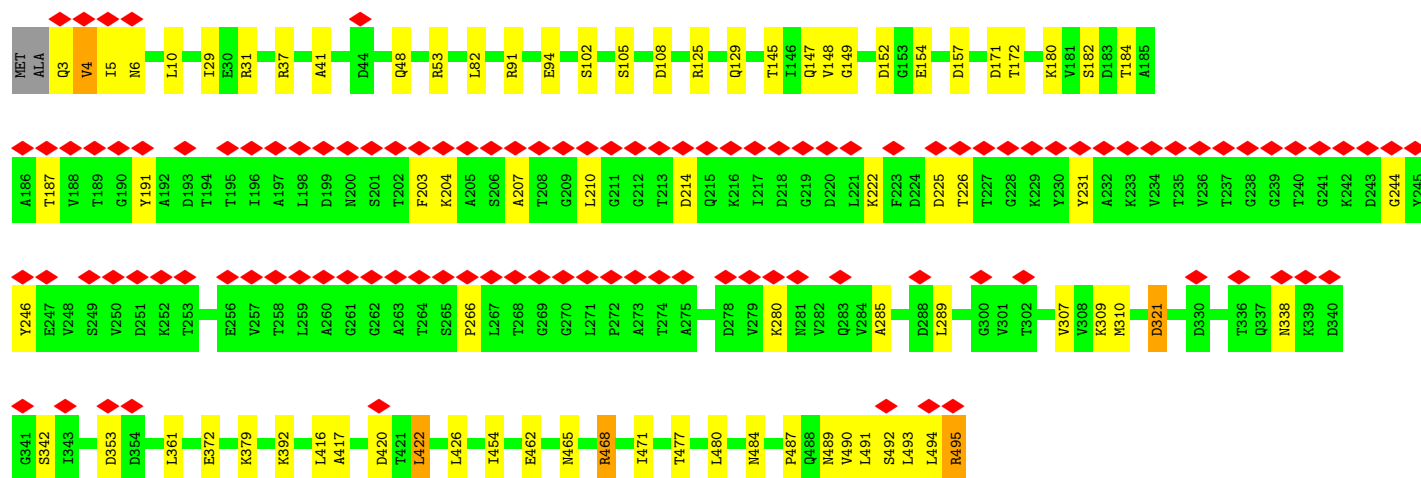
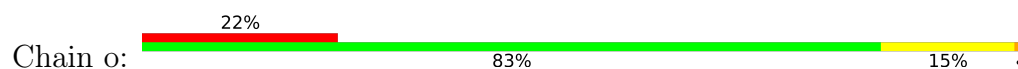


• Molecule 4: Flagellin





• Molecule 4: Flagellin



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	65561	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	43	Depositor
Minimum defocus (nm)	900	Depositor
Maximum defocus (nm)	2700	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.721	Depositor
Minimum map value	-0.376	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.039	Depositor
Recommended contour level	0.18	Depositor
Map size ($\text{\AA}$)	539.0, 539.0, 539.0	wwPDB
Map dimensions	500, 500, 500	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.078, 1.078, 1.078	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	1	0.23	0/3011	0.46	0/4100
1	2	0.19	0/3011	0.47	0/4100
1	3	0.19	0/3011	0.47	0/4100
1	4	0.28	0/3011	0.55	2/4100 (0.0%)
1	5	0.25	0/3011	0.54	4/4100 (0.1%)
1	6	0.25	0/3011	0.52	1/4100 (0.0%)
1	7	0.25	0/3011	0.60	2/4100 (0.0%)
1	8	0.20	0/3011	0.48	1/4100 (0.0%)
1	9	0.17	0/3011	0.45	0/4100
1	w	0.29	0/3011	0.60	5/4100 (0.1%)
1	x	0.23	0/3011	0.49	2/4100 (0.0%)
1	y	0.22	0/3011	0.48	2/4100 (0.0%)
1	z	0.25	0/3011	0.52	1/4100 (0.0%)
2	A	0.29	0/4191	0.51	2/5692 (0.0%)
2	B	0.30	0/4191	0.51	2/5692 (0.0%)
2	C	0.26	0/4182	0.52	2/5680 (0.0%)
2	D	0.24	0/4191	0.49	0/5692
2	E	0.31	0/4175	0.52	3/5671 (0.1%)
2	F	0.24	0/4183	0.47	0/5682
2	G	0.29	0/4183	0.52	3/5682 (0.1%)
2	H	0.31	0/4183	0.48	0/5682
2	I	0.29	0/4191	0.53	4/5692 (0.1%)
2	J	0.30	1/4191 (0.0%)	0.57	6/5692 (0.1%)
2	K	0.27	0/4191	0.51	0/5692
3	L	0.24	0/2321	0.46	0/3142
3	M	0.26	0/2370	0.49	0/3208
3	N	0.30	0/2383	0.50	1/3225 (0.0%)
3	O	0.26	0/2356	0.49	0/3189
3	P	0.29	0/2327	0.48	0/3151
3	Q	0.31	0/2314	0.50	0/3132
3	R	0.27	0/2353	0.45	0/3185
3	S	0.31	0/2376	0.53	1/3215 (0.0%)
3	T	0.25	0/2389	0.46	0/3233
3	U	0.30	0/2405	0.46	0/3254

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
3	V	0.37	0/2397	0.58	2/3244 (0.1%)
4	a	0.24	0/3638	0.40	0/4938
4	b	0.29	0/3633	0.46	3/4931 (0.1%)
4	c	0.33	1/3638 (0.0%)	0.53	4/4938 (0.1%)
4	d	0.27	1/3638 (0.0%)	0.44	1/4938 (0.0%)
4	e	0.23	0/3638	0.42	1/4938 (0.0%)
4	f	0.31	0/3646	0.56	7/4948 (0.1%)
4	g	0.21	0/3633	0.37	0/4931
4	h	0.23	0/3638	0.43	0/4938
4	i	0.31	0/3638	0.46	2/4938 (0.0%)
4	j	0.22	0/3633	0.41	0/4931
4	k	0.22	0/3638	0.41	0/4938
4	l	0.23	0/3624	0.42	0/4919
4	m	0.25	0/3624	0.40	0/4919
4	n	0.24	0/3633	0.44	0/4931
4	o	0.21	0/3633	0.40	0/4931
All	All	0.26	3/165711 (0.0%)	0.49	64/225034 (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	6	0	1

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	c	6	ASN	C-N	-8.74	1.21	1.33
4	d	407	ASN	C-O	-7.90	1.20	1.23
2	J	237	GLN	CD-NE2	-6.19	1.20	1.33

All (64) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	f	4	VAL	N-CA-C	-12.68	94.27	113.16
4	c	43	ASP	N-CA-C	-11.88	98.04	111.82
4	f	7	THR	N-CA-C	-10.89	96.74	111.54
2	E	389	ALA	N-CA-C	-10.34	100.24	112.86
4	b	9	SER	N-CA-C	-9.41	101.02	111.28
2	B	301	LEU	N-CA-C	-9.19	101.14	111.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	z	166	SER	N-CA-C	-9.13	101.33	111.28
3	V	5	THR	N-CA-C	-9.11	101.33	111.07
4	c	352	ALA	N-CA-C	8.14	120.42	110.41
2	J	272	GLU	N-CA-C	8.08	121.66	107.61
4	f	6	ASN	N-CA-C	-7.84	98.61	110.14
1	y	291	SER	N-CA-C	7.69	118.14	108.45
2	A	56	ASN	N-CA-C	-7.62	103.96	112.57
1	y	288	ASP	N-CA-C	-7.58	99.26	110.48
1	7	295	ASN	N-CA-C	7.57	120.90	107.80
2	J	271	PRO	N-CA-C	7.47	127.86	112.47
1	4	158	LEU	N-CA-C	7.18	120.59	108.02
1	4	159	ASN	N-CA-C	-6.94	94.93	107.98
2	E	307	ASP	N-CA-C	6.89	118.59	111.14
2	G	306	ALA	N-CA-C	6.72	118.26	111.07
1	7	296	ASN	N-CA-C	6.64	124.95	110.80
2	J	269	GLU	N-CA-C	6.60	119.80	110.23
1	5	45	GLY	N-CA-C	-6.54	97.69	113.18
2	E	5	ILE	N-CA-C	-6.51	103.98	110.62
2	B	300	GLN	N-CA-C	6.21	119.25	111.24
1	w	163	PRO	N-CA-C	-6.18	106.13	113.86
4	d	351	THR	N-CA-C	-6.10	102.44	110.43
2	G	307	ASP	N-CA-C	-6.05	104.69	111.28
1	w	249	GLY	N-CA-C	-5.98	104.24	112.25
4	b	6	ASN	N-CA-C	-5.98	104.67	111.07
4	f	3	GLN	N-CA-C	5.92	119.14	108.48
4	i	7	THR	N-CA-C	-5.84	106.00	113.01
1	5	52	VAL	N-CA-C	-5.82	97.23	109.34
4	c	9	SER	N-CA-C	-5.71	104.26	111.11
2	I	422	VAL	N-CA-C	-5.67	107.14	111.62
2	J	270	ILE	N-CA-C	-5.63	96.73	108.88
4	b	10	LEU	N-CA-C	-5.60	104.18	111.02
2	I	2	SER	N-CA-C	-5.58	106.32	113.01
2	J	463	GLN	N-CA-C	-5.56	106.45	113.18
1	5	176	ASP	N-CA-C	-5.52	107.80	114.75
2	A	310	ASN	N-CA-C	-5.51	105.17	111.07
1	6	328	SER	N-CA-C	-5.50	105.01	112.26
2	C	307	ASP	N-CA-C	5.44	117.02	111.14
4	f	8	ASN	N-CA-C	-5.41	99.27	110.80
2	I	310	ASN	N-CA-C	-5.40	104.79	111.33
2	C	45	ASN	N-CA-C	-5.40	101.23	108.19
4	f	5	ILE	N-CA-C	-5.40	106.59	112.80
3	N	308	GLN	N-CA-C	-5.36	105.34	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	S	282	ASP	N-CA-C	-5.35	100.07	108.63
2	I	3	SER	N-CA-C	-5.31	105.90	112.38
1	w	133	ASN	CA-C-N	-5.29	114.34	119.90
1	w	133	ASN	C-N-CA	-5.29	114.34	119.90
1	8	45	GLY	N-CA-C	-5.25	108.45	114.69
4	c	7	THR	N-CA-C	-5.19	104.48	111.54
4	e	459	TYR	CA-CB-CG	5.19	123.23	113.90
1	w	251	ILE	N-CA-C	-5.13	108.50	113.53
1	x	81	GLY	N-CA-C	5.08	118.69	110.87
4	f	11	SER	N-CA-C	5.07	116.49	111.07
2	J	271	PRO	CB-CA-C	-5.05	103.23	111.56
1	5	224	THR	N-CA-C	5.04	114.70	108.19
1	x	330	GLY	N-CA-C	5.04	125.13	113.18
3	V	314	GLN	N-CA-C	-5.04	105.31	111.75
2	G	38	THR	N-CA-C	5.02	116.47	108.79
4	i	8	ASN	N-CA-C	-5.01	100.14	110.80

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	6	168	THR	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1	2967	2865	2864	128	0
1	2	2967	2865	2864	93	0
1	3	2967	2865	2864	144	0
1	4	2967	2865	2864	124	0
1	5	2967	2865	2864	164	0
1	6	2967	2865	2864	131	0
1	7	2967	2865	2864	174	0
1	8	2967	2865	2864	117	0
1	9	2967	2865	2864	94	0
1	w	2967	2865	2864	206	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	x	2967	2865	2864	125	0
1	y	2967	2865	2864	118	0
1	z	2967	2865	2864	134	0
2	A	4145	4056	4058	226	0
2	B	4145	4056	4058	202	0
2	C	4136	4048	4049	197	0
2	D	4145	4056	4058	147	0
2	E	4129	4034	4035	188	0
2	F	4137	4045	4046	156	0
2	G	4137	4045	4046	156	0
2	H	4137	4041	4046	215	0
2	I	4145	4056	4058	209	0
2	J	4145	4056	4058	183	0
2	K	4145	4056	4058	191	0
3	L	2296	2247	2246	97	0
3	M	2344	2296	2295	143	0
3	N	2357	2309	2309	91	0
3	O	2330	2282	2281	139	0
3	P	2302	2254	2253	94	0
3	Q	2289	2240	2239	143	0
3	R	2327	2277	2276	106	0
3	S	2350	2303	2302	117	0
3	T	2363	2315	2314	102	0
3	U	2379	2302	2337	84	0
3	V	2371	2326	2325	135	0
4	a	3615	3574	3573	63	0
4	b	3610	3541	3568	94	0
4	c	3615	3552	3573	112	0
4	d	3615	3574	3573	66	0
4	e	3615	3574	3573	89	0
4	f	3623	3541	3585	160	0
4	g	3610	3569	3568	69	0
4	h	3615	3574	3573	77	0
4	i	3615	3561	3573	123	0
4	j	3610	3569	3568	89	0
4	k	3615	3574	3573	82	0
4	l	3601	3561	3560	77	0
4	m	3601	3561	3560	75	0
4	n	3610	3569	3568	123	0
4	o	3610	3569	3568	59	0
All	All	164005	160408	160535	5860	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 18.

All (5860) 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:w:168:THR:HG21	1:w:176:ASP:CG	1.24	1.55
1:w:168:THR:CG2	1:w:176:ASP:CG	2.06	1.28
1:w:168:THR:HG21	1:w:176:ASP:OD2	1.40	1.21
2:B:169:ILE:HD13	2:B:209:LEU:HD11	1.26	1.16
1:w:165:PRO:HB2	1:w:168:THR:CB	1.79	1.10
1:w:168:THR:CG2	1:w:176:ASP:OD1	1.98	1.09
1:w:165:PRO:HB2	1:w:168:THR:HB	1.15	1.07
1:w:168:THR:CG2	1:w:176:ASP:OD2	1.97	1.06
2:E:156:LYS:HE2	2:E:156:LYS:HA	1.38	1.04
4:f:3:GLN:CG	4:f:5:ILE:HG22	1.86	1.04
2:D:138:GLU:OE1	2:D:426:VAL:HG21	1.55	1.04
1:8:43:PHE:CE2	1:8:48:VAL:HG22	1.92	1.02
2:F:26:ILE:HD11	3:S:299:ALA:HB1	1.38	1.02
4:h:154:GLU:N	4:h:154:GLU:OE2	1.91	1.02
2:I:469:GLY:O	2:I:472:LYS:N	1.92	1.02
2:G:469:GLY:O	2:G:472:LYS:N	1.92	1.01
3:T:13:MET:HE2	3:T:17:THR:HG23	1.44	0.99
2:D:9:MET:HA	2:D:9:MET:HE3	1.45	0.99
3:Q:280:ASP:OD2	4:f:3:GLN:HA	1.64	0.98
1:w:168:THR:O	1:w:177:SER:HB3	1.61	0.98
4:f:3:GLN:HB3	4:f:6:ASN:N	1.77	0.98
1:1:166:SER:OG	1:1:176:ASP:OD2	1.81	0.98
3:R:306:ASP:OD2	3:S:290:TYR:OH	1.82	0.97
2:E:229:MET:SD	2:E:231:ASN:OD1	2.22	0.97
1:1:1:MET:SD	1:1:3:PHE:HB3	2.04	0.97
1:w:144:MET:HE2	1:w:144:MET:HA	1.47	0.97
1:z:375:MET:SD	1:z:379:GLN:HG3	2.05	0.96
3:V:287:ILE:HG21	4:n:494:LEU:HD11	1.44	0.96
1:7:330:GLY:N	2:I:45:ASN:O	1.99	0.95
1:w:168:THR:HG21	1:w:176:ASP:OD1	1.62	0.95
2:J:490:SER:OG	3:M:40:SER:O	1.85	0.95
3:Q:282:ASP:OD1	4:f:2:ALA:HA	1.65	0.94
1:w:165:PRO:CB	1:w:168:THR:HB	1.97	0.94
4:c:392:LYS:O	4:c:392:LYS:NZ	2.01	0.94
3:Q:273:LEU:HD22	4:f:5:ILE:HD12	1.48	0.93
4:o:372:GLU:N	4:o:372:GLU:OE2	2.01	0.93
2:B:169:ILE:CD1	2:B:209:LEU:HD11	1.98	0.93
4:f:3:GLN:HG3	4:f:5:ILE:HG22	1.50	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:R:163:GLN:OE1	3:R:169:THR:OG1	1.88	0.91
3:R:76:GLU:OE1	3:R:76:GLU:N	2.04	0.91
1:1:1:MET:CE	1:1:3:PHE:HB3	2.01	0.91
1:3:60:ASP:OD1	1:3:61:PHE:N	2.04	0.91
4:b:296:LEU:HD22	4:b:301:VAL:HG11	1.51	0.91
4:j:310:MET:HA	4:j:310:MET:HE3	1.50	0.91
1:7:195:ASP:OD1	1:7:216:SER:OG	1.88	0.91
3:V:30:MET:HE2	3:V:30:MET:HA	1.52	0.90
1:w:86:VAL:O	1:w:114:MET:SD	2.30	0.90
2:H:216:GLU:OE2	2:H:218:SER:OG	1.89	0.89
4:f:494:LEU:O	4:f:495:ARG:NE	2.05	0.89
2:B:335:VAL:HG22	2:B:414:LEU:HD13	1.52	0.89
4:f:3:GLN:HB2	4:f:6:ASN:ND2	1.87	0.89
2:A:19:LEU:HD13	2:K:545:LEU:HD21	1.55	0.89
1:z:41:ASP:O	1:z:53:LYS:NZ	2.06	0.89
1:w:168:THR:HG22	1:w:176:ASP:OD1	1.73	0.89
1:w:147:LYS:NZ	1:w:282:ASN:O	2.06	0.88
3:L:103:SER:OG	3:L:106:ASP:OD1	1.90	0.88
1:8:34:SER:OG	1:8:60:ASP:OD2	1.92	0.88
2:F:531:TYR:OH	2:G:27:ASN:O	1.92	0.88
3:O:91:GLN:NE2	3:O:233:ASN:OD1	2.07	0.87
3:V:67:THR:O	3:V:71:GLN:OE1	1.92	0.87
4:c:407:ASN:O	4:c:411:LYS:NZ	2.08	0.87
2:H:252:ASP:OD1	2:H:254:THR:OG1	1.92	0.87
3:T:24:MET:HE1	4:i:4:VAL:HG23	1.57	0.87
3:V:148:GLN:N	3:V:148:GLN:OE1	2.08	0.87
1:w:320:PHE:CD2	1:w:326:LEU:HD21	2.11	0.86
4:a:406:GLU:N	4:a:406:GLU:OE2	2.09	0.86
3:Q:276:SER:CB	4:f:3:GLN:HG3	2.04	0.86
4:g:310:MET:HA	4:g:310:MET:HE3	1.57	0.86
2:D:548:ALA:O	2:D:551:ASN:ND2	2.09	0.86
1:7:196:MET:HE1	1:7:198:VAL:HG22	1.55	0.86
1:2:163:PRO:O	1:2:179:ASN:ND2	2.09	0.85
4:n:310:MET:HE2	4:n:310:MET:N	1.91	0.85
3:N:216:GLU:OE1	3:N:216:GLU:N	2.09	0.85
3:S:103:SER:OG	3:S:105:ASP:OD1	1.94	0.85
4:l:166:GLN:OE1	4:l:166:GLN:N	2.09	0.85
3:Q:36:VAL:CG1	3:Q:279:VAL:HG13	2.06	0.85
1:y:202:LYS:HD2	1:y:208:TRP:CH2	2.11	0.85
2:K:441:LYS:HD2	2:K:441:LYS:O	1.76	0.85
1:1:103:ASP:OD1	1:1:107:ASN:N	2.10	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:447:ASP:OD1	3:P:158:LYS:NZ	2.09	0.85
3:P:302:LYS:O	3:P:302:LYS:NZ	2.09	0.85
2:H:458:ALA:HA	2:H:461:ASP:OD2	1.77	0.85
2:A:372:TRP:CZ2	2:A:402:VAL:HG12	2.12	0.84
1:5:26:ASN:OD1	1:5:29:THR:OG1	1.96	0.84
4:h:406:GLU:OE1	4:h:406:GLU:N	2.09	0.84
4:b:10:LEU:HD11	4:c:29:ILE:HG21	1.59	0.84
2:E:521:GLU:N	2:E:521:GLU:OE1	2.09	0.84
4:k:8:ASN:O	4:k:11:SER:OG	1.95	0.84
4:f:3:GLN:HG2	4:f:5:ILE:HG22	1.57	0.84
2:E:125:GLU:N	2:E:125:GLU:OE2	2.11	0.84
4:k:406:GLU:OE1	4:k:406:GLU:N	2.10	0.84
1:9:186:VAL:HG22	1:9:196:MET:CE	2.07	0.84
2:H:104:SER:O	2:H:478:TYR:OH	1.95	0.84
2:H:376:ARG:NH2	2:H:396:ASP:OD2	2.11	0.83
1:4:16:ASN:O	1:4:19:VAL:HG22	1.78	0.83
1:3:309:GLU:N	1:3:309:GLU:OE2	2.10	0.83
2:I:229:MET:H	2:I:229:MET:HE2	1.43	0.83
1:3:196:MET:H	1:3:196:MET:HE2	1.43	0.83
2:E:322:ASN:OD1	2:E:323:LYS:N	2.10	0.83
1:2:186:VAL:HG22	1:2:196:MET:HE3	1.61	0.83
2:A:452:ASP:N	3:O:139:TYR:OH	2.11	0.83
1:8:393:ASP:OD1	1:8:397:ASN:ND2	2.12	0.83
2:B:141:VAL:HG22	2:B:424:MET:HE1	1.60	0.83
2:J:521:GLU:N	2:J:521:GLU:OE2	2.12	0.83
2:K:359:GLN:NE2	2:K:396:ASP:OD2	2.12	0.83
4:i:48:GLN:OE1	4:i:52:ASN:ND2	2.12	0.83
1:8:386:ALA:O	1:8:389:ILE:HG22	1.79	0.82
2:G:520:GLU:OE1	2:G:524:ASN:ND2	2.12	0.82
4:b:220:ASP:O	4:b:222:LYS:NZ	2.12	0.82
1:w:169:PRO:HG2	1:w:170:PHE:CD2	2.14	0.82
3:Q:276:SER:HB3	4:f:3:GLN:HG3	1.60	0.82
3:P:20:GLN:HE22	3:P:297:LEU:HD11	1.43	0.82
3:V:35:ARG:NH2	3:V:278:LEU:O	2.11	0.82
2:E:18:ALA:O	2:E:22:VAL:HG23	1.79	0.82
3:P:13:MET:HA	3:P:13:MET:HE3	1.58	0.82
1:1:156:ILE:HG22	1:1:276:ILE:HG23	1.59	0.82
3:L:105:ASP:OD2	4:n:53:ARG:NH2	2.12	0.82
2:H:303:LEU:HD23	2:H:358:VAL:HG11	1.60	0.82
2:I:148:ASP:OD2	2:I:421:ILE:HD13	1.78	0.82
3:N:48:GLN:OE1	3:N:48:GLN:N	2.12	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:x:294:ILE:O	1:x:358:ASN:ND2	2.12	0.82
3:M:207:ALA:HB2	3:M:232:THR:HG21	1.61	0.82
1:z:1:MET:SD	1:z:5:GLN:NE2	2.53	0.82
2:G:119:THR:O	2:G:122:SER:OG	1.96	0.82
2:H:155:ASP:OD1	2:H:159:ASN:ND2	2.13	0.81
3:S:303:THR:HA	3:S:306:ASP:OD2	1.78	0.81
4:e:194:THR:CG2	4:e:284:VAL:HG13	2.10	0.81
4:f:310:MET:HE2	4:f:310:MET:HA	1.62	0.81
1:8:389:ILE:HG21	1:w:402:LEU:HD22	1.62	0.81
2:G:540:GLN:O	2:G:543:ASN:OD1	1.99	0.81
2:J:439:GLU:N	2:J:439:GLU:OE2	2.13	0.81
3:T:8:MET:O	3:T:12:ASN:ND2	2.13	0.81
1:x:289:LEU:HD12	1:x:304:TYR:CD1	2.16	0.81
1:4:104:GLU:N	1:4:104:GLU:OE2	2.14	0.81
2:H:9:MET:HE2	2:H:9:MET:HA	1.62	0.81
2:A:310:ASN:HD21	2:A:328:PHE:HB2	1.46	0.80
2:H:475:ASN:OD1	2:H:476:ASP:N	2.14	0.80
2:C:35:THR:OG1	2:C:200:ASP:OD2	1.98	0.80
4:j:462:GLU:N	4:j:462:GLU:OE2	2.15	0.80
1:1:399:LEU:HD21	1:z:386:ALA:HB1	1.63	0.80
1:3:186:VAL:HG22	1:3:196:MET:CE	2.10	0.80
3:R:103:SER:OG	3:R:105:ASP:OD1	1.98	0.80
2:D:1:MET:SD	2:D:2:SER:N	2.54	0.80
2:G:330:ILE:N	2:G:423:ASP:OD2	2.15	0.80
3:L:129:ASP:OD1	3:L:133:ARG:N	2.14	0.80
1:z:104:GLU:N	1:z:104:GLU:OE1	2.14	0.80
1:3:186:VAL:HG13	1:3:196:MET:HE3	1.61	0.80
1:x:160:SER:OG	1:x:270:ASN:O	1.98	0.80
3:M:216:GLU:OE1	3:M:217:GLY:N	2.15	0.80
1:6:186:VAL:HG13	1:6:196:MET:HE3	1.64	0.80
2:E:118:GLN:HA	2:E:121:VAL:HG12	1.64	0.80
3:Q:35:ARG:NH2	3:Q:42:ASP:OD2	2.14	0.80
4:a:310:MET:HA	4:a:310:MET:HE3	1.63	0.80
2:D:141:VAL:HG22	2:D:424:MET:HE2	1.63	0.80
3:M:148:GLN:OE1	3:M:148:GLN:N	2.14	0.80
2:B:229:MET:HE2	2:B:229:MET:HA	1.62	0.80
2:K:237:GLN:N	2:K:240:THR:OG1	2.14	0.80
4:e:4:VAL:HG12	4:e:4:VAL:O	1.82	0.80
2:C:156:LYS:HA	2:C:156:LYS:HE3	1.63	0.79
4:d:37:ARG:NH2	4:d:454:ILE:O	2.15	0.79
1:8:255:THR:HG23	1:9:234:GLU:HB2	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:T:24:MET:O	3:T:27:GLY:N	2.16	0.79
1:7:27:SER:HA	1:7:366:VAL:HG21	1.64	0.79
4:f:101:ASN:OD1	4:g:67:ASN:ND2	2.15	0.79
1:w:159:ASN:OD1	1:w:272:GLY:N	2.16	0.79
1:z:375:MET:SD	1:z:379:GLN:CG	2.71	0.79
2:F:201:GLN:OE1	2:F:201:GLN:N	2.15	0.79
2:J:540:GLN:HA	2:J:543:ASN:OD1	1.82	0.79
1:y:370:LYS:HE3	1:y:370:LYS:HA	1.63	0.79
1:z:79:GLN:O	1:z:96:ARG:NH2	2.15	0.79
2:J:526:GLN:O	2:J:530:GLN:NE2	2.16	0.79
4:j:493:LEU:O	4:j:495:ARG:NH2	2.16	0.79
2:A:195:PRO:HB2	2:A:198:LEU:HD22	1.63	0.79
4:b:291:GLU:OE1	4:b:291:GLU:N	2.16	0.79
1:w:144:MET:SD	1:w:284:TYR:CE1	2.76	0.79
1:2:307:GLU:OE1	1:2:307:GLU:O	1.99	0.78
1:7:128:ILE:O	1:7:128:ILE:HD12	1.83	0.78
2:G:473:THR:OG1	2:G:476:ASP:OD1	2.01	0.78
1:5:371:GLU:N	1:5:371:GLU:OE2	2.17	0.78
1:7:111:MET:N	1:7:111:MET:HE2	1.98	0.78
2:B:304:ALA:CB	2:B:468:VAL:HG22	2.14	0.78
2:G:19:LEU:HD22	2:G:525:LEU:HD12	1.65	0.78
1:3:191:GLY:O	1:4:270:ASN:ND2	2.16	0.78
1:6:164:VAL:HG13	1:6:203:THR:HG22	1.64	0.78
2:G:16:GLN:OE1	2:G:20:ASN:ND2	2.17	0.78
2:K:273:LYS:O	2:K:273:LYS:NZ	2.14	0.78
1:6:252:ASN:ND2	1:6:252:ASN:O	2.17	0.78
2:K:121:VAL:HG11	2:K:457:GLN:OE1	1.84	0.78
3:Q:7:MET:N	3:Q:7:MET:SD	2.56	0.78
2:B:45:ASN:ND2	2:B:46:SER:O	2.17	0.78
2:J:120:LEU:HD13	2:J:436:MET:HE3	1.65	0.78
4:d:289:LEU:HD21	4:d:307:VAL:HG23	1.64	0.78
1:w:312:LEU:HD12	1:w:312:LEU:O	1.84	0.78
2:B:95:ILE:HA	2:B:98:LEU:HD23	1.66	0.78
2:K:80:ASN:ND2	2:K:210:ASN:O	2.17	0.78
1:2:114:MET:N	1:2:114:MET:SD	2.58	0.77
1:7:17:LEU:HD23	1:7:375:MET:HE1	1.65	0.77
1:z:130:GLN:N	1:z:130:GLN:OE1	2.18	0.77
1:5:44:ALA:O	1:5:45:GLY:C	2.27	0.77
2:K:204:GLN:O	2:K:207:SER:OG	2.01	0.77
1:6:106:ARG:O	1:6:138:THR:OG1	2.03	0.77
2:G:533:LEU:HD22	2:H:550:LEU:HD22	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:T:13:MET:O	3:T:13:MET:HE3	1.84	0.77
2:H:98:LEU:HD12	2:H:99:LEU:HD22	1.64	0.77
3:Q:103:SER:OG	3:Q:106:ASP:OD2	2.02	0.77
4:f:203:PHE:CD2	4:f:217:ILE:HD11	2.20	0.77
4:i:29:ILE:CD1	4:i:466:MET:HE2	2.15	0.77
3:Q:16:ILE:HD12	3:Q:300:SER:HB2	1.66	0.77
1:3:196:MET:HE2	1:3:196:MET:N	1.98	0.77
3:O:205:ASP:HA	3:O:208:ILE:CD1	2.14	0.77
4:i:233:LYS:HG2	4:i:245:TYR:CZ	2.19	0.77
4:e:488:GLN:OE1	4:e:488:GLN:O	2.03	0.76
4:f:62:THR:O	4:f:65:SER:OG	2.03	0.76
2:J:441:LYS:NZ	2:J:449:GLY:O	2.18	0.76
4:e:105:SER:N	4:e:108:ASP:OD2	2.19	0.76
3:N:66:ARG:NH1	3:N:165:ASP:OD2	2.18	0.76
3:O:284:ASN:OD1	3:O:285:SER:N	2.18	0.76
4:o:310:MET:HE2	4:o:310:MET:HA	1.66	0.76
3:O:205:ASP:HA	3:O:208:ILE:HG12	1.68	0.76
3:R:12:ASN:O	3:R:16:ILE:HG23	1.86	0.76
1:7:392:GLN:HE21	1:7:396:LEU:HD12	1.51	0.76
1:5:382:TYR:CE2	1:7:395:ILE:HG23	2.21	0.76
2:A:16:GLN:NE2	2:A:20:ASN:OD1	2.18	0.76
1:4:119:TYR:HB2	1:4:128:ILE:HD11	1.68	0.76
4:m:291:GLU:OE1	4:m:291:GLU:N	2.19	0.76
1:1:390:LYS:HB2	2:C:552:ILE:HG23	1.66	0.75
2:D:229:MET:HE2	2:D:229:MET:HA	1.68	0.75
4:f:3:GLN:HB3	4:f:6:ASN:H	1.48	0.75
1:1:66:THR:HB	2:D:47:THR:HG22	1.69	0.75
1:5:71:ARG:NH1	1:5:74:ASP:OD1	2.19	0.75
2:E:314:THR:OG1	2:E:315:LYS:NZ	2.18	0.75
2:G:434:ILE:HD12	2:G:434:ILE:O	1.87	0.75
4:b:68:ALA:HB3	4:b:437:ILE:HD11	1.67	0.75
1:w:168:THR:HG23	1:w:176:ASP:OD2	1.83	0.75
4:f:293:LYS:O	4:f:297:THR:HG23	1.86	0.75
1:w:144:MET:HE3	1:w:304:TYR:CE2	2.21	0.75
2:E:433:GLU:N	2:E:433:GLU:OE2	2.20	0.75
3:M:78:SER:O	3:M:81:SER:OG	2.02	0.75
1:y:97:ASN:OD1	1:y:98:GLY:N	2.19	0.75
2:J:120:LEU:HD22	2:J:436:MET:HE1	1.66	0.75
1:1:288:ASP:OD1	1:1:289:LEU:N	2.19	0.75
4:l:198:LEU:O	4:l:280:LYS:NZ	2.19	0.75
2:A:121:VAL:HG21	2:A:460:LEU:HD11	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:314:THR:OG1	2:D:323:LYS:NZ	2.20	0.75
3:S:34:LYS:C	3:S:281:VAL:HG23	2.12	0.75
1:1:1:MET:HE2	1:1:3:PHE:HB3	1.69	0.75
1:4:1:MET:HE2	1:4:1:MET:HA	1.67	0.75
1:6:6:ALA:HB1	1:6:389:ILE:HG13	1.69	0.75
3:Q:272:LYS:O	3:Q:275:MET:HE3	1.86	0.75
3:U:120:GLN:O	3:U:123:ASN:ND2	2.19	0.75
1:8:43:PHE:CZ	1:8:48:VAL:HG22	2.22	0.74
3:U:3:ILE:HD11	3:U:7:MET:CB	2.17	0.74
4:c:88:ASN:O	4:c:92:VAL:HG23	1.88	0.74
1:6:186:VAL:HG22	1:6:196:MET:CE	2.17	0.74
2:B:423:ASP:N	2:B:423:ASP:OD1	2.20	0.74
3:Q:99:ASN:ND2	4:f:70:ASP:OD2	2.20	0.74
4:a:277:GLU:OE1	4:a:277:GLU:N	2.20	0.74
2:B:98:LEU:HD21	2:B:150:TYR:CZ	2.21	0.74
2:G:545:LEU:O	1:w:382:TYR:OH	2.03	0.74
4:e:4:VAL:O	4:e:6:ASN:N	2.20	0.74
1:5:10:LEU:HD11	1:5:382:TYR:HD1	1.53	0.74
2:D:27:ASN:OD1	2:D:28:ASN:ND2	2.20	0.74
2:F:75:LEU:HA	2:F:506:LEU:HD13	1.70	0.74
2:J:518:LEU:O	2:J:518:LEU:HD13	1.86	0.74
3:M:219:ASN:O	3:M:220:VAL:HG12	1.87	0.74
3:T:307:MET:HE3	3:T:307:MET:O	1.87	0.74
1:3:288:ASP:OD1	1:3:289:LEU:N	2.20	0.74
1:6:172:VAL:HG12	1:6:199:TYR:CE1	2.23	0.74
2:K:64:GLN:NE2	2:K:65:ARG:O	2.21	0.74
1:y:63:ASP:OD2	1:y:79:GLN:N	2.20	0.74
3:T:263:LEU:HD11	3:T:267:ARG:NH2	2.02	0.74
4:n:387:GLU:N	4:n:387:GLU:OE2	2.20	0.74
1:4:327:ALA:HB3	1:4:335:ALA:HB3	1.70	0.74
1:8:111:MET:HE2	1:w:38:SER:OG	1.88	0.74
4:f:200:ASN:CG	4:f:217:ILE:HD12	2.12	0.74
1:2:186:VAL:HG22	1:2:196:MET:CE	2.18	0.74
1:5:375:MET:SD	1:7:391:THR:HG21	2.28	0.74
2:B:335:VAL:CG2	2:B:414:LEU:HD13	2.18	0.74
2:G:542:ALA:HB1	2:G:546:PHE:CZ	2.23	0.74
3:L:103:SER:OG	3:L:105:ASP:OD1	2.06	0.74
2:J:157:GLN:OE1	3:L:48:GLN:NE2	2.21	0.74
4:j:91:ARG:NH1	4:j:94:GLU:OE1	2.20	0.74
1:4:195:ASP:O	1:4:215:SER:OG	2.06	0.73
2:F:73:ASN:OD1	2:F:76:ARG:NH1	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:148:ASP:OD1	2:I:149:GLN:N	2.21	0.73
3:L:261:ASP:OD1	3:L:262:SER:N	2.21	0.73
3:P:281:VAL:HG13	3:P:282:ASP:H	1.53	0.73
3:Q:273:LEU:CD2	4:f:5:ILE:HD12	2.16	0.73
3:R:267:ARG:NH2	3:S:128:THR:O	2.21	0.73
4:m:108:ASP:OD1	4:m:108:ASP:N	2.21	0.73
1:2:26:ASN:ND2	1:3:41:ASP:OD2	2.22	0.73
2:B:281:GLY:O	2:B:285:THR:HG22	1.88	0.73
2:H:288:SER:OG	2:H:289:GLN:OE1	2.05	0.73
3:P:16:ILE:O	3:P:20:GLN:HG2	1.88	0.73
2:H:98:LEU:HD23	2:H:150:TYR:CD2	2.23	0.73
2:H:387:LYS:NZ	2:H:388:ASP:O	2.20	0.73
3:R:20:GLN:HG3	3:R:24:MET:HE1	1.71	0.73
4:f:387:GLU:N	4:f:387:GLU:OE2	2.21	0.73
1:7:139:ILE:O	1:7:139:ILE:HG23	1.87	0.73
2:C:201:GLN:O	2:C:205:LEU:HD23	1.89	0.73
2:C:488:LYS:O	2:C:492:LEU:HD13	1.88	0.73
2:F:186:MET:HE3	2:F:195:PRO:HD3	1.70	0.73
2:A:310:ASN:HB3	2:A:326:ASP:HB2	1.70	0.73
2:C:376:ARG:O	2:C:380:ASN:N	2.20	0.73
2:F:429:THR:HG22	2:F:429:THR:O	1.89	0.73
3:P:261:ASP:OD1	3:P:262:SER:N	2.22	0.73
3:Q:183:ILE:HD12	3:Q:183:ILE:O	1.87	0.73
1:7:43:PHE:O	1:7:45:GLY:N	2.21	0.73
2:C:196:ASN:O	2:C:199:LEU:N	2.20	0.73
3:L:53:SER:O	3:L:56:GLN:HG2	1.87	0.73
3:T:283:TRP:CZ2	4:k:5:ILE:HB	2.24	0.73
1:z:375:MET:HE3	1:z:375:MET:C	2.14	0.73
2:A:540:GLN:OE1	2:A:541:THR:HG23	1.88	0.73
2:C:516:VAL:HG23	2:C:521:GLU:OE1	1.89	0.73
3:T:82:GLN:OE1	3:T:82:GLN:O	2.07	0.73
3:U:216:GLU:OE1	3:U:216:GLU:N	2.21	0.73
4:b:116:ILE:HG21	4:b:173:LEU:CD1	2.19	0.73
4:b:224:ASP:OD2	4:b:274:THR:OG1	2.07	0.73
4:j:451:ARG:NE	4:j:455:GLU:OE1	2.21	0.73
2:A:149:GLN:NE2	2:A:153:ASP:OD2	2.21	0.73
4:f:18:LEU:CD2	4:f:473:GLN:OE1	2.36	0.73
1:5:20:ILE:HD13	1:5:374:ASN:HB2	1.70	0.72
1:7:24:ILE:HD11	2:I:534:ALA:HB1	1.71	0.72
2:A:229:MET:SD	2:A:230:ALA:N	2.62	0.72
4:g:292:ALA:O	4:g:296:LEU:HD13	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:182:GLY:N	1:4:198:VAL:O	2.21	0.72
3:N:283:TRP:HH2	4:b:4:VAL:HB	1.54	0.72
3:U:275:MET:HE3	3:U:276:SER:N	2.04	0.72
1:x:289:LEU:HD11	1:x:303:ASN:N	2.04	0.72
1:3:186:VAL:HG22	1:3:196:MET:SD	2.29	0.72
1:2:112:GLN:OE1	1:2:112:GLN:N	2.22	0.72
2:C:112:SER:O	2:C:115:THR:OG1	2.06	0.72
2:K:441:LYS:HD2	2:K:441:LYS:C	2.14	0.72
3:L:165:ASP:OD1	3:L:166:SER:N	2.21	0.72
4:d:485:GLN:HA	4:d:488:GLN:OE1	1.90	0.72
1:5:251:ILE:HG22	1:5:252:ASN:OD1	1.89	0.72
2:J:494:THR:O	2:J:498:THR:HG23	1.87	0.72
2:K:48:LEU:O	2:K:52:GLY:N	2.21	0.72
3:Q:36:VAL:HG12	3:Q:279:VAL:HG13	1.72	0.72
1:3:63:ASP:O	2:B:52:GLY:N	2.21	0.72
1:7:375:MET:HE2	1:7:375:MET:HA	1.71	0.72
3:V:165:ASP:OD1	3:V:166:SER:N	2.22	0.72
4:j:372:GLU:OE1	4:j:383:ALA:N	2.22	0.72
2:E:118:GLN:O	2:E:121:VAL:HG12	1.88	0.72
3:Q:103:SER:N	3:Q:106:ASP:OD2	2.23	0.72
1:3:154:MET:CE	1:3:276:ILE:HG23	2.19	0.72
2:G:166:VAL:HG13	2:G:244:LEU:HD11	1.72	0.72
4:n:308:VAL:O	4:n:310:MET:HE1	1.90	0.72
2:D:126:ASP:OD1	2:D:128:ALA:N	2.22	0.72
3:M:35:ARG:N	3:M:279:VAL:O	2.22	0.72
3:V:122:MET:HE2	3:V:201:PHE:CZ	2.25	0.72
3:N:159:SER:OG	3:N:178:GLN:OE1	2.07	0.71
4:b:37:ARG:NH2	4:b:454:ILE:O	2.23	0.71
1:8:77:ILE:HD11	1:8:83:PHE:CZ	2.25	0.71
3:L:113:ASP:O	3:L:117:ILE:HD12	1.89	0.71
1:5:379:GLN:NE2	1:7:391:THR:HG23	2.04	0.71
4:c:108:ASP:OD1	4:c:108:ASP:N	2.19	0.71
1:6:329:GLN:CB	1:6:335:ALA:HB2	2.20	0.71
2:E:131:GLN:NE2	2:E:131:GLN:O	2.24	0.71
2:E:537:GLN:O	2:E:541:THR:HG23	1.90	0.71
2:K:101:ASP:OD2	2:K:104:SER:N	2.21	0.71
2:K:165:SER:O	2:K:168:GLN:NE2	2.23	0.71
1:3:154:MET:HE3	1:3:276:ILE:HG23	1.72	0.71
1:7:196:MET:CE	1:7:198:VAL:HG22	2.19	0.71
3:T:300:SER:HB3	3:U:30:MET:HE1	1.73	0.71
4:c:449:SER:O	4:c:453:ARG:NH2	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:m:296:LEU:HD13	4:m:301:VAL:HG21	1.72	0.71
2:J:387:LYS:HD2	2:J:387:LYS:C	2.16	0.71
1:8:43:PHE:CE2	1:8:48:VAL:CG2	2.73	0.71
3:R:298:GLN:OE1	3:R:299:ALA:N	2.24	0.71
3:S:234:ARG:NH1	4:i:152:ASP:OD2	2.23	0.71
4:j:353:ASP:OD1	4:j:354:ASP:N	2.23	0.71
1:6:196:MET:H	1:6:196:MET:HE2	1.54	0.71
2:A:310:ASN:HD22	2:A:310:ASN:N	1.86	0.71
3:M:76:GLU:OE2	3:M:76:GLU:N	2.23	0.71
3:S:30:MET:HE1	3:S:283:TRP:HB2	1.72	0.71
2:C:306:ALA:HB1	2:C:328:PHE:CB	2.21	0.70
2:G:469:GLY:O	2:G:471:ASN:N	2.24	0.70
2:H:357:LYS:O	2:H:359:GLN:OE1	2.08	0.70
4:e:37:ARG:NH2	4:e:454:ILE:O	2.24	0.70
4:k:251:ASP:CG	4:k:253:THR:HG22	2.16	0.70
2:K:130:ARG:O	2:K:134:ILE:HD12	1.91	0.70
2:K:362:ASP:OD1	2:K:377:THR:OG1	2.09	0.70
3:R:129:ASP:OD1	3:R:130:GLY:N	2.23	0.70
3:V:92:GLU:OE1	4:n:63:GLN:HB2	1.91	0.70
4:c:296:LEU:HB3	4:c:301:VAL:HG11	1.73	0.70
4:f:222:LYS:N	4:f:231:TYR:O	2.24	0.70
2:H:359:GLN:OE1	2:H:359:GLN:N	2.24	0.70
2:J:372:TRP:CE3	2:J:393:LEU:HD11	2.27	0.70
4:h:222:LYS:HD3	4:h:278:ASP:OD1	1.91	0.70
1:5:20:ILE:CD1	1:5:374:ASN:HB2	2.21	0.70
3:N:103:SER:N	3:N:106:ASP:OD2	2.25	0.70
3:S:35:ARG:N	3:S:281:VAL:HG23	2.05	0.70
2:D:19:LEU:HD13	2:D:528:TYR:HB2	1.73	0.70
2:H:358:VAL:C	2:H:359:GLN:OE1	2.34	0.70
3:U:292:MET:HE3	3:U:293:GLN:HG2	1.73	0.70
1:z:217:ASP:OD1	1:z:218:PRO:HD2	1.92	0.70
2:F:276:ASN:OD1	2:F:285:THR:HG23	1.90	0.70
1:5:45:GLY:O	1:5:52:VAL:HG22	1.92	0.70
2:B:495:SER:HB3	2:C:142:ASN:OD1	1.92	0.70
2:E:484:ASP:OD1	2:E:485:VAL:N	2.23	0.70
1:3:194:HIS:O	1:3:196:MET:HE1	1.92	0.70
1:4:16:ASN:O	1:4:19:VAL:CG2	2.39	0.70
3:Q:12:ASN:O	3:Q:16:ILE:HD13	1.91	0.70
4:o:3:GLN:O	4:o:4:VAL:HG22	1.92	0.70
1:z:112:GLN:HB3	1:z:114:MET:HE2	1.73	0.70
2:H:9:MET:HE1	2:H:12:LEU:HD23	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:233:ASN:ND2	4:f:152:ASP:OD1	2.24	0.70
3:U:30:MET:HE2	3:U:283:TRP:CZ3	2.27	0.70
4:a:205:ALA:O	4:a:208:THR:OG1	2.09	0.70
4:f:3:GLN:HB2	4:f:6:ASN:CG	2.16	0.70
1:w:374:ASN:HA	1:w:377:VAL:CG1	2.22	0.70
1:1:309:GLU:N	1:1:309:GLU:OE2	2.25	0.70
1:9:206:ASN:OD1	1:9:268:GLN:NE2	2.25	0.70
2:A:117:LEU:O	2:A:121:VAL:HG23	1.91	0.70
2:A:306:ALA:HB2	2:A:424:MET:SD	2.32	0.70
2:E:270:ILE:HG23	2:E:274:LEU:HG	1.73	0.70
2:G:65:ARG:NH1	2:G:196:ASN:O	2.24	0.70
3:R:23:TRP:HH2	4:f:486:VAL:HG22	1.57	0.70
4:f:79:GLU:O	4:f:83:ASN:OD1	2.09	0.70
2:E:353:VAL:HG11	2:E:399:LYS:HE3	1.72	0.69
4:b:105:SER:N	4:b:108:ASP:OD2	2.24	0.69
1:6:196:MET:HE2	1:6:196:MET:N	2.07	0.69
2:D:490:SER:OG	3:R:40:SER:O	2.09	0.69
2:K:431:GLU:N	2:K:431:GLU:OE2	2.26	0.69
3:S:30:MET:HE3	3:S:286:VAL:HG23	1.74	0.69
1:w:139:ILE:O	1:w:139:ILE:HG22	1.92	0.69
1:7:380:ARG:N	1:7:380:ARG:HD2	2.07	0.69
1:9:186:VAL:HG22	1:9:196:MET:HE3	1.71	0.69
2:C:529:GLN:O	2:C:533:LEU:HD23	1.93	0.69
1:7:286:PRO:HB3	1:8:267:MET:HE3	1.73	0.69
2:C:493:LYS:O	2:C:497:THR:HG23	1.92	0.69
3:T:314:GLN:C	3:T:314:GLN:OE1	2.36	0.69
4:j:451:ARG:HG2	4:j:455:GLU:OE1	1.92	0.69
1:x:122:THR:O	1:x:127:THR:N	2.25	0.69
2:G:71:ILE:O	2:G:75:LEU:HD23	1.91	0.69
3:O:307:MET:O	3:O:310:MET:HE3	1.93	0.69
4:e:324:LEU:H	4:e:324:LEU:HD23	1.57	0.69
4:g:314:ASP:OD1	4:g:316:ASN:N	2.26	0.69
4:h:488:GLN:C	4:h:488:GLN:OE1	2.36	0.69
4:j:450:ALA:O	4:j:454:ILE:HD13	1.93	0.69
1:z:110:ASN:ND2	1:z:111:MET:SD	2.66	0.69
1:6:155:GLN:NE2	1:6:265:ASN:O	2.26	0.69
2:H:298:LEU:HD22	2:H:421:ILE:CD1	2.23	0.69
3:P:20:GLN:OE1	3:P:20:GLN:HA	1.92	0.69
1:y:1:MET:O	1:y:2:SER:OG	2.10	0.69
1:3:13:ALA:O	1:3:17:LEU:HD23	1.92	0.69
2:E:353:VAL:HG11	2:E:399:LYS:CE	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:165:ASP:OD2	3:N:123:ASN:ND2	2.24	0.69
3:P:246:VAL:O	3:P:250:LEU:HD22	1.93	0.69
3:S:207:ALA:HB2	3:S:232:THR:HG21	1.73	0.69
3:U:3:ILE:HD11	3:U:7:MET:HB3	1.74	0.69
1:y:61:PHE:CZ	1:y:324:GLU:OE1	2.46	0.69
1:4:6:ALA:HB1	1:4:389:ILE:HG13	1.74	0.69
1:6:84:ARG:HE	1:6:92:VAL:HG13	1.57	0.69
1:9:277:VAL:HG23	1:9:277:VAL:O	1.92	0.69
2:B:228:THR:HG23	2:B:233:TYR:C	2.16	0.69
2:B:304:ALA:HB3	2:B:468:VAL:HG22	1.75	0.69
2:D:511:GLN:CB	3:R:7:MET:HE1	2.22	0.69
2:E:541:THR:HG21	1:y:375:MET:CE	2.22	0.69
2:J:36:ARG:NH2	2:J:66:GLU:OE1	2.26	0.69
2:K:471:ASN:OD1	2:K:472:LYS:HG3	1.92	0.69
3:R:20:GLN:CG	3:R:24:MET:HE1	2.23	0.69
3:R:234:ARG:NH1	4:h:152:ASP:OD2	2.26	0.69
3:V:6:GLN:HA	3:V:9:TYR:CE2	2.28	0.69
4:i:157:ASP:OD1	4:i:158:ILE:N	2.26	0.69
1:y:379:GLN:OE1	1:y:379:GLN:HA	1.92	0.69
2:G:267:ASN:C	2:G:268:ILE:HD12	2.18	0.69
3:M:26:LEU:C	3:M:30:MET:HE3	2.17	0.69
2:A:166:VAL:O	2:A:170:ASN:OD1	2.10	0.69
2:C:484:ASP:OD1	2:C:485:VAL:N	2.25	0.69
2:H:195:PRO:HG2	2:H:198:LEU:HD12	1.73	0.69
4:l:296:LEU:HD22	4:l:301:VAL:HB	1.75	0.69
4:n:151:ASN:N	4:n:154:GLU:OE1	2.24	0.69
1:w:147:LYS:NZ	1:w:284:TYR:CE2	2.60	0.69
1:w:368:LEU:CD1	1:w:372:LEU:HD13	2.23	0.69
2:D:134:ILE:O	2:D:138:GLU:OE2	2.10	0.68
2:E:229:MET:HE2	2:E:230:ALA:HB3	1.75	0.68
2:I:493:LYS:O	2:I:497:THR:HG23	1.92	0.68
4:c:99:SER:HB2	4:c:175:VAL:HG21	1.75	0.68
2:C:516:VAL:CG2	2:C:521:GLU:OE1	2.41	0.68
3:L:8:MET:N	3:L:8:MET:SD	2.66	0.68
1:2:267:MET:HE1	1:2:269:GLN:OE1	1.93	0.68
1:9:82:PHE:HB2	1:9:318:ALA:HB3	1.74	0.68
2:G:505:GLN:NE2	2:H:197:ASP:OD1	2.26	0.68
2:I:338:ASN:OD1	2:I:340:ASN:N	2.26	0.68
3:L:200:LEU:HA	3:L:203:MET:HE3	1.73	0.68
3:P:260:LEU:HD21	3:Q:120:GLN:HE22	1.59	0.68
3:S:129:ASP:OD1	3:S:133:ARG:N	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:f:3:GLN:HG2	4:f:5:ILE:CG2	2.23	0.68
4:n:225:ASP:OD1	4:n:226:THR:N	2.27	0.68
1:y:269:GLN:OE1	1:y:269:GLN:N	2.27	0.68
3:T:157:GLU:OE1	3:T:157:GLU:N	2.26	0.68
4:d:10:LEU:H	4:d:10:LEU:HD12	1.58	0.68
1:w:374:ASN:HA	1:w:377:VAL:HG12	1.75	0.68
2:C:75:LEU:HD23	2:C:506:LEU:HB3	1.75	0.68
2:C:275:LEU:HD12	2:C:284:LEU:HD12	1.76	0.68
2:G:293:GLN:O	2:G:297:THR:HG23	1.93	0.68
2:G:519:ASP:OD1	2:G:520:GLU:N	2.25	0.68
4:o:125:ARG:NH1	4:o:129:GLN:OE1	2.26	0.68
1:4:26:ASN:OD1	1:5:52:VAL:HG13	1.93	0.68
2:G:125:GLU:OE1	2:G:125:GLU:N	2.26	0.68
2:I:213:VAL:O	2:I:215:VAL:HG23	1.92	0.68
3:Q:35:ARG:NH1	3:Q:42:ASP:OD2	2.26	0.68
4:f:372:GLU:OE1	4:f:372:GLU:N	2.27	0.68
2:A:162:ILE:O	2:A:166:VAL:HG23	1.94	0.68
3:L:250:LEU:HD12	3:L:251:GLY:N	2.09	0.68
3:N:276:SER:HB2	4:b:5:ILE:HG21	1.75	0.68
4:g:108:ASP:N	4:g:108:ASP:OD1	2.18	0.68
4:k:439:ASN:ND2	4:l:84:GLU:OE2	2.27	0.68
1:w:103:ASP:OD1	1:w:106:ARG:N	2.27	0.68
2:B:2:SER:O	2:B:5:ILE:HD12	1.94	0.68
2:E:156:LYS:HE2	2:E:156:LYS:CA	2.19	0.68
2:C:436:MET:SD	2:C:437:ALA:N	2.67	0.68
2:G:130:ARG:CZ	2:G:434:ILE:HD11	2.24	0.68
3:N:312:LEU:HD13	3:N:313:PHE:N	2.09	0.68
4:i:29:ILE:HD13	4:i:466:MET:HE2	1.75	0.68
4:k:456:ASP:OD1	4:k:457:SER:N	2.27	0.68
4:n:451:ARG:HD3	4:n:455:GLU:OE2	1.94	0.68
2:F:531:TYR:O	2:F:535:ASN:ND2	2.27	0.67
4:b:10:LEU:HD12	4:b:483:ALA:CB	2.24	0.67
4:h:284:VAL:HG13	4:h:288:ASP:OD2	1.93	0.67
1:8:43:PHE:HA	1:8:49:GLY:HA2	1.75	0.67
2:H:335:VAL:HG22	2:H:414:LEU:HD23	1.76	0.67
4:c:445:ASN:OD1	4:d:16:ASN:ND2	2.25	0.67
2:A:30:ASN:ND2	2:K:531:TYR:CE2	2.63	0.67
2:A:539:LEU:O	2:A:543:ASN:OD1	2.11	0.67
2:D:511:GLN:HB2	3:R:7:MET:HE1	1.75	0.67
2:G:96:ASP:OD1	2:G:97:ASN:ND2	2.28	0.67
2:I:99:LEU:HD12	2:I:485:VAL:HG21	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:357:LYS:HG2	2:K:396:ASP:OD1	1.94	0.67
3:P:20:GLN:OE1	3:P:20:GLN:CA	2.40	0.67
3:R:298:GLN:NE2	4:i:491:LEU:HD21	2.09	0.67
4:h:84:GLU:OE1	4:h:84:GLU:N	2.22	0.67
4:n:334:SER:C	4:n:346:ASN:OD1	2.37	0.67
4:n:449:SER:O	4:n:452:SER:OG	2.10	0.67
1:1:1:MET:HE2	1:1:3:PHE:CB	2.23	0.67
3:O:216:GLU:OE1	3:O:217:GLY:N	2.27	0.67
3:V:122:MET:CE	3:V:201:PHE:CZ	2.77	0.67
1:w:5:GLN:OE1	1:w:6:ALA:N	2.28	0.67
1:5:10:LEU:HD11	1:5:382:TYR:CD1	2.30	0.67
2:C:135:GLY:O	2:C:138:GLU:HG2	1.94	0.67
2:D:20:ASN:OD1	3:Q:11:GLN:NE2	2.27	0.67
2:D:320:ASP:OD2	2:D:322:ASN:HB3	1.95	0.67
2:E:29:TYR:CE2	2:E:518:LEU:HD23	2.30	0.67
4:i:416:LEU:O	4:i:420:ASP:OD1	2.12	0.67
4:m:406:GLU:OE2	4:m:406:GLU:N	2.27	0.67
1:3:77:ILE:O	1:3:96:ARG:NH2	2.28	0.67
1:6:329:GLN:HB3	1:6:335:ALA:HB2	1.74	0.67
3:O:205:ASP:HA	3:O:208:ILE:CG1	2.24	0.67
4:b:493:LEU:HD11	4:b:494:LEU:HD13	1.76	0.67
2:C:358:VAL:HG12	2:C:398:LEU:CD2	2.24	0.67
3:L:216:GLU:OE1	3:L:217:GLY:N	2.28	0.67
3:O:164:VAL:HG11	3:O:170:MET:HG2	1.75	0.67
3:T:23:TRP:CZ2	3:T:294:GLN:NE2	2.63	0.67
3:U:3:ILE:HD11	3:U:7:MET:CG	2.25	0.67
1:w:191:GLY:O	1:w:192:ASN:ND2	2.27	0.67
1:z:30:TYR:CD1	1:z:361:LEU:HB3	2.29	0.67
1:w:253:GLY:HA3	1:x:234:GLU:C	2.20	0.67
1:x:17:LEU:HD12	1:y:2:SER:CB	2.24	0.67
1:3:156:ILE:HD12	1:3:276:ILE:HD11	1.76	0.67
1:6:60:ASP:O	1:6:365:ASN:ND2	2.27	0.67
2:I:304:ALA:CB	2:I:468:VAL:HG13	2.25	0.67
2:J:281:GLY:O	2:J:285:THR:N	2.27	0.67
2:K:12:LEU:HD22	2:K:532:TYR:CE2	2.30	0.67
3:M:30:MET:HE2	3:M:286:VAL:CG1	2.25	0.67
3:M:180:PHE:O	3:M:200:LEU:HD13	1.94	0.67
3:O:203:MET:HE1	3:O:235:GLY:C	2.19	0.67
3:P:24:MET:N	3:P:24:MET:SD	2.67	0.67
1:1:1:MET:CE	1:1:3:PHE:CB	2.73	0.67
1:3:332:ASN:HA	2:A:43:GLN:OE1	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:9:324:GLU:OE2	1:9:324:GLU:N	2.27	0.67
2:G:169:ILE:HD11	2:G:212:ILE:HG21	1.76	0.67
2:A:181:ASP:OD1	2:A:185:ARG:NE	2.28	0.66
2:B:220:GLN:NE2	2:B:226:ASN:OD1	2.28	0.66
3:O:22:GLU:OE2	3:O:293:GLN:NE2	2.27	0.66
3:T:30:MET:HE3	4:i:479:VAL:HG12	1.77	0.66
3:V:122:MET:HE2	3:V:201:PHE:CE1	2.30	0.66
4:b:443:THR:O	4:b:447:LEU:HD22	1.95	0.66
4:f:18:LEU:HD22	4:f:473:GLN:OE1	1.94	0.66
4:f:117:THR:O	4:f:121:ASN:ND2	2.27	0.66
1:x:185:THR:OG1	1:x:195:ASP:OD1	2.09	0.66
1:y:19:VAL:O	1:y:23:ASN:ND2	2.28	0.66
1:3:290:VAL:HG12	2:A:70:PHE:CZ	2.30	0.66
2:E:88:ARG:NH1	2:E:290:ASP:OD2	2.27	0.66
3:Q:60:SER:O	3:Q:64:LEU:HD12	1.95	0.66
1:w:135:ALA:HB1	1:w:136:PRO:CD	2.25	0.66
1:5:277:VAL:HG23	1:5:277:VAL:O	1.94	0.66
1:6:184:VAL:O	1:6:196:MET:HE2	1.95	0.66
2:E:545:LEU:HD23	1:y:379:GLN:OE1	1.94	0.66
2:F:75:LEU:HB2	2:F:506:LEU:HD22	1.75	0.66
4:m:32:LEU:HD23	4:m:459:TYR:CE1	2.30	0.66
1:1:375:MET:SD	2:C:541:THR:HG21	2.36	0.66
2:C:253:PRO:O	2:C:254:THR:HG23	1.95	0.66
3:N:226:ALA:O	3:N:229:ILE:HG22	1.94	0.66
4:c:473:GLN:O	4:c:477:THR:HG23	1.96	0.66
4:n:417:ALA:O	4:n:420:ASP:OD1	2.13	0.66
1:x:289:LEU:CD1	1:x:304:TYR:CE1	2.79	0.66
1:7:53:LYS:HZ1	1:7:55:ALA:HB2	1.60	0.66
4:f:406:GLU:O	4:f:411:LYS:NZ	2.29	0.66
1:x:289:LEU:HD13	1:x:304:TYR:CE1	2.30	0.66
1:4:20:ILE:HB	1:4:375:MET:HE2	1.78	0.66
2:A:4:LEU:O	2:A:7:HIS:ND1	2.26	0.66
2:H:298:LEU:HD22	2:H:421:ILE:HD11	1.77	0.66
2:K:406:ALA:HB1	2:K:410:ASP:HB2	1.78	0.66
3:O:30:MET:SD	3:O:283:TRP:CZ3	2.89	0.66
3:U:289:SER:HA	3:U:292:MET:HE2	1.78	0.66
4:g:223:PHE:N	4:g:277:GLU:O	2.29	0.66
2:E:93:SER:O	2:E:97:ASN:ND2	2.28	0.66
2:I:304:ALA:HB1	2:I:468:VAL:HG22	1.78	0.66
3:Q:168:ARG:CG	3:Q:170:MET:HE2	2.26	0.66
4:g:494:LEU:HD13	4:g:495:ARG:N	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:362:ASP:OD1	2:I:377:THR:HG21	1.94	0.66
1:2:375:MET:SD	1:3:391:THR:HG21	2.36	0.66
2:H:186:MET:C	2:H:186:MET:SD	2.79	0.66
3:O:105:ASP:OD1	4:b:53:ARG:NH2	2.29	0.66
4:a:236:VAL:HG21	4:a:242:LYS:HB3	1.77	0.66
1:y:103:ASP:OD1	1:y:107:ASN:N	2.28	0.66
1:3:290:VAL:O	1:3:291:SER:OG	2.12	0.66
1:3:399:LEU:HA	1:3:402:LEU:HD21	1.77	0.66
1:5:104:GLU:OE1	1:7:341:GLY:N	2.29	0.66
4:o:338:ASN:ND2	4:o:342:SER:OG	2.28	0.66
1:w:202:LYS:HD2	1:w:202:LYS:C	2.21	0.66
2:A:453:ASN:O	2:A:457:GLN:NE2	2.29	0.65
2:I:164:SER:O	2:I:168:GLN:NE2	2.22	0.65
3:M:164:VAL:H	3:M:170:MET:HE3	1.60	0.65
3:M:265:SER:O	3:M:269:LEU:HD13	1.96	0.65
3:M:314:GLN:O	3:N:301:TYR:OH	2.11	0.65
1:1:101:LYS:HB3	1:1:111:MET:HE1	1.78	0.65
1:1:156:ILE:HG22	1:1:276:ILE:CG2	2.26	0.65
1:3:399:LEU:HA	1:3:402:LEU:CD2	2.26	0.65
1:7:373:VAL:HG21	2:K:9:MET:HE3	1.78	0.65
3:M:36:VAL:HG21	3:M:42:ASP:OD1	1.96	0.65
3:R:72:LYS:O	3:R:74:SER:N	2.28	0.65
3:R:287:ILE:HG21	4:h:494:LEU:HD21	1.79	0.65
4:g:57:ASN:O	4:g:61:LEU:HG	1.96	0.65
4:i:233:LYS:HG2	4:i:245:TYR:CE1	2.31	0.65
1:w:294:ILE:HD12	1:w:294:ILE:O	1.97	0.65
1:w:399:LEU:HD13	1:w:402:LEU:HD12	1.76	0.65
1:1:202:LYS:NZ	1:1:205:ASP:OD1	2.27	0.65
2:A:121:VAL:HG21	2:A:460:LEU:CD1	2.26	0.65
2:F:40:ILE:HD12	2:F:40:ILE:O	1.96	0.65
3:S:30:MET:CE	3:S:286:VAL:HG23	2.25	0.65
4:d:289:LEU:HD21	4:d:307:VAL:CG2	2.26	0.65
4:i:406:GLU:N	4:i:406:GLU:OE2	2.30	0.65
4:n:57:ASN:O	4:n:61:LEU:HD22	1.96	0.65
2:E:390:ASP:O	2:E:392:LYS:HD2	1.96	0.65
3:P:31:SER:O	4:c:17:ASN:ND2	2.28	0.65
1:5:42:MET:HG3	1:5:47:LYS:HE3	1.79	0.65
3:V:313:PHE:HA	3:V:316:ASN:HB2	1.79	0.65
4:n:310:MET:SD	4:n:325:ALA:HB3	2.36	0.65
4:o:416:LEU:O	4:o:420:ASP:OD1	2.14	0.65
2:G:548:ALA:O	2:G:551:ASN:ND2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:526:GLN:N	2:H:526:GLN:OE1	2.30	0.65
3:V:230:ASP:OD2	3:V:234:ARG:NH1	2.27	0.65
4:f:105:SER:N	4:f:108:ASP:OD2	2.30	0.65
4:l:202:THR:OG1	4:l:257:VAL:O	2.14	0.65
1:x:22:ASN:ND2	1:y:48:VAL:O	2.30	0.65
1:z:86:VAL:HG13	1:z:117:THR:HG21	1.79	0.65
1:3:237:ILE:HD11	2:C:253:PRO:HB2	1.78	0.65
1:5:143:LEU:HD23	1:5:143:LEU:H	1.61	0.65
1:6:368:LEU:HD13	1:8:380:ARG:HG2	1.79	0.65
2:E:541:THR:HG21	1:y:375:MET:HE1	1.77	0.65
2:G:182:GLN:OE1	2:G:185:ARG:NH2	2.26	0.65
2:H:5:ILE:HD13	2:H:546:PHE:HE2	1.62	0.65
3:T:23:TRP:HZ2	3:T:294:GLN:NE2	1.93	0.65
3:U:78:SER:O	3:U:82:GLN:NE2	2.29	0.65
3:V:135:ILE:HD12	3:V:136:PHE:N	2.11	0.65
1:3:330:GLY:O	2:A:43:GLN:NE2	2.29	0.65
1:6:95:SER:HB2	1:6:333:VAL:HG13	1.79	0.65
3:Q:84:THR:O	3:Q:87:ILE:HD12	1.97	0.65
4:b:13:LEU:C	4:b:13:LEU:HD23	2.22	0.65
4:e:200:ASN:HB3	4:e:204:LYS:HZ3	1.62	0.65
4:h:194:THR:HG21	4:h:284:VAL:HG23	1.79	0.65
4:m:485:GLN:NE2	4:m:485:GLN:HA	2.11	0.65
1:w:165:PRO:HB2	1:w:168:THR:OG1	1.97	0.65
1:1:399:LEU:HD12	1:z:382:TYR:CZ	2.32	0.65
1:4:87:ASP:OD1	1:4:91:SER:N	2.30	0.65
3:N:66:ARG:O	3:N:70:THR:OG1	2.14	0.65
3:S:6:GLN:N	3:S:8:MET:SD	2.69	0.65
3:S:223:GLU:N	3:S:223:GLU:OE1	2.30	0.65
4:b:4:VAL:O	4:b:8:ASN:N	2.29	0.65
4:i:210:LEU:HD23	4:i:264:THR:HA	1.78	0.65
1:8:196:MET:HE1	1:8:214:ASP:HB2	1.79	0.65
2:I:250:SER:OG	2:I:340:ASN:ND2	2.30	0.65
2:J:436:MET:O	2:J:455:ASN:N	2.30	0.65
1:1:101:LYS:CB	1:1:111:MET:HE1	2.26	0.64
2:I:450:ASP:OD2	3:L:142:GLU:N	2.28	0.64
3:N:111:ALA:O	3:N:208:ILE:HD11	1.97	0.64
3:T:13:MET:HE2	3:T:17:THR:CG2	2.25	0.64
4:i:44:ASP:OD1	4:i:45:ALA:N	2.30	0.64
4:i:245:TYR:CD2	4:i:271:LEU:N	2.65	0.64
4:m:32:LEU:HD23	4:m:459:TYR:CD1	2.32	0.64
2:C:423:ASP:O	2:C:425:ASN:ND2	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:443:ASP:OD1	2:H:445:ASP:N	2.31	0.64
2:K:35:THR:O	2:K:37:GLN:NE2	2.30	0.64
3:V:310:MET:HB3	3:V:313:PHE:CE2	2.33	0.64
1:3:106:ARG:NE	1:3:139:ILE:O	2.30	0.64
4:d:494:LEU:O	4:d:495:ARG:NE	2.30	0.64
4:l:108:ASP:N	4:l:108:ASP:OD1	2.28	0.64
1:z:12:ALA:O	1:z:15:THR:OG1	2.16	0.64
1:6:208:TRP:O	1:6:230:LEU:HD23	1.98	0.64
2:E:118:GLN:CA	2:E:121:VAL:HG12	2.27	0.64
3:S:106:ASP:OD1	4:h:53:ARG:NH1	2.30	0.64
4:o:480:LEU:C	4:o:480:LEU:HD13	2.21	0.64
1:w:320:PHE:CE2	1:w:326:LEU:HD21	2.32	0.64
1:9:182:GLY:N	1:9:198:VAL:O	2.29	0.64
3:P:20:GLN:OE1	3:P:297:LEU:CD2	2.45	0.64
1:w:87:ASP:OD1	1:w:90:GLY:N	2.28	0.64
1:w:319:ASN:C	1:w:320:PHE:HD1	2.06	0.64
1:3:111:MET:SD	1:3:112:GLN:N	2.71	0.64
1:6:372:LEU:HD13	1:7:399:LEU:HD11	1.79	0.64
2:I:310:ASN:O	2:I:311:ALA:C	2.36	0.64
2:I:371:ASP:OD2	2:I:384:THR:HG23	1.97	0.64
4:b:10:LEU:HD12	4:b:483:ALA:HB1	1.80	0.64
4:b:120:LEU:O	4:b:124:ASP:OD1	2.16	0.64
1:z:156:ILE:HG23	1:z:158:LEU:HD11	1.79	0.64
1:2:156:ILE:CD1	1:2:158:LEU:HD21	2.27	0.64
1:3:64:GLY:HA3	1:3:362:GLU:HB2	1.79	0.64
2:C:15:ALA:O	2:C:19:LEU:HD23	1.98	0.64
2:J:121:VAL:O	2:J:453:ASN:ND2	2.30	0.64
3:N:287:ILE:HG21	4:b:494:LEU:HG	1.79	0.64
3:P:248:ALA:O	3:P:252:THR:HG23	1.98	0.64
4:i:434:ASN:O	4:i:437:ILE:HG22	1.98	0.64
1:6:375:MET:HE1	1:8:388:THR:HA	1.80	0.64
2:A:181:ASP:OD2	2:A:185:ARG:NH2	2.31	0.64
2:B:141:VAL:HG22	2:B:424:MET:CE	2.28	0.64
2:F:116:SER:O	2:F:119:THR:HG22	1.98	0.64
2:H:359:GLN:OE1	2:H:396:ASP:HB3	1.98	0.64
2:I:423:ASP:OD1	2:I:423:ASP:N	2.31	0.64
3:Q:87:ILE:HD12	3:Q:88:GLN:N	2.13	0.64
3:U:34:LYS:NZ	3:U:279:VAL:HG22	2.13	0.64
1:y:217:ASP:OD2	1:y:250:THR:N	2.28	0.64
1:2:116:LEU:HG	1:2:137:ILE:CD1	2.27	0.64
2:A:165:SER:HB2	2:A:280:LEU:HD21	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:98:LEU:CD2	2:B:150:TYR:CZ	2.81	0.64
2:E:494:THR:O	2:E:497:THR:OG1	2.15	0.64
3:R:216:GLU:OE1	3:R:217:GLY:N	2.31	0.64
4:a:422:LEU:O	4:a:426:LEU:HD23	1.97	0.64
4:n:230:TYR:HB2	4:n:248:VAL:HG23	1.78	0.64
4:n:462:GLU:OE1	4:n:462:GLU:N	2.31	0.64
1:x:17:LEU:CD1	1:y:2:SER:CB	2.75	0.64
4:m:485:GLN:HA	4:m:485:GLN:HE21	1.63	0.63
1:w:318:ALA:HB1	1:w:320:PHE:HE1	1.63	0.63
1:1:156:ILE:HD12	1:1:156:ILE:O	1.98	0.63
4:e:5:ILE:HD12	4:e:487:PRO:HA	1.79	0.63
1:8:202:LYS:HE2	1:8:204:LYS:H	1.63	0.63
2:A:165:SER:CB	2:A:280:LEU:HD21	2.28	0.63
2:D:175:GLN:OE1	2:D:175:GLN:HA	1.96	0.63
3:L:22:GLU:C	3:L:22:GLU:OE2	2.42	0.63
3:L:28:GLU:OE2	3:L:34:LYS:NZ	2.31	0.63
3:M:28:GLU:OE1	3:M:32:THR:HG21	1.98	0.63
3:M:50:VAL:O	3:M:53:SER:OG	2.16	0.63
4:k:224:ASP:N	4:k:229:LYS:O	2.32	0.63
1:1:3:PHE:CZ	1:1:7:VAL:HG21	2.32	0.63
2:B:7:HIS:NE2	2:B:55:GLY:O	2.30	0.63
2:D:9:MET:HA	2:D:9:MET:CE	2.26	0.63
2:H:479:ALA:HB2	3:V:50:VAL:HG21	1.80	0.63
2:I:201:GLN:O	2:I:205:LEU:HD23	1.97	0.63
3:L:197:GLU:OE1	3:L:197:GLU:N	2.31	0.63
3:T:301:TYR:CE2	4:i:493:LEU:HD21	2.33	0.63
4:f:3:GLN:HB2	4:f:6:ASN:HB3	1.81	0.63
4:g:354:ASP:OD1	4:g:355:GLY:N	2.32	0.63
4:i:245:TYR:HD2	4:i:271:LEU:N	1.96	0.63
1:1:17:LEU:HB3	2:C:4:LEU:HD21	1.80	0.63
1:3:184:VAL:O	1:3:196:MET:HE2	1.99	0.63
1:9:18:ASP:OD1	1:x:2:SER:N	2.31	0.63
3:S:248:ALA:HB1	4:i:45:ALA:HB1	1.80	0.63
1:2:94:TYR:O	1:2:334:TRP:N	2.31	0.63
2:I:82:SER:O	2:I:86:THR:OG1	2.13	0.63
3:N:8:MET:HE1	3:N:307:MET:HE1	1.81	0.63
3:V:30:MET:SD	3:V:283:TRP:CZ3	2.92	0.63
3:V:54:GLN:OE1	3:V:55:ALA:N	2.32	0.63
3:V:301:TYR:OH	4:l:490:VAL:HG22	1.99	0.63
1:w:160:SER:OG	1:w:206:ASN:N	2.31	0.63
1:7:85:LEU:HD11	1:7:110:ASN:HD21	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:175:GLN:O	2:C:179:LEU:HG	1.99	0.63
2:C:275:LEU:O	2:C:275:LEU:HD13	1.98	0.63
2:K:90:GLU:OE1	2:K:91:GLN:NE2	2.32	0.63
3:L:42:ASP:OD2	3:L:46:ALA:N	2.32	0.63
4:c:350:TYR:CZ	4:c:352:ALA:HB2	2.34	0.63
4:h:79:GLU:OE2	4:h:79:GLU:O	2.17	0.63
1:z:288:ASP:O	1:z:305:SER:N	2.32	0.63
1:9:84:ARG:HG2	1:9:318:ALA:HB2	1.81	0.63
1:9:290:VAL:HG13	1:9:290:VAL:O	1.97	0.63
1:9:319:ASN:O	1:9:344:LEU:N	2.28	0.63
2:D:178:ASN:O	2:D:181:ASP:OD1	2.17	0.63
2:D:379:ASP:OD1	2:D:380:ASN:N	2.32	0.63
3:L:117:ILE:HD12	3:L:117:ILE:H	1.64	0.63
3:Q:103:SER:CB	3:Q:106:ASP:OD2	2.47	0.63
3:Q:282:ASP:CG	4:f:2:ALA:HA	2.24	0.63
3:T:19:SER:O	3:T:293:GLN:NE2	2.32	0.63
3:V:13:MET:HA	3:V:13:MET:HE3	1.80	0.63
2:B:201:GLN:O	2:B:205:LEU:HD23	1.98	0.62
2:C:473:THR:HG22	2:C:474:PHE:H	1.64	0.62
2:D:250:SER:O	2:D:344:LYS:NZ	2.32	0.62
2:D:386:THR:OG1	2:D:394:GLU:O	2.15	0.62
3:O:10:GLU:OE2	3:O:10:GLU:C	2.43	0.62
3:P:183:ILE:HD12	3:P:183:ILE:O	1.99	0.62
3:Q:283:TRP:CH2	4:f:4:VAL:HG23	2.34	0.62
1:1:176:ASP:O	1:1:176:ASP:OD1	2.17	0.62
1:4:97:ASN:OD1	1:4:98:GLY:N	2.32	0.62
1:7:381:ASN:O	1:7:385:ASN:OD1	2.17	0.62
2:K:455:ASN:O	2:K:455:ASN:ND2	2.30	0.62
4:b:116:ILE:HG21	4:b:173:LEU:HD12	1.81	0.62
4:b:443:THR:HG22	4:b:447:LEU:CD2	2.29	0.62
1:y:61:PHE:CE2	1:y:323:ASN:HB3	2.34	0.62
1:z:1:MET:SD	1:z:5:GLN:OE1	2.57	0.62
1:4:21:GLY:C	1:5:45:GLY:HA2	2.24	0.62
2:D:141:VAL:HA	2:D:424:MET:HE2	1.82	0.62
2:F:237:GLN:OE1	2:F:237:GLN:N	2.31	0.62
2:F:307:ASP:O	2:F:311:ALA:N	2.32	0.62
2:H:39:THR:C	2:H:40:ILE:HD12	2.24	0.62
2:J:502:VAL:HG11	2:K:150:TYR:HE2	1.64	0.62
4:n:189:THR:O	4:n:286:ASN:ND2	2.32	0.62
1:z:312:LEU:O	1:z:312:LEU:HD12	1.98	0.62
1:5:167:LYS:CB	1:5:177:SER:HB3	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:436:MET:N	2:B:436:MET:SD	2.64	0.62
2:C:134:ILE:HD12	2:C:135:GLY:N	2.14	0.62
2:C:306:ALA:HB1	2:C:328:PHE:HB2	1.81	0.62
3:S:8:MET:HB2	3:S:307:MET:HE3	1.81	0.62
4:c:53:ARG:O	4:c:57:ASN:ND2	2.32	0.62
2:C:156:LYS:HA	2:C:156:LYS:CE	2.30	0.62
2:E:275:LEU:HD12	2:E:284:LEU:HD12	1.81	0.62
2:F:68:ASP:O	2:F:72:THR:OG1	2.17	0.62
3:S:38:ASN:OD1	3:S:40:SER:N	2.32	0.62
4:c:429:VAL:HG12	4:c:433:PHE:CE2	2.34	0.62
4:e:387:GLU:OE1	4:e:387:GLU:C	2.42	0.62
4:k:151:ASN:N	4:k:154:GLU:OE1	2.32	0.62
2:C:303:LEU:HD23	2:C:304:ALA:N	2.15	0.62
4:b:10:LEU:CD1	4:c:29:ILE:HG21	2.27	0.62
1:w:79:GLN:O	1:w:96:ARG:NH2	2.31	0.62
1:w:168:THR:O	1:w:177:SER:CB	2.42	0.62
1:w:373:VAL:HA	1:w:376:ILE:HG22	1.80	0.62
1:z:375:MET:HE3	1:z:376:ILE:N	2.13	0.62
1:3:156:ILE:HD11	1:3:158:LEU:HD21	1.81	0.62
1:5:114:MET:N	1:5:114:MET:HE3	2.13	0.62
1:5:196:MET:HE1	1:5:214:ASP:HB2	1.82	0.62
1:7:10:LEU:HD22	1:7:382:TYR:CE1	2.35	0.62
2:C:275:LEU:HD12	2:C:284:LEU:CD1	2.29	0.62
3:R:298:GLN:CD	4:i:491:LEU:HD21	2.24	0.62
4:e:310:MET:HE2	4:e:310:MET:N	2.15	0.62
1:y:202:LYS:HE3	1:y:208:TRP:CZ3	2.35	0.62
1:5:296:ASN:OD1	1:5:356:LEU:N	2.33	0.62
2:B:235:LEU:O	2:B:242:ARG:NH1	2.30	0.62
2:F:519:ASP:HB3	3:T:314:GLN:HE21	1.64	0.62
3:O:308:GLN:OE1	3:O:308:GLN:C	2.43	0.62
3:T:10:GLU:OE1	3:T:10:GLU:N	2.33	0.62
3:U:30:MET:HG2	3:U:283:TRP:HZ3	1.64	0.62
4:a:488:GLN:OE1	4:o:471:ILE:HG21	1.99	0.62
4:i:29:ILE:HD11	4:i:466:MET:HE2	1.81	0.62
4:n:473:GLN:OE1	4:n:473:GLN:HA	1.99	0.62
1:w:139:ILE:HG21	1:w:292:TYR:HB3	1.82	0.62
1:2:116:LEU:HG	1:2:137:ILE:HD11	1.81	0.62
2:B:29:TYR:CG	2:B:518:LEU:HD11	2.34	0.62
2:G:436:MET:HE2	2:G:436:MET:HA	1.82	0.62
2:G:475:ASN:ND2	3:U:54:GLN:OE1	2.32	0.62
2:G:542:ALA:HB1	2:G:546:PHE:HZ	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:92:MET:HE1	2:I:488:LYS:HB2	1.82	0.62
2:K:543:ASN:O	2:K:547:ASP:OD1	2.18	0.62
3:M:65:ALA:HB1	3:M:164:VAL:CG1	2.30	0.62
3:O:82:GLN:OE1	3:O:82:GLN:HA	2.00	0.62
3:P:49:ALA:HB1	3:P:275:MET:HE1	1.81	0.62
4:a:491:LEU:C	4:a:491:LEU:HD13	2.24	0.62
4:h:396:ASP:OD1	4:h:396:ASP:N	2.33	0.62
4:i:155:THR:O	4:i:156:ILE:HD12	2.00	0.62
4:m:10:LEU:HD21	4:n:29:ILE:HG21	1.81	0.62
1:6:367:ASP:OD2	1:6:369:SER:OG	2.17	0.62
2:A:453:ASN:ND2	2:A:457:GLN:OE1	2.33	0.62
3:O:163:GLN:OE1	3:O:163:GLN:C	2.43	0.62
3:O:308:GLN:HE22	3:O:312:LEU:HD11	1.64	0.62
4:i:4:VAL:HB	4:i:9:SER:HB2	1.82	0.62
4:k:5:ILE:HD11	4:k:490:VAL:HG21	1.81	0.62
4:k:485:GLN:O	4:k:488:GLN:HG3	2.00	0.62
1:z:1:MET:CE	1:z:5:GLN:HE22	2.12	0.62
2:C:396:ASP:OD1	2:C:397:GLY:N	2.32	0.61
2:E:534:ALA:O	2:E:538:VAL:HG13	2.00	0.61
2:H:9:MET:HE1	2:H:12:LEU:CD2	2.29	0.61
2:J:4:LEU:H	2:J:4:LEU:HD12	1.65	0.61
3:Q:84:THR:HA	3:Q:87:ILE:HD11	1.82	0.61
3:Q:157:GLU:OE1	3:Q:157:GLU:N	2.32	0.61
4:e:224:ASP:HB2	4:e:275:ALA:HB2	1.81	0.61
4:f:225:ASP:OD1	4:f:226:THR:N	2.33	0.61
4:j:280:LYS:HE2	4:j:280:LYS:N	2.15	0.61
1:w:87:ASP:OD1	1:w:91:SER:N	2.32	0.61
1:4:164:VAL:HG23	1:4:202:LYS:O	1.99	0.61
1:9:314:GLN:C	1:9:315:ILE:HD13	2.25	0.61
3:O:276:SER:HA	4:c:5:ILE:HD11	1.81	0.61
4:b:301:VAL:O	4:b:301:VAL:HG13	2.00	0.61
1:y:104:GLU:N	1:y:104:GLU:OE2	2.34	0.61
1:y:157:ASN:OD1	1:y:275:ASN:N	2.32	0.61
1:5:10:LEU:HD13	1:5:385:ASN:HB2	1.82	0.61
1:6:230:LEU:HD12	1:6:238:LEU:CD1	2.30	0.61
1:1:114:MET:HE2	1:1:114:MET:N	2.16	0.61
1:2:277:VAL:HG23	1:2:277:VAL:O	2.00	0.61
2:B:300:GLN:HB2	2:B:360:ALA:HA	1.83	0.61
1:2:156:ILE:HD13	1:2:158:LEU:HD21	1.81	0.61
2:B:305:PHE:O	2:B:306:ALA:C	2.44	0.61
2:C:467:VAL:HG23	2:C:468:VAL:HG23	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:306:ALA:HB1	2:G:328:PHE:HB2	1.81	0.61
3:V:54:GLN:OE1	3:V:54:GLN:C	2.44	0.61
4:b:321:ASP:OD1	4:b:322:GLY:N	2.33	0.61
4:b:336:THR:HG23	4:b:344:SER:OG	2.00	0.61
1:x:114:MET:N	1:x:114:MET:HE3	2.16	0.61
2:G:166:VAL:HG13	2:G:244:LEU:CD1	2.30	0.61
2:J:235:LEU:O	2:J:242:ARG:NH1	2.31	0.61
3:O:66:ARG:NE	3:O:261:ASP:OD1	2.33	0.61
3:Q:6:GLN:N	3:Q:8:MET:SD	2.74	0.61
3:T:195:ASP:OD1	3:T:196:SER:N	2.34	0.61
1:x:289:LEU:HG	1:x:303:ASN:O	1.99	0.61
1:z:288:ASP:OD1	1:z:289:LEU:N	2.33	0.61
1:3:234:GLU:OE2	1:3:234:GLU:N	2.27	0.61
1:7:271:THR:HG21	2:K:254:THR:HG23	1.83	0.61
1:9:281:GLN:NE2	1:9:283:GLY:O	2.33	0.61
2:H:98:LEU:CD1	2:H:99:LEU:HD22	2.31	0.61
3:L:302:LYS:HE2	3:M:315:LEU:HD12	1.83	0.61
4:f:3:GLN:HB2	4:f:6:ASN:HD22	1.63	0.61
1:w:161:THR:C	1:w:162:ASP:CG	2.68	0.61
1:1:111:MET:HE2	1:1:111:MET:N	2.15	0.61
1:2:193:ALA:N	1:2:285:LYS:HZ2	1.99	0.61
2:A:195:PRO:O	2:A:198:LEU:CD2	2.49	0.61
3:M:120:GLN:O	3:M:124:LEU:CD2	2.49	0.61
3:M:183:ILE:C	3:M:183:ILE:HD12	2.26	0.61
3:P:44:ILE:H	3:P:44:ILE:HD12	1.65	0.61
3:S:16:ILE:HD13	3:S:301:TYR:HE1	1.65	0.61
4:i:38:ILE:O	4:i:38:ILE:HG23	1.99	0.61
4:i:345:ILE:HD11	4:i:361:LEU:HD22	1.82	0.61
4:m:171:ASP:OD1	4:m:172:THR:N	2.33	0.61
4:n:110:ASP:OD1	4:n:176:GLN:NE2	2.33	0.61
1:x:36:THR:O	1:x:58:THR:N	2.29	0.61
1:3:186:VAL:H	1:3:196:MET:HE1	1.65	0.61
2:B:26:ILE:HG21	3:O:303:THR:HG21	1.82	0.61
2:B:533:LEU:HD21	3:O:313:PHE:CE2	2.36	0.61
3:N:223:GLU:OE1	3:N:223:GLU:C	2.44	0.61
4:b:3:GLN:HB2	4:b:6:ASN:HB2	1.82	0.61
4:f:3:GLN:HB2	4:f:6:ASN:CB	2.31	0.61
4:f:468:ARG:O	4:f:472:LEU:HD12	2.01	0.61
1:z:77:ILE:HD13	1:z:96:ARG:HD3	1.81	0.61
1:3:154:MET:HE1	1:3:156:ILE:HB	1.82	0.61
1:4:22:ASN:N	1:5:45:GLY:HA2	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:7:101:LYS:NZ	1:7:102:LEU:O	2.33	0.61
2:F:446:VAL:O	2:F:446:VAL:HG12	2.00	0.61
2:F:537:GLN:O	2:F:541:THR:HG23	2.01	0.61
2:H:36:ARG:NH1	2:H:515:GLY:O	2.34	0.61
3:O:165:ASP:OD1	3:O:166:SER:N	2.34	0.61
4:g:330:ASP:C	4:g:330:ASP:OD1	2.43	0.61
2:G:162:ILE:O	2:G:166:VAL:HG23	2.01	0.60
2:K:43:GLN:OE1	2:K:43:GLN:N	2.34	0.60
3:V:289:SER:O	3:V:293:GLN:NE2	2.34	0.60
4:i:471:ILE:HD11	4:k:5:ILE:HD12	1.83	0.60
1:2:280:ASN:OD1	1:2:281:GLN:N	2.35	0.60
1:4:154:MET:HE1	1:4:183:THR:H	1.66	0.60
1:4:206:ASN:ND2	1:4:232:PHE:O	2.34	0.60
2:H:551:ASN:OD1	2:H:552:ILE:N	2.35	0.60
3:O:80:LEU:HB3	3:O:247:ARG:HD3	1.83	0.60
3:V:103:SER:OG	3:V:105:ASP:OD1	2.17	0.60
4:e:4:VAL:O	4:e:5:ILE:C	2.44	0.60
4:l:321:ASP:OD1	4:l:322:GLY:N	2.34	0.60
1:5:167:LYS:HB3	1:5:177:SER:HB3	1.82	0.60
1:6:77:ILE:HD13	1:6:96:ARG:HG2	1.84	0.60
1:8:69:THR:OG1	1:8:74:ASP:OD2	2.14	0.60
2:E:68:ASP:OD2	2:E:71:ILE:HD12	2.00	0.60
2:E:118:GLN:HA	2:E:121:VAL:CG1	2.30	0.60
2:I:95:ILE:HD13	2:I:150:TYR:OH	2.01	0.60
1:w:368:LEU:HD11	1:w:372:LEU:HD13	1.83	0.60
1:3:17:LEU:HA	1:3:20:ILE:HG22	1.82	0.60
1:3:200:PHE:CD2	1:3:210:VAL:HG22	2.36	0.60
2:A:310:ASN:ND2	2:A:328:PHE:HB2	2.14	0.60
2:C:467:VAL:HG23	2:C:468:VAL:N	2.16	0.60
3:V:287:ILE:HG21	4:n:494:LEU:CD1	2.25	0.60
3:V:289:SER:C	3:V:293:GLN:HE22	2.09	0.60
4:n:10:LEU:H	4:n:10:LEU:HD12	1.66	0.60
4:n:180:LYS:HZ2	4:n:180:LYS:HB3	1.66	0.60
1:z:1:MET:SD	1:z:5:GLN:CD	2.84	0.60
1:8:373:VAL:O	1:8:376:ILE:HG22	2.00	0.60
2:C:303:LEU:HD22	2:C:358:VAL:HG21	1.83	0.60
2:J:520:GLU:OE2	2:J:524:ASN:ND2	2.35	0.60
4:l:451:ARG:NH1	4:l:455:GLU:OE2	2.33	0.60
4:n:310:MET:HE2	4:n:310:MET:H	1.66	0.60
1:y:370:LYS:HE3	1:y:370:LYS:CA	2.29	0.60
2:I:35:THR:HG21	2:I:67:TYR:HB3	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:113:PHE:O	2:J:116:SER:OG	2.18	0.60
3:M:65:ALA:HB1	3:M:164:VAL:HG11	1.84	0.60
3:N:301:TYR:O	3:N:305:THR:HG23	2.00	0.60
4:c:175:VAL:O	4:c:175:VAL:HG22	2.02	0.60
2:B:2:SER:O	2:B:5:ILE:CD1	2.50	0.60
2:E:271:PRO:HD2	2:E:274:LEU:HB3	1.84	0.60
2:G:533:LEU:HD23	2:G:533:LEU:C	2.25	0.60
2:G:540:GLN:HE21	2:G:541:THR:CG2	2.14	0.60
3:M:15:GLY:HA2	3:M:18:ASN:OD1	2.02	0.60
3:N:8:MET:HE1	3:N:307:MET:CE	2.31	0.60
3:R:8:MET:HE1	3:R:9:TYR:CE1	2.36	0.60
3:S:287:ILE:HD12	3:S:290:TYR:CD1	2.37	0.60
1:x:289:LEU:HB2	1:x:304:TYR:CE2	2.36	0.60
1:3:62:THR:O	2:B:51:GLY:N	2.34	0.60
1:5:358:ASN:OD1	1:5:359:GLY:N	2.34	0.60
1:8:10:LEU:HD22	1:8:382:TYR:CE1	2.37	0.60
2:B:82:SER:O	2:B:86:THR:HG23	2.01	0.60
2:E:118:GLN:C	2:E:121:VAL:HG12	2.26	0.60
2:I:98:LEU:HD22	2:I:150:TYR:CE2	2.37	0.60
3:O:168:ARG:NE	3:O:170:MET:HE1	2.17	0.60
1:8:231:LYS:O	1:8:238:LEU:HD23	2.02	0.60
2:A:453:ASN:CG	2:A:457:GLN:OE1	2.45	0.60
2:F:124:ALA:HA	2:F:436:MET:HE1	1.83	0.60
3:M:259:THR:O	3:M:262:SER:OG	2.19	0.60
1:5:289:LEU:C	1:5:289:LEU:HD23	2.27	0.60
1:6:32:PHE:HE2	1:8:43:PHE:CZ	2.19	0.60
1:7:104:GLU:OE2	1:7:104:GLU:N	2.35	0.60
2:G:476:ASP:OD1	2:G:476:ASP:N	2.22	0.60
3:M:164:VAL:HG22	3:M:170:MET:HE3	1.84	0.60
3:M:284:ASN:HA	3:M:287:ILE:HG22	1.84	0.60
3:N:312:LEU:HD22	3:N:312:LEU:C	2.26	0.60
3:P:20:GLN:OE1	3:P:297:LEU:HG	2.01	0.60
3:P:157:GLU:OE1	3:P:157:GLU:N	2.31	0.60
3:P:219:ASN:O	3:P:221:GLU:N	2.34	0.60
4:a:331:ASP:OD2	4:a:363:LYS:NZ	2.34	0.60
4:f:494:LEU:O	4:f:494:LEU:HD12	2.02	0.60
4:k:289:LEU:HD11	4:k:307:VAL:HG23	1.83	0.60
1:6:331:ASP:O	1:6:333:VAL:HG23	2.01	0.59
1:7:112:GLN:OE1	1:7:112:GLN:O	2.20	0.59
1:7:357:THR:HG21	2:J:45:ASN:ND2	2.16	0.59
2:D:239:SER:O	2:D:239:SER:OG	2.15	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:229:MET:HG2	2:E:230:ALA:H	1.66	0.59
3:M:187:ALA:HB1	3:M:238:ASN:ND2	2.17	0.59
3:N:287:ILE:HD12	4:b:494:LEU:HD23	1.83	0.59
3:S:181:ASN:OD1	3:S:199:ASN:ND2	2.33	0.59
4:f:5:ILE:HA	4:f:8:ASN:ND2	2.17	0.59
4:f:82:LEU:HD11	4:f:422:LEU:HD12	1.83	0.59
1:w:94:TYR:O	1:w:334:TRP:N	2.33	0.59
1:w:171:SER:CB	1:w:174:ASP:HB2	2.32	0.59
1:l:42:MET:CG	1:l:42:MET:O	2.49	0.59
2:B:297:THR:HA	2:B:360:ALA:HB1	1.83	0.59
2:D:314:THR:HG23	2:D:314:THR:O	2.01	0.59
2:F:447:ASP:OD2	3:T:140:LYS:NZ	2.33	0.59
2:G:250:SER:N	2:G:269:GLU:OE2	2.34	0.59
3:M:200:LEU:HA	3:M:203:MET:SD	2.42	0.59
4:b:4:VAL:HG22	4:b:8:ASN:ND2	2.17	0.59
1:3:250:THR:OG1	1:3:255:THR:O	2.17	0.59
2:A:121:VAL:HG21	2:A:460:LEU:CG	2.33	0.59
2:E:326:ASP:OD2	2:E:427:LYS:NZ	2.33	0.59
2:E:476:ASP:O	2:E:480:THR:HG23	2.02	0.59
2:H:158:VAL:O	2:H:162:ILE:HD13	2.02	0.59
2:J:143:GLN:HA	2:J:143:GLN:OE1	2.01	0.59
2:K:546:PHE:CZ	2:K:550:LEU:HD21	2.38	0.59
3:T:315:LEU:O	3:T:315:LEU:HD13	2.01	0.59
4:a:10:LEU:H	4:a:10:LEU:HD22	1.68	0.59
4:g:183:ASP:HB3	4:g:310:MET:HE1	1.84	0.59
4:l:490:VAL:HG13	4:l:494:LEU:HD21	1.84	0.59
4:o:91:ARG:NH1	4:o:94:GLU:OE1	2.33	0.59
2:B:487:ASN:ND2	2:C:131:GLN:HG3	2.18	0.59
3:Q:22:GLU:C	3:Q:22:GLU:OE1	2.45	0.59
3:R:38:ASN:O	3:R:40:SER:N	2.36	0.59
4:f:21:SER:OG	4:f:473:GLN:NE2	2.34	0.59
4:m:101:ASN:ND2	4:m:103:THR:OG1	2.36	0.59
1:w:297:ASP:O	1:w:314:GLN:NE2	2.36	0.59
1:z:159:ASN:OD1	1:z:161:THR:OG1	2.18	0.59
1:6:331:ASP:HB3	1:8:40:ALA:HB1	1.84	0.59
2:A:169:ILE:CG1	2:A:212:ILE:HG21	2.32	0.59
2:C:9:MET:SD	2:C:9:MET:C	2.86	0.59
2:C:351:LYS:O	2:C:399:LYS:N	2.34	0.59
2:H:118:GLN:C	2:H:118:GLN:OE1	2.46	0.59
2:I:354:ASP:OD1	2:I:355:SER:N	2.35	0.59
3:Q:35:ARG:CZ	3:Q:42:ASP:OD2	2.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:168:ARG:HG2	3:Q:170:MET:HE2	1.84	0.59
4:j:151:ASN:N	4:j:154:GLU:OE1	2.35	0.59
1:z:154:MET:HE2	1:z:276:ILE:CD1	2.33	0.59
1:8:18:ASP:OD2	1:w:48:VAL:HG11	2.03	0.59
2:D:1:MET:SD	2:D:3:SER:N	2.75	0.59
2:J:120:LEU:HD22	2:J:436:MET:CE	2.32	0.59
2:K:537:GLN:O	2:K:541:THR:HG23	2.03	0.59
3:R:30:MET:HE1	3:R:283:TRP:CZ3	2.36	0.59
3:S:251:GLY:HA3	4:i:41:ALA:HB1	1.84	0.59
3:T:170:MET:HE1	3:T:253:GLN:HB3	1.85	0.59
3:U:289:SER:CA	3:U:292:MET:HE2	2.33	0.59
4:m:105:SER:OG	4:m:108:ASP:OD1	2.19	0.59
4:n:309:LYS:NZ	4:n:322:GLY:O	2.30	0.59
4:n:494:LEU:HD13	4:n:494:LEU:C	2.27	0.59
4:o:422:LEU:HD13	4:o:426:LEU:HD23	1.85	0.59
1:w:385:ASN:O	1:w:388:THR:OG1	2.15	0.59
1:7:184:VAL:HG13	1:7:196:MET:HB3	1.84	0.59
2:B:518:LEU:O	2:B:521:GLU:N	2.34	0.59
2:E:216:GLU:OE2	2:E:218:SER:N	2.35	0.59
2:I:97:ASN:OD1	2:I:98:LEU:N	2.35	0.59
2:J:186:MET:N	2:J:186:MET:HE3	2.18	0.59
3:O:103:SER:OG	3:O:105:ASP:OD1	2.21	0.59
3:S:16:ILE:HD12	3:S:16:ILE:O	2.03	0.59
1:5:206:ASN:ND2	1:5:232:PHE:O	2.35	0.59
2:C:150:TYR:CE1	2:C:154:GLN:OE1	2.55	0.59
2:C:150:TYR:O	2:C:154:GLN:HG2	2.02	0.59
2:H:48:LEU:HB3	2:I:186:MET:HE1	1.83	0.59
4:c:463:VAL:HG11	4:d:493:LEU:HD11	1.85	0.59
4:f:468:ARG:HG2	4:f:472:LEU:CD1	2.32	0.59
4:n:108:ASP:N	4:n:108:ASP:OD1	2.34	0.59
1:z:375:MET:CE	1:z:379:GLN:HG3	2.33	0.59
2:A:352:VAL:HG22	2:A:398:LEU:CD1	2.33	0.59
2:B:387:LYS:NZ	2:B:389:ALA:O	2.35	0.59
2:H:298:LEU:HD23	2:H:298:LEU:O	2.03	0.59
2:J:124:ALA:HB1	2:J:436:MET:SD	2.43	0.59
3:L:114:LEU:HA	3:L:117:ILE:HD13	1.85	0.59
3:L:118:ARG:NH2	3:L:148:GLN:O	2.36	0.59
3:L:269:LEU:O	3:L:273:LEU:HD13	2.03	0.59
3:P:20:GLN:NE2	3:P:301:TYR:OH	2.35	0.59
3:S:16:ILE:HD13	3:S:301:TYR:CE1	2.38	0.59
4:f:453:ARG:NE	4:f:453:ARG:HA	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:278:ALA:O	1:2:279:THR:HG23	2.03	0.59
1:3:87:ASP:OD1	1:3:91:SER:N	2.36	0.59
1:6:278:ALA:O	1:6:279:THR:OG1	2.17	0.59
1:9:186:VAL:HG22	1:9:196:MET:HE1	1.84	0.59
3:O:263:LEU:O	3:O:263:LEU:HD22	2.02	0.59
3:U:289:SER:O	3:U:292:MET:HE2	2.03	0.59
4:e:225:ASP:OD1	4:e:226:THR:N	2.36	0.59
4:o:491:LEU:O	4:o:494:LEU:N	2.33	0.59
1:x:182:GLY:O	1:x:198:VAL:N	2.36	0.59
1:y:285:LYS:NZ	1:y:286:PRO:O	2.35	0.59
1:6:375:MET:CE	1:8:388:THR:HA	2.33	0.58
2:A:30:ASN:ND2	2:K:531:TYR:HE2	2.01	0.58
2:B:214:GLY:O	2:B:229:MET:HE1	2.03	0.58
2:E:541:THR:HG21	1:y:375:MET:SD	2.43	0.58
2:I:357:LYS:O	2:I:359:GLN:NE2	2.36	0.58
2:K:134:ILE:HD11	2:K:434:ILE:HD11	1.84	0.58
3:L:83:VAL:HG23	3:L:124:LEU:HD23	1.84	0.58
3:M:14:SER:O	3:M:18:ASN:OD1	2.21	0.58
3:R:122:MET:SD	3:R:148:GLN:HA	2.42	0.58
3:S:274:GLN:O	3:S:278:LEU:CD2	2.50	0.58
4:d:351:THR:HB	4:d:390:ASN:HA	1.84	0.58
1:1:101:LYS:HG2	1:1:111:MET:HE1	1.84	0.58
1:3:87:ASP:OD1	1:3:91:SER:CB	2.51	0.58
1:5:380:ARG:HA	1:5:380:ARG:NE	2.18	0.58
2:D:25:ASN:HD21	2:D:516:VAL:HG22	1.68	0.58
2:J:540:GLN:CD	2:J:540:GLN:C	2.70	0.58
3:N:76:GLU:OE1	3:N:250:LEU:HD21	2.02	0.58
3:R:274:GLN:O	3:R:278:LEU:HD22	2.03	0.58
4:k:348:THR:C	4:k:349:LYS:HZ2	2.10	0.58
1:z:159:ASN:ND2	1:z:271:THR:O	2.36	0.58
1:7:17:LEU:CD2	1:7:375:MET:HE1	2.32	0.58
2:C:304:ALA:HB3	2:C:468:VAL:HG22	1.85	0.58
2:F:40:ILE:HD12	2:F:40:ILE:C	2.29	0.58
2:J:37:GLN:OE1	2:J:196:ASN:ND2	2.36	0.58
2:J:169:ILE:HD11	2:J:212:ILE:HG21	1.86	0.58
3:M:301:TYR:HE1	4:o:493:LEU:HD22	1.68	0.58
3:Q:272:LYS:HB3	4:f:5:ILE:HG13	1.85	0.58
3:Q:275:MET:SD	3:Q:276:SER:N	2.76	0.58
3:R:16:ILE:HG22	3:R:300:SER:HB3	1.84	0.58
4:l:32:LEU:CD2	4:l:466:MET:HE1	2.33	0.58
1:4:30:TYR:CG	1:4:361:LEU:HD13	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:34:SER:HB3	1:5:366:VAL:HG22	1.85	0.58
2:F:75:LEU:CA	2:F:506:LEU:HD13	2.32	0.58
2:I:122:SER:OG	3:L:162:GLN:NE2	2.36	0.58
4:m:32:LEU:CD2	4:m:459:TYR:CD1	2.86	0.58
4:n:482:GLN:O	4:n:486:VAL:HG13	2.03	0.58
1:6:6:ALA:HB2	1:6:388:THR:HB	1.86	0.58
2:C:473:THR:HG22	2:C:474:PHE:N	2.19	0.58
2:K:90:GLU:OE2	2:K:94:LYS:NZ	2.35	0.58
3:M:24:MET:HA	4:o:10:LEU:HD12	1.85	0.58
3:S:45:ALA:O	3:S:49:ALA:N	2.37	0.58
3:T:118:ARG:NH1	3:T:205:ASP:OD1	2.36	0.58
4:j:406:GLU:OE2	4:j:406:GLU:N	2.29	0.58
4:k:458:ASP:OD2	4:k:461:THR:OG1	2.19	0.58
1:4:159:ASN:HA	1:4:272:GLY:HA2	1.86	0.58
1:6:230:LEU:HD12	1:6:238:LEU:HD13	1.86	0.58
1:8:43:PHE:CG	1:8:48:VAL:O	2.57	0.58
2:D:47:THR:O	2:D:56:ASN:ND2	2.27	0.58
2:D:434:ILE:H	2:D:434:ILE:HD12	1.68	0.58
2:F:431:GLU:OE1	3:S:185:SER:OG	2.08	0.58
3:N:186:ASN:CG	3:N:186:ASN:O	2.46	0.58
3:R:298:GLN:OE1	4:i:491:LEU:HD21	2.03	0.58
4:c:86:ASN:ND2	4:d:52:ASN:OD1	2.36	0.58
1:x:17:LEU:HD12	1:y:2:SER:HB3	1.84	0.58
1:1:3:PHE:O	1:1:7:VAL:HG23	2.03	0.58
1:1:399:LEU:CD2	1:z:386:ALA:HB1	2.31	0.58
1:6:32:PHE:HE2	1:8:43:PHE:HZ	1.52	0.58
1:6:154:MET:SD	1:6:279:THR:HG23	2.43	0.58
1:6:186:VAL:HG22	1:6:196:MET:SD	2.44	0.58
2:D:423:ASP:O	2:D:425:ASN:ND2	2.37	0.58
2:F:9:MET:CE	2:F:13:ASN:OD1	2.51	0.58
2:F:36:ARG:NH1	2:F:515:GLY:O	2.37	0.58
2:G:262:ASP:OD2	2:G:266:GLY:N	2.36	0.58
3:N:289:SER:O	3:N:292:MET:HE2	2.03	0.58
3:R:298:GLN:HE22	4:i:491:LEU:HD21	1.68	0.58
3:S:122:MET:HE1	3:S:146:PHE:HB3	1.86	0.58
3:S:269:LEU:O	3:S:273:LEU:HD13	2.03	0.58
3:V:16:ILE:HD11	3:V:20:GLN:NE2	2.19	0.58
3:V:269:LEU:O	3:V:273:LEU:HD13	2.03	0.58
4:j:171:ASP:OD1	4:j:172:THR:N	2.37	0.58
4:l:57:ASN:O	4:l:61:LEU:HD23	2.03	0.58
4:m:364:LEU:O	4:m:364:LEU:HD23	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:y:130:GLN:OE1	1:y:130:GLN:O	2.20	0.58
1:1:42:MET:SD	1:1:50:LEU:HB2	2.43	0.58
1:7:94:TYR:O	1:7:334:TRP:N	2.34	0.58
2:E:156:LYS:HA	2:E:156:LYS:CE	2.25	0.58
2:E:311:ALA:O	2:E:315:LYS:NZ	2.35	0.58
2:I:179:LEU:O	2:I:183:ILE:HG23	2.04	0.58
2:I:308:ALA:O	2:I:311:ALA:HB3	2.04	0.58
3:P:283:TRP:N	4:e:2:ALA:O	2.37	0.58
4:c:69:ASN:O	4:c:72:ILE:HG22	2.03	0.58
4:c:79:GLU:OE1	4:c:83:ASN:ND2	2.35	0.58
4:f:368:ASP:OD1	4:f:368:ASP:N	2.34	0.58
4:n:280:LYS:HE3	4:n:280:LYS:HA	1.85	0.58
1:4:74:ASP:HB2	1:4:361:LEU:HD21	1.86	0.58
2:B:368:ASP:OD2	2:B:373:GLN:NE2	2.33	0.58
2:C:290:ASP:OD2	2:C:488:LYS:NZ	2.30	0.58
2:F:106:LEU:CD2	2:F:143:GLN:HG3	2.33	0.58
3:S:284:ASN:O	3:S:287:ILE:HG22	2.04	0.58
4:a:189:THR:O	4:a:286:ASN:ND2	2.34	0.58
4:f:3:GLN:CB	4:f:6:ASN:CB	2.82	0.58
4:m:256:GLU:N	4:m:256:GLU:OE2	2.37	0.58
1:w:144:MET:SD	1:w:284:TYR:HE1	2.25	0.58
1:3:71:ARG:NH2	1:3:74:ASP:OD1	2.37	0.58
1:4:19:VAL:HG23	1:4:20:ILE:N	2.18	0.58
1:6:330:GLY:O	1:8:43:PHE:HB2	2.03	0.58
1:8:255:THR:HG23	1:9:234:GLU:CB	2.33	0.58
1:9:382:TYR:CE1	1:x:399:LEU:HD22	2.39	0.58
2:A:120:LEU:HG	2:A:436:MET:HE2	1.85	0.58
2:F:26:ILE:HD11	3:S:299:ALA:CB	2.24	0.58
3:N:281:VAL:O	3:N:282:ASP:C	2.43	0.58
3:Q:230:ASP:OD2	3:Q:234:ARG:NH2	2.36	0.58
3:R:20:GLN:HG3	3:R:24:MET:CE	2.34	0.58
3:V:289:SER:C	3:V:293:GLN:NE2	2.61	0.58
4:a:188:VAL:HG13	4:a:188:VAL:O	2.04	0.58
4:e:194:THR:HG21	4:e:284:VAL:HG13	1.86	0.58
4:f:5:ILE:O	4:f:9:SER:N	2.37	0.58
4:l:225:ASP:OD1	4:l:226:THR:N	2.37	0.58
2:A:195:PRO:HG3	2:K:47:THR:HG23	1.84	0.57
2:B:304:ALA:HB1	2:B:468:VAL:HG22	1.83	0.57
2:C:341:ASN:CG	2:C:410:ASP:OD1	2.46	0.57
2:D:141:VAL:HG22	2:D:424:MET:CE	2.32	0.57
3:O:26:LEU:HD13	3:O:290:TYR:HA	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:282:ASP:OD1	4:f:2:ALA:CA	2.46	0.57
3:S:8:MET:SD	3:S:8:MET:N	2.67	0.57
4:e:152:ASP:OD1	4:e:152:ASP:N	2.37	0.57
4:h:485:GLN:OE1	4:h:485:GLN:HA	2.04	0.57
4:n:203:PHE:CZ	4:n:234:VAL:HG21	2.39	0.57
2:B:518:LEU:H	2:B:518:LEU:HD22	1.69	0.57
2:I:112:SER:O	2:I:115:THR:OG1	2.20	0.57
3:L:122:MET:O	3:L:122:MET:HE3	2.04	0.57
3:O:299:ALA:O	3:O:303:THR:HG23	2.03	0.57
4:f:399:GLU:N	4:f:399:GLU:OE2	2.37	0.57
4:n:354:ASP:OD1	4:n:355:GLY:N	2.36	0.57
1:3:375:MET:CE	2:A:541:THR:HB	2.34	0.57
2:F:527:ARG:CZ	2:G:29:TYR:CZ	2.87	0.57
2:G:333:PRO:HG2	2:G:398:LEU:HD11	1.86	0.57
2:G:540:GLN:HE21	2:G:541:THR:HG23	1.69	0.57
2:H:153:ASP:O	2:H:157:GLN:OE1	2.22	0.57
2:I:130:ARG:NH1	2:I:431:GLU:O	2.36	0.57
3:M:65:ALA:CB	3:M:164:VAL:CG1	2.83	0.57
3:O:203:MET:HE1	3:O:235:GLY:HA3	1.86	0.57
4:b:68:ALA:O	4:b:72:ILE:HD12	2.04	0.57
4:f:171:ASP:N	4:f:171:ASP:OD1	2.37	0.57
4:o:31:ARG:NE	4:o:462:GLU:OE2	2.38	0.57
2:B:65:ARG:NH2	2:B:67:TYR:CD1	2.72	0.57
2:E:29:TYR:OH	2:E:516:VAL:O	2.15	0.57
2:F:516:VAL:N	3:T:4:SER:OG	2.38	0.57
2:I:169:ILE:HD11	2:I:280:LEU:HD11	1.86	0.57
2:I:518:LEU:HD22	2:I:518:LEU:H	1.69	0.57
2:J:301:LEU:HD11	2:J:477:ALA:HB3	1.86	0.57
3:M:14:SER:O	3:M:17:THR:HG22	2.03	0.57
3:Q:87:ILE:HD13	3:Q:240:LEU:HD13	1.85	0.57
3:S:24:MET:C	3:S:24:MET:SD	2.87	0.57
3:S:219:ASN:O	3:S:221:GLU:N	2.37	0.57
3:S:284:ASN:HA	3:S:287:ILE:HG22	1.85	0.57
3:V:106:ASP:O	3:V:109:SER:OG	2.19	0.57
4:f:475:ALA:O	4:f:479:VAL:HG12	2.05	0.57
4:n:494:LEU:HD13	4:n:494:LEU:O	2.05	0.57
1:x:67:THR:N	1:x:361:LEU:O	2.38	0.57
1:x:250:THR:C	1:x:251:ILE:HD12	2.29	0.57
1:5:1:MET:SD	1:5:2:SER:N	2.77	0.57
1:5:5:GLN:NE2	1:5:385:ASN:OD1	2.33	0.57
1:5:45:GLY:O	1:5:52:VAL:CG2	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:6:170:PHE:C	1:6:170:PHE:CD2	2.82	0.57
2:H:419:ASN:O	2:H:422:VAL:HG12	2.05	0.57
2:I:450:ASP:CG	3:L:142:GLU:OE2	2.48	0.57
2:J:173:ALA:HB1	2:J:241:ALA:HB1	1.87	0.57
3:M:142:GLU:OE1	3:M:142:GLU:N	2.33	0.57
3:O:85:THR:O	3:O:89:THR:HG23	2.05	0.57
4:d:493:LEU:O	4:d:493:LEU:HD13	2.03	0.57
4:f:6:ASN:O	4:f:7:THR:C	2.47	0.57
4:f:488:GLN:OE1	4:f:488:GLN:HA	2.04	0.57
4:j:91:ARG:O	4:j:95:LEU:HD23	2.05	0.57
1:2:208:TRP:N	1:2:230:LEU:O	2.35	0.57
2:E:395:ILE:HD13	2:E:400:VAL:HG21	1.87	0.57
2:J:210:ASN:HA	2:J:215:VAL:HG12	1.86	0.57
2:J:543:ASN:HA	2:J:546:PHE:CZ	2.39	0.57
2:K:519:ASP:N	2:K:519:ASP:OD1	2.33	0.57
3:P:20:GLN:OE1	3:P:297:LEU:HD21	2.04	0.57
4:i:399:GLU:N	4:i:399:GLU:OE2	2.37	0.57
4:l:296:LEU:HD22	4:l:301:VAL:CB	2.34	0.57
1:5:111:MET:SD	1:5:112:GLN:N	2.77	0.57
1:5:368:LEU:O	1:5:372:LEU:HD22	2.05	0.57
2:B:301:LEU:HD22	2:B:477:ALA:CB	2.35	0.57
2:D:301:LEU:HD23	2:D:301:LEU:C	2.29	0.57
2:F:26:ILE:CD1	3:S:299:ALA:HB1	2.25	0.57
2:I:124:ALA:O	2:I:436:MET:HE1	2.04	0.57
3:O:35:ARG:NH1	3:O:278:LEU:O	2.34	0.57
3:Q:16:ILE:CD1	3:Q:300:SER:HB2	2.33	0.57
3:S:83:VAL:O	3:S:87:ILE:HD12	2.05	0.57
3:T:275:MET:HE2	3:T:279:VAL:CG1	2.34	0.57
3:V:92:GLU:CD	4:n:63:GLN:HB2	2.29	0.57
4:f:3:GLN:CB	4:f:6:ASN:HB3	2.34	0.57
4:i:475:ALA:O	4:i:479:VAL:HG13	2.05	0.57
4:m:10:LEU:CG	4:n:29:ILE:HG21	2.34	0.57
1:w:154:MET:SD	1:w:278:ALA:O	2.62	0.57
1:w:156:ILE:HG12	1:w:158:LEU:HD12	1.86	0.57
1:5:42:MET:HG3	1:5:47:LYS:HB3	1.86	0.57
1:6:82:PHE:CE2	1:6:334:TRP:CD1	2.92	0.57
1:8:71:ARG:HD2	1:8:74:ASP:OD1	2.04	0.57
2:D:441:LYS:O	2:D:441:LYS:HD2	2.04	0.57
2:E:473:THR:HB	2:E:476:ASP:OD1	2.05	0.57
2:H:42:ALA:O	2:H:59:TYR:N	2.35	0.57
2:H:365:ILE:O	2:H:412:PHE:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:170:MET:HE3	3:P:253:GLN:CG	2.35	0.57
4:g:314:ASP:OD1	4:g:314:ASP:C	2.48	0.57
4:j:314:ASP:OD1	4:j:318:LYS:N	2.37	0.57
4:n:180:LYS:HE3	4:n:313:THR:HB	1.86	0.57
1:y:43:PHE:HA	1:y:49:GLY:HA2	1.87	0.57
1:y:59:GLN:HB2	1:y:61:PHE:CE1	2.40	0.57
1:1:399:LEU:HD21	1:z:386:ALA:CB	2.32	0.57
1:5:20:ILE:HD11	1:5:371:GLU:HA	1.87	0.57
1:7:399:LEU:HD13	1:7:399:LEU:C	2.30	0.57
2:A:392:LYS:HE3	2:A:401:THR:HG23	1.87	0.57
2:C:65:ARG:NE	2:C:196:ASN:ND2	2.53	0.57
2:E:92:MET:HE1	2:E:290:ASP:HB3	1.86	0.57
2:I:303:LEU:HD23	2:I:303:LEU:C	2.30	0.57
2:J:170:ASN:C	2:J:174:LYS:HZ3	2.13	0.57
3:N:77:GLU:OE1	3:N:77:GLU:O	2.23	0.57
3:P:223:GLU:OE2	3:P:223:GLU:N	2.30	0.57
4:e:169:GLY:C	4:e:170:LEU:HD12	2.30	0.57
4:h:415:ALA:O	4:h:419:VAL:HG23	2.05	0.57
1:2:192:ASN:HA	1:2:285:LYS:HZ1	1.70	0.57
2:G:187:THR:HA	2:G:194:SER:OG	2.04	0.57
2:H:237:GLN:OE1	1:w:185:THR:OG1	2.22	0.57
2:J:258:VAL:HG22	2:J:270:ILE:O	2.04	0.57
3:O:186:ASN:CG	3:O:186:ASN:O	2.48	0.57
3:P:273:LEU:HD23	3:P:273:LEU:C	2.30	0.57
4:b:152:ASP:OD1	4:b:152:ASP:N	2.38	0.57
4:c:429:VAL:HG12	4:c:433:PHE:HE2	1.68	0.57
4:h:468:ARG:HD2	4:h:472:LEU:HD12	1.86	0.57
1:w:170:PHE:O	1:w:171:SER:CB	2.53	0.57
1:w:347:THR:HG23	1:w:350:SER:OG	2.05	0.57
1:x:17:LEU:HD13	1:x:17:LEU:C	2.30	0.57
1:3:116:LEU:HD11	1:3:315:ILE:HG13	1.87	0.56
1:4:169:PRO:HG2	1:4:224:THR:HG22	1.87	0.56
2:C:131:GLN:OE1	2:C:134:ILE:HD11	2.04	0.56
2:E:215:VAL:HG23	2:E:215:VAL:O	2.05	0.56
2:K:98:LEU:HD21	2:K:150:TYR:HD2	1.70	0.56
2:K:125:GLU:OE1	2:K:125:GLU:N	2.35	0.56
2:K:363:TYR:O	2:K:413:LEU:HD12	2.05	0.56
3:M:179:ILE:O	3:M:242:ASN:ND2	2.38	0.56
3:T:23:TRP:NE1	3:T:294:GLN:HE21	2.02	0.56
4:d:480:LEU:O	4:d:484:ASN:OD1	2.23	0.56
2:B:94:LYS:O	2:B:98:LEU:HD22	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:220:GLN:OE1	2:B:224:THR:OG1	2.23	0.56
2:B:541:THR:O	2:B:545:LEU:HD23	2.06	0.56
2:F:363:TYR:HB2	2:F:414:LEU:HB3	1.87	0.56
2:G:304:ALA:CB	2:G:468:VAL:HB	2.35	0.56
2:G:542:ALA:C	2:G:546:PHE:CE2	2.82	0.56
2:H:54:ILE:HG23	2:H:55:GLY:H	1.70	0.56
2:I:271:PRO:HB2	2:I:273:LYS:HE2	1.88	0.56
3:P:20:GLN:CD	3:P:297:LEU:HD21	2.30	0.56
3:P:246:VAL:HG12	3:P:250:LEU:HD21	1.87	0.56
4:f:486:VAL:HB	4:f:487:PRO:HD3	1.87	0.56
4:i:8:ASN:O	4:i:10:LEU:N	2.39	0.56
1:w:144:MET:HA	1:w:144:MET:CE	2.19	0.56
1:x:325:GLY:O	1:x:326:LEU:C	2.49	0.56
1:3:264:LEU:O	1:3:265:ASN:ND2	2.38	0.56
1:5:47:LYS:N	1:5:51:GLY:HA2	2.20	0.56
1:6:210:VAL:HG21	1:6:263:PHE:HE2	1.70	0.56
1:7:331:ASP:O	1:7:333:VAL:N	2.38	0.56
1:8:149:THR:HG21	1:8:186:VAL:HG12	1.87	0.56
1:9:1:MET:N	1:9:49:GLY:O	2.35	0.56
2:A:19:LEU:CD1	2:K:545:LEU:HD21	2.33	0.56
2:A:310:ASN:N	2:A:310:ASN:ND2	2.53	0.56
2:C:476:ASP:N	2:C:476:ASP:OD1	2.35	0.56
2:D:138:GLU:OE1	2:D:426:VAL:CG2	2.42	0.56
2:E:118:GLN:O	2:E:121:VAL:CG1	2.53	0.56
2:F:64:GLN:NE2	2:F:65:ARG:O	2.37	0.56
2:F:519:ASP:N	2:F:519:ASP:OD1	2.38	0.56
2:G:521:GLU:N	2:G:521:GLU:OE2	2.33	0.56
2:H:460:LEU:O	2:H:463:GLN:CG	2.54	0.56
2:H:539:LEU:HD13	2:H:539:LEU:C	2.30	0.56
2:I:181:ASP:HB2	2:I:239:SER:HB3	1.87	0.56
3:L:234:ARG:O	3:L:238:ASN:ND2	2.38	0.56
3:M:236:LEU:HD23	3:M:236:LEU:C	2.29	0.56
3:O:47:SER:OG	3:O:48:GLN:OE1	2.23	0.56
3:R:269:LEU:HD12	4:h:16:ASN:ND2	2.20	0.56
3:U:76:GLU:OE2	3:U:250:LEU:HD22	2.04	0.56
3:U:207:ALA:HB2	3:U:232:THR:HG21	1.87	0.56
3:V:179:ILE:HG22	3:V:180:PHE:CD1	2.40	0.56
4:c:22:GLN:OE1	4:c:22:GLN:O	2.23	0.56
4:d:318:LYS:HE3	4:d:318:LYS:O	2.05	0.56
4:n:331:ASP:OD1	4:n:363:LYS:NZ	2.38	0.56
4:n:495:ARG:NE	4:n:495:ARG:HA	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:o:321:ASP:OD1	4:o:321:ASP:N	2.34	0.56
1:y:301:VAL:HG13	1:y:309:GLU:OE2	2.06	0.56
1:z:106:ARG:NH1	1:z:139:ILE:O	2.37	0.56
1:4:60:ASP:OD2	1:4:365:ASN:ND2	2.39	0.56
1:6:194:HIS:O	1:6:196:MET:HE1	2.05	0.56
1:7:267:MET:SD	1:7:267:MET:C	2.89	0.56
1:7:291:SER:C	1:7:292:TYR:CD1	2.83	0.56
2:E:125:GLU:OE1	3:S:133:ARG:NH1	2.38	0.56
3:O:28:GLU:OE1	3:O:37:THR:HG21	2.05	0.56
3:Q:109:SER:O	3:Q:113:ASP:OD1	2.22	0.56
3:V:30:MET:SD	3:V:283:TRP:HZ3	2.27	0.56
4:a:136:LYS:HB3	4:a:139:ALA:HB3	1.88	0.56
4:c:170:LEU:HD22	4:c:173:LEU:HB2	1.87	0.56
4:h:151:ASN:HB2	4:h:154:GLU:OE1	2.05	0.56
1:x:101:LYS:HE3	1:x:111:MET:HA	1.88	0.56
1:5:170:PHE:CE2	1:5:211:TYR:HB3	2.40	0.56
2:A:461:ASP:O	2:A:465:SER:N	2.37	0.56
2:D:59:TYR:C	2:D:59:TYR:CD1	2.83	0.56
2:H:123:ASN:HD22	3:V:133:ARG:NH2	2.02	0.56
3:L:299:ALA:O	3:L:302:LYS:HE3	2.06	0.56
3:L:302:LYS:HD2	3:L:303:THR:N	2.19	0.56
3:P:295:ALA:HB2	4:f:488:GLN:HE22	1.71	0.56
3:Q:8:MET:CG	3:Q:307:MET:HE1	2.35	0.56
3:Q:103:SER:O	3:Q:106:ASP:N	2.39	0.56
4:c:289:LEU:HD13	4:c:307:VAL:HG21	1.88	0.56
4:f:175:VAL:O	4:f:175:VAL:HG22	2.06	0.56
1:w:144:MET:HE1	1:w:310:GLN:OE1	2.05	0.56
1:w:368:LEU:CD1	1:w:372:LEU:HD22	2.35	0.56
1:1:111:MET:HE2	1:1:111:MET:CA	2.36	0.56
1:3:290:VAL:HG12	2:A:70:PHE:CE2	2.41	0.56
1:5:33:LYS:NZ	1:5:362:GLU:OE1	2.35	0.56
1:7:69:THR:OG1	1:7:71:ARG:HD3	2.05	0.56
1:8:19:VAL:HA	1:w:48:VAL:HG23	1.87	0.56
2:A:78:ALA:O	2:A:82:SER:OG	2.20	0.56
2:D:395:ILE:O	2:D:398:LEU:HD23	2.04	0.56
3:T:263:LEU:HD11	3:T:267:ARG:HH21	1.67	0.56
3:U:66:ARG:NE	3:U:261:ASP:OD1	2.37	0.56
4:f:459:TYR:OH	4:g:494:LEU:HB2	2.06	0.56
1:8:34:SER:HB3	1:8:366:VAL:HG22	1.87	0.56
2:A:182:GLN:OE1	2:A:185:ARG:NH2	2.39	0.56
2:B:198:LEU:O	2:B:198:LEU:HD23	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:300:GLN:OE1	2:C:360:ALA:N	2.39	0.56
2:F:476:ASP:OD1	2:F:477:ALA:N	2.39	0.56
2:F:541:THR:O	2:F:545:LEU:HD23	2.05	0.56
2:G:413:LEU:HD13	2:G:414:LEU:N	2.21	0.56
2:H:270:ILE:HG21	2:H:275:LEU:CD1	2.36	0.56
2:I:546:PHE:CE2	1:w:380:ARG:HD2	2.40	0.56
3:P:246:VAL:HG12	3:P:250:LEU:CD2	2.36	0.56
3:T:269:LEU:HD12	3:T:269:LEU:O	2.06	0.56
4:h:10:LEU:HG	4:i:29:ILE:HG21	1.87	0.56
4:h:460:ALA:O	4:h:463:VAL:HG22	2.05	0.56
4:i:336:THR:N	4:i:344:SER:O	2.38	0.56
1:3:20:ILE:HD11	1:3:371:GLU:CA	2.36	0.56
1:6:186:VAL:H	1:6:196:MET:HE1	1.71	0.56
1:7:139:ILE:O	1:7:139:ILE:CG2	2.54	0.56
2:D:303:LEU:O	2:D:307:ASP:HB3	2.05	0.56
2:J:440:SER:OG	2:J:443:ASP:CG	2.49	0.56
3:M:267:ARG:O	3:M:271:GLN:OE1	2.23	0.56
3:P:282:ASP:OD1	3:P:284:ASN:N	2.38	0.56
4:b:5:ILE:O	4:b:9:SER:N	2.37	0.56
4:l:368:ASP:OD1	4:l:368:ASP:N	2.36	0.56
1:w:403:ARG:OXT	1:w:403:ARG:NE	2.38	0.56
1:x:152:ALA:N	1:x:260:SER:O	2.39	0.56
1:y:310:GLN:OE1	1:y:312:LEU:N	2.38	0.56
1:z:92:VAL:O	1:z:92:VAL:HG13	2.05	0.56
1:2:187:TYR:HD2	1:2:285:LYS:HD2	1.70	0.56
1:3:390:LYS:HD3	2:A:552:ILE:HG21	1.88	0.56
1:4:159:ASN:C	1:4:159:ASN:HD22	2.14	0.56
1:7:133:ASN:OD1	1:7:133:ASN:O	2.24	0.56
2:C:81:GLN:O	2:C:85:LEU:HD23	2.06	0.56
2:D:326:ASP:OD1	2:D:427:LYS:NZ	2.38	0.56
2:I:312:GLN:HB3	2:I:462:LEU:HD11	1.88	0.56
2:I:348:LEU:HD11	2:I:372:TRP:CZ2	2.40	0.56
2:I:498:THR:O	2:I:502:VAL:HG23	2.05	0.56
2:J:439:GLU:CD	2:J:448:THR:HG21	2.31	0.56
3:M:120:GLN:O	3:M:124:LEU:HD22	2.06	0.56
3:P:260:LEU:CD2	3:Q:120:GLN:HE22	2.18	0.56
3:Q:200:LEU:HA	3:Q:203:MET:HE3	1.88	0.56
3:S:30:MET:CE	3:S:286:VAL:CG2	2.83	0.56
3:S:165:ASP:OD1	3:S:168:ARG:N	2.35	0.56
3:S:274:GLN:O	3:S:278:LEU:HD23	2.05	0.56
3:U:7:MET:SD	3:U:7:MET:C	2.89	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:z:165:PRO:HG2	1:z:168:THR:HA	1.88	0.56
1:4:20:ILE:CG2	1:4:375:MET:HE2	2.36	0.56
2:C:134:ILE:HD12	2:C:134:ILE:C	2.31	0.56
3:M:52:LEU:HD12	3:M:274:GLN:NE2	2.21	0.56
3:Q:172:ILE:CD1	3:Q:172:ILE:O	2.54	0.56
3:V:135:ILE:HD12	3:V:136:PHE:H	1.70	0.56
4:e:249:SER:O	4:e:258:THR:N	2.35	0.56
1:y:188:ASP:OD1	1:y:190:GLN:N	2.39	0.56
2:A:306:ALA:HB1	2:A:330:ILE:HB	1.86	0.55
2:B:220:GLN:N	2:B:224:THR:O	2.39	0.55
2:D:520:GLU:OE1	2:D:520:GLU:N	2.37	0.55
2:H:48:LEU:CB	2:I:186:MET:HE1	2.35	0.55
2:I:4:LEU:HD23	2:I:4:LEU:C	2.30	0.55
2:I:125:GLU:OE2	2:I:436:MET:HE3	2.06	0.55
3:O:164:VAL:CG1	3:O:170:MET:HG2	2.36	0.55
3:U:76:GLU:HG2	3:U:250:LEU:HD13	1.87	0.55
4:c:296:LEU:C	4:c:301:VAL:HG12	2.31	0.55
4:n:252:LYS:HA	4:n:282:VAL:HG11	1.88	0.55
1:w:169:PRO:HD2	1:w:170:PHE:CZ	2.42	0.55
1:w:222:ALA:O	1:w:224:THR:N	2.37	0.55
1:6:95:SER:HA	1:6:334:TRP:CD1	2.40	0.55
2:A:437:ALA:HB2	2:A:449:GLY:O	2.06	0.55
2:B:439:GLU:OE1	2:B:439:GLU:N	2.40	0.55
2:C:337:SER:O	2:C:338:ASN:HB3	2.06	0.55
3:M:271:GLN:OE1	3:M:271:GLN:N	2.39	0.55
3:R:237:LYS:NZ	4:h:151:ASN:OD1	2.39	0.55
3:V:289:SER:O	3:V:293:GLN:CD	2.49	0.55
4:b:406:GLU:O	4:b:411:LYS:NZ	2.35	0.55
4:d:326:VAL:N	4:d:333:TYR:O	2.37	0.55
4:e:25:LEU:O	4:e:29:ILE:HG23	2.07	0.55
4:m:183:ASP:OD1	4:m:183:ASP:N	2.39	0.55
1:w:104:GLU:N	1:w:104:GLU:OE1	2.39	0.55
1:w:196:MET:HE2	1:w:246:ILE:HG21	1.86	0.55
1:w:231:LYS:HE3	1:w:232:PHE:O	2.06	0.55
1:x:330:GLY:O	1:x:333:VAL:HB	2.05	0.55
1:z:182:GLY:O	1:z:198:VAL:N	2.36	0.55
1:3:381:ASN:OD1	1:3:385:ASN:ND2	2.39	0.55
2:A:479:ALA:HB2	3:O:50:VAL:HG11	1.87	0.55
2:C:323:LYS:NZ	2:C:324:GLY:O	2.37	0.55
2:C:351:LYS:N	2:C:399:LYS:O	2.39	0.55
2:C:535:ASN:HA	2:C:538:VAL:HG12	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:70:PHE:CZ	2:E:71:ILE:HD11	2.40	0.55
2:E:84:GLY:HA2	2:E:278:GLY:O	2.06	0.55
3:V:297:LEU:HD21	3:V:301:TYR:CE2	2.41	0.55
4:c:310:MET:HE2	4:c:310:MET:N	2.21	0.55
4:e:310:MET:HE2	4:e:310:MET:H	1.69	0.55
4:e:425:ASP:C	4:e:425:ASP:OD1	2.48	0.55
4:m:10:LEU:CD2	4:n:29:ILE:HG21	2.36	0.55
1:z:375:MET:HE1	1:z:379:GLN:HG3	1.89	0.55
1:4:165:PRO:HD2	1:4:177:SER:HA	1.89	0.55
2:A:525:LEU:HD21	2:K:541:THR:HG21	1.89	0.55
2:D:253:PRO:O	2:D:254:THR:HG23	2.05	0.55
2:F:107:SER:O	2:F:111:GLN:NE2	2.39	0.55
2:F:143:GLN:OE1	2:F:143:GLN:O	2.24	0.55
2:G:147:THR:O	2:G:151:LEU:HD13	2.06	0.55
2:I:117:LEU:HD23	2:I:460:LEU:HD13	1.87	0.55
2:K:71:ILE:O	2:K:75:LEU:HD23	2.06	0.55
3:P:281:VAL:HG13	3:P:282:ASP:N	2.21	0.55
3:Q:279:VAL:HG12	3:Q:280:ASP:H	1.69	0.55
3:R:310:MET:HE3	3:R:311:SER:HA	1.88	0.55
3:S:261:ASP:OD1	3:S:262:SER:N	2.40	0.55
3:V:23:TRP:CZ3	4:l:486:VAL:HG22	2.42	0.55
4:c:105:SER:OG	4:c:108:ASP:OD1	2.24	0.55
4:c:177:GLN:OE1	4:c:178:LYS:O	2.25	0.55
4:h:222:LYS:CD	4:h:278:ASP:OD1	2.54	0.55
1:w:171:SER:HB2	1:w:174:ASP:CB	2.35	0.55
1:x:36:THR:N	1:x:58:THR:O	2.38	0.55
2:A:195:PRO:CB	2:A:198:LEU:HD22	2.35	0.55
2:A:306:ALA:CB	2:A:424:MET:SD	2.94	0.55
2:B:229:MET:O	2:B:232:GLY:N	2.40	0.55
2:E:307:ASP:HB2	2:E:355:SER:CB	2.37	0.55
3:N:226:ALA:O	3:N:229:ILE:CG2	2.54	0.55
3:Q:29:GLN:NE2	3:Q:34:LYS:O	2.40	0.55
4:j:280:LYS:HE2	4:j:280:LYS:H	1.70	0.55
1:y:188:ASP:OD1	1:y:191:GLY:N	2.39	0.55
1:7:195:ASP:OD1	1:7:195:ASP:N	2.38	0.55
1:8:48:VAL:HG13	1:8:49:GLY:N	2.22	0.55
2:B:137:ALA:O	2:B:141:VAL:HG23	2.05	0.55
2:F:90:GLU:O	2:F:93:SER:OG	2.23	0.55
2:F:364:LYS:C	2:F:365:ILE:HD12	2.32	0.55
2:I:4:LEU:HD22	2:I:542:ALA:HB2	1.89	0.55
2:I:101:ASP:O	2:I:104:SER:OG	2.25	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:372:TRP:CZ3	2:J:393:LEU:HD11	2.42	0.55
3:M:253:GLN:OE1	3:M:253:GLN:HA	2.07	0.55
3:T:28:GLU:OE2	3:T:28:GLU:N	2.37	0.55
4:c:296:LEU:O	4:c:301:VAL:HG12	2.07	0.55
4:f:3:GLN:CB	4:f:6:ASN:CG	2.79	0.55
4:f:63:GLN:NE2	4:f:67:ASN:OD1	2.39	0.55
4:n:491:LEU:HD12	4:n:491:LEU:O	2.07	0.55
1:z:99:GLN:HB2	1:z:111:MET:HE1	1.87	0.55
1:3:18:ASP:HA	2:A:4:LEU:HD22	1.89	0.55
1:5:42:MET:SD	1:5:43:PHE:N	2.77	0.55
1:8:171:SER:HB2	1:8:224:THR:HG22	1.89	0.55
1:9:390:LYS:HE3	1:x:402:LEU:HB3	1.88	0.55
2:E:166:VAL:O	2:E:170:ASN:ND2	2.40	0.55
3:N:282:ASP:O	3:N:283:TRP:C	2.50	0.55
3:P:20:GLN:OE1	3:P:297:LEU:CG	2.55	0.55
3:Q:37:THR:OG1	3:Q:41:ASP:OD2	2.25	0.55
4:c:492:SER:O	4:c:495:ARG:NH2	2.40	0.55
4:f:30:GLU:O	4:f:30:GLU:OE2	2.24	0.55
4:h:310:MET:HE1	4:h:332:TYR:CD2	2.41	0.55
4:i:456:ASP:OD1	4:i:456:ASP:N	2.40	0.55
4:k:3:GLN:HE21	4:k:490:VAL:HG23	1.72	0.55
4:n:8:ASN:OD1	4:n:8:ASN:O	2.25	0.55
4:n:141:ASP:OD1	4:n:161:LYS:HA	2.05	0.55
1:z:188:ASP:OD1	1:z:194:HIS:NE2	2.33	0.55
1:1:166:SER:OG	1:1:176:ASP:CG	2.49	0.55
1:7:84:ARG:C	1:7:85:LEU:HD23	2.32	0.55
2:B:519:ASP:OD1	2:B:519:ASP:N	2.38	0.55
2:F:19:LEU:HG	3:S:310:MET:HE2	1.89	0.55
2:G:303:LEU:HD23	2:G:358:VAL:HG21	1.88	0.55
3:M:282:ASP:OD1	4:a:3:GLN:N	2.40	0.55
3:U:3:ILE:HD11	3:U:7:MET:HG3	1.88	0.55
4:a:222:LYS:O	4:a:231:TYR:N	2.37	0.55
4:j:481:ALA:O	4:j:485:GLN:NE2	2.40	0.55
1:1:42:MET:SD	1:1:50:LEU:HD12	2.47	0.55
1:1:42:MET:HG2	1:1:50:LEU:HB2	1.89	0.55
1:8:296:ASN:OD1	1:8:356:LEU:O	2.24	0.55
2:J:28:ASN:O	2:J:30:ASN:N	2.40	0.55
2:J:257:THR:HB	2:J:271:PRO:CB	2.37	0.55
3:P:283:TRP:CE2	4:e:2:ALA:N	2.75	0.55
3:S:16:ILE:HD12	3:S:16:ILE:C	2.31	0.55
4:j:263:ALA:O	4:j:265:SER:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:k:161:LYS:HB2	4:k:163:ILE:HD11	1.89	0.55
4:k:406:GLU:O	4:k:411:LYS:NZ	2.40	0.55
1:2:193:ALA:N	1:2:285:LYS:NZ	2.54	0.55
1:3:65:THR:HB	1:3:363:ALA:HB3	1.89	0.55
1:3:296:ASN:OD1	1:3:296:ASN:N	2.39	0.55
1:4:22:ASN:HB2	1:5:44:ALA:C	2.32	0.55
1:5:17:LEU:O	1:5:20:ILE:HG22	2.06	0.55
1:6:372:LEU:CD1	1:7:399:LEU:HD11	2.36	0.55
2:H:463:GLN:HA	2:H:474:PHE:HE1	1.72	0.55
2:I:300:GLN:OE1	2:I:301:LEU:HD22	2.06	0.55
2:J:124:ALA:HA	2:J:436:MET:HE1	1.88	0.55
2:K:4:LEU:HA	2:K:7:HIS:CE1	2.42	0.55
3:O:137:ALA:HA	3:O:145:PRO:HB3	1.89	0.55
3:T:275:MET:HE2	3:T:279:VAL:HG13	1.88	0.55
4:h:296:LEU:HD11	4:h:345:ILE:HD12	1.89	0.55
4:j:372:GLU:CG	4:j:383:ALA:HB3	2.36	0.55
4:l:326:VAL:N	4:l:333:TYR:O	2.35	0.55
4:n:490:VAL:HG12	4:o:477:THR:HG21	1.89	0.55
1:x:176:ASP:OD1	1:x:176:ASP:N	2.40	0.55
1:x:289:LEU:HD11	1:x:302:GLY:C	2.32	0.55
1:5:21:GLY:O	1:5:24:ILE:HG22	2.06	0.54
1:8:179:ASN:HD22	1:8:208:TRP:HZ3	1.55	0.54
2:B:98:LEU:HD22	2:B:98:LEU:H	1.72	0.54
2:F:520:GLU:OE1	2:F:520:GLU:HA	2.08	0.54
2:H:272:GLU:HB3	2:H:284:LEU:HD22	1.88	0.54
3:L:240:LEU:O	3:L:240:LEU:HD13	2.06	0.54
3:U:170:MET:HE3	3:U:253:GLN:OE1	2.07	0.54
3:V:54:GLN:C	3:V:54:GLN:CD	2.75	0.54
4:c:30:GLU:OE1	4:c:30:GLU:O	2.24	0.54
4:d:13:LEU:HD13	4:d:13:LEU:C	2.31	0.54
4:e:13:LEU:HD11	4:f:30:GLU:OE1	2.07	0.54
4:f:18:LEU:HD21	4:f:476:GLY:HA3	1.90	0.54
4:j:91:ARG:O	4:j:95:LEU:CD2	2.55	0.54
4:l:220:ASP:O	4:l:222:LYS:NZ	2.41	0.54
4:m:443:THR:O	4:m:447:LEU:HD23	2.07	0.54
1:7:112:GLN:OE1	1:7:114:MET:HE2	2.07	0.54
1:7:121:ALA:O	1:7:122:THR:HG23	2.06	0.54
1:9:202:LYS:HG3	1:9:208:TRP:CG	2.42	0.54
2:B:549:LEU:HD13	2:B:549:LEU:C	2.33	0.54
2:D:320:ASP:OD2	2:D:322:ASN:CB	2.56	0.54
2:D:516:VAL:O	3:R:4:SER:N	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:66:GLU:OE2	3:U:1:MET:HE2	2.08	0.54
2:G:96:ASP:OD1	2:G:97:ASN:N	2.40	0.54
2:I:367:PHE:O	2:I:409:ASN:N	2.40	0.54
2:I:548:ALA:O	2:I:551:ASN:ND2	2.40	0.54
2:K:445:ASP:OD1	2:K:445:ASP:N	2.40	0.54
3:N:276:SER:OG	4:b:5:ILE:HB	2.07	0.54
3:Q:76:GLU:C	3:Q:76:GLU:CD	2.76	0.54
3:Q:84:THR:O	3:Q:87:ILE:CD1	2.55	0.54
3:R:28:GLU:CD	3:R:28:GLU:C	2.76	0.54
3:S:29:GLN:NE2	3:S:286:VAL:HG11	2.22	0.54
3:V:162:GLN:HG3	3:V:172:ILE:HD11	1.88	0.54
4:g:310:MET:HE3	4:g:310:MET:CA	2.35	0.54
4:j:446:ASN:O	4:j:449:SER:OG	2.25	0.54
1:z:178:TYR:OH	1:z:181:LYS:HD2	2.07	0.54
1:2:31:GLY:N	1:2:362:GLU:O	2.39	0.54
1:5:380:ARG:HA	1:5:380:ARG:HE	1.71	0.54
1:7:84:ARG:O	1:7:85:LEU:HD23	2.07	0.54
2:H:355:SER:O	2:H:358:VAL:HG12	2.07	0.54
4:c:8:ASN:O	4:c:9:SER:C	2.50	0.54
4:c:177:GLN:CD	4:c:178:LYS:N	2.65	0.54
4:e:106:GLN:N	4:e:106:GLN:HE21	2.05	0.54
4:j:310:MET:HE3	4:j:310:MET:CA	2.33	0.54
4:n:25:LEU:HD12	4:n:25:LEU:O	2.07	0.54
1:1:119:TYR:HB3	1:1:128:ILE:HD11	1.89	0.54
1:7:73:LEU:HD21	1:7:101:LYS:HA	1.88	0.54
1:7:373:VAL:HG11	2:K:9:MET:SD	2.47	0.54
1:9:202:LYS:CB	1:9:208:TRP:CE3	2.90	0.54
2:A:455:ASN:O	2:A:459:LEU:HD12	2.07	0.54
2:G:38:THR:HB	2:G:64:GLN:HG3	1.90	0.54
2:H:270:ILE:HG21	2:H:275:LEU:HD11	1.88	0.54
2:J:440:SER:HG	2:J:443:ASP:CG	2.15	0.54
2:K:130:ARG:O	2:K:134:ILE:CD1	2.54	0.54
3:N:22:GLU:OE1	3:N:25:LYS:HD2	2.06	0.54
3:Q:105:ASP:OD1	3:Q:106:ASP:N	2.40	0.54
4:j:188:VAL:HG23	4:j:287:ALA:HB2	1.89	0.54
1:y:370:LYS:HA	1:y:370:LYS:CE	2.35	0.54
1:1:2:SER:HB3	1:z:18:ASP:HA	1.90	0.54
1:1:5:GLN:HG2	1:z:22:ASN:CA	2.37	0.54
1:4:154:MET:HE2	1:4:276:ILE:HD11	1.89	0.54
1:5:36:THR:O	1:5:58:THR:N	2.40	0.54
1:8:77:ILE:HD13	1:8:96:ARG:NH2	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S:269:LEU:O	3:S:273:LEU:CD1	2.56	0.54
3:V:13:MET:HE3	3:V:13:MET:CA	2.37	0.54
4:f:99:SER:HB2	4:f:175:VAL:HG21	1.88	0.54
1:z:30:TYR:CE1	1:z:67:THR:HG21	2.42	0.54
1:2:24:ILE:HG23	1:2:371:GLU:OE1	2.07	0.54
1:2:46:SER:O	1:2:49:GLY:N	2.39	0.54
2:E:2:SER:HA	2:E:5:ILE:HD13	1.88	0.54
2:E:320:ASP:OD1	2:E:321:GLY:N	2.41	0.54
2:I:229:MET:HE2	2:I:229:MET:N	2.18	0.54
2:K:395:ILE:N	2:K:398:LEU:O	2.34	0.54
3:O:23:TRP:HZ2	3:O:294:GLN:HB2	1.73	0.54
3:O:263:LEU:HA	3:O:266:ASP:OD2	2.08	0.54
3:P:295:ALA:HB2	4:f:488:GLN:NE2	2.22	0.54
4:i:3:GLN:HG3	4:i:5:ILE:HG23	1.89	0.54
1:6:366:VAL:HG13	1:6:371:GLU:OE1	2.07	0.54
1:7:65:THR:HG21	2:J:3:SER:HA	1.90	0.54
2:A:99:LEU:HD21	2:A:482:VAL:HG22	1.90	0.54
2:B:92:MET:HE2	2:B:92:MET:HA	1.90	0.54
2:D:296:ASN:ND2	2:D:362:ASP:OD1	2.40	0.54
2:D:388:ASP:N	2:D:392:LYS:O	2.33	0.54
2:E:349:THR:HB	2:E:401:THR:OG1	2.07	0.54
2:F:229:MET:SD	2:F:231:ASN:ND2	2.81	0.54
2:H:35:THR:HG21	2:H:65:ARG:HD2	1.88	0.54
2:I:92:MET:HE3	2:I:489:THR:N	2.23	0.54
3:M:124:LEU:HD22	3:M:124:LEU:H	1.72	0.54
1:x:267:MET:HE1	1:x:269:GLN:HA	1.90	0.54
1:3:396:LEU:HD22	1:4:380:ARG:HG2	1.90	0.54
1:4:289:LEU:HD12	1:4:303:ASN:O	2.08	0.54
1:7:143:LEU:HD22	1:7:143:LEU:H	1.72	0.54
1:8:312:LEU:HD12	1:8:312:LEU:O	2.08	0.54
2:H:300:GLN:OE1	2:H:301:LEU:N	2.41	0.54
2:I:502:VAL:O	2:I:506:LEU:HD13	2.07	0.54
2:J:303:LEU:HD23	2:J:303:LEU:C	2.33	0.54
3:L:192:ASP:OD1	3:L:192:ASP:O	2.26	0.54
3:N:22:GLU:OE1	3:N:22:GLU:HA	2.07	0.54
3:O:212:LYS:O	3:O:212:LYS:HD3	2.08	0.54
3:V:108:ALA:O	3:V:112:THR:HG23	2.08	0.54
3:V:129:ASP:OD1	3:V:133:ARG:N	2.39	0.54
4:e:482:GLN:OE1	4:e:482:GLN:HA	2.07	0.54
4:f:5:ILE:O	4:f:5:ILE:HD13	2.08	0.54
4:l:495:ARG:HA	4:l:495:ARG:NE	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:116:LEU:C	1:2:137:ILE:HD12	2.33	0.54
1:3:192:ASN:OD1	1:4:271:THR:N	2.40	0.54
1:7:25:ALA:HB2	2:I:7:HIS:NE2	2.23	0.54
2:A:493:LYS:NZ	2:A:497:THR:HG21	2.23	0.54
2:B:45:ASN:HD21	2:C:186:MET:HE2	1.72	0.54
2:B:150:TYR:HH	2:B:154:GLN:CD	2.15	0.54
2:C:467:VAL:CG2	2:C:468:VAL:N	2.71	0.54
2:F:226:ASN:C	2:F:227:LEU:HD22	2.33	0.54
2:F:388:ASP:OD2	2:F:392:LYS:NZ	2.41	0.54
2:H:460:LEU:O	2:H:463:GLN:HG2	2.07	0.54
2:I:98:LEU:CD2	2:I:150:TYR:CE2	2.91	0.54
2:J:372:TRP:CH2	2:J:402:VAL:HG12	2.43	0.54
3:O:140:LYS:NZ	3:O:154:HIS:O	2.41	0.54
3:Q:284:ASN:HD21	3:R:16:ILE:HD11	1.73	0.54
3:T:182:SER:O	3:T:242:ASN:ND2	2.41	0.54
3:T:249:GLU:OE2	3:T:253:GLN:HG2	2.07	0.54
3:T:301:TYR:CD1	3:T:301:TYR:C	2.85	0.54
3:V:190:GLU:OE1	3:V:234:ARG:NH2	2.38	0.54
4:a:204:LYS:HA	4:a:207:ALA:HB3	1.89	0.54
4:c:177:GLN:CD	4:c:177:GLN:C	2.76	0.54
4:g:326:VAL:N	4:g:333:TYR:O	2.40	0.54
4:m:296:LEU:HD21	4:m:345:ILE:CD1	2.38	0.54
1:x:328:SER:HA	1:x:334:TRP:CG	2.43	0.54
1:y:392:GLN:HA	1:y:392:GLN:OE1	2.08	0.54
1:2:369:SER:O	1:2:373:VAL:HG23	2.07	0.54
1:6:329:GLN:HB3	1:6:335:ALA:CB	2.37	0.54
1:8:16:ASN:O	1:8:19:VAL:HG12	2.08	0.54
2:B:65:ARG:NH2	2:B:67:TYR:CG	2.76	0.54
2:B:204:GLN:HG3	2:B:205:LEU:HD22	1.90	0.54
2:B:508:LYS:HD2	2:B:508:LYS:C	2.33	0.54
2:F:117:LEU:HD13	2:F:460:LEU:HD13	1.90	0.54
3:O:28:GLU:CD	3:O:28:GLU:C	2.76	0.54
3:Q:8:MET:SD	3:Q:8:MET:N	2.81	0.54
3:V:304:PHE:CD1	3:V:304:PHE:C	2.84	0.54
4:d:171:ASP:OD1	4:d:172:THR:HG23	2.07	0.54
4:g:58:ILE:HA	4:g:61:LEU:HD12	1.90	0.54
4:j:340:ASP:OD1	4:j:340:ASP:N	2.40	0.54
4:n:203:PHE:O	4:n:207:ALA:N	2.40	0.54
1:w:143:LEU:HD12	1:w:287:GLY:O	2.08	0.54
1:4:289:LEU:HB2	1:4:304:TYR:CD2	2.44	0.53
1:7:280:ASN:OD1	1:7:281:GLN:N	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:12:LEU:HD22	2:B:532:TYR:CE1	2.44	0.53
2:D:322:ASN:OD1	2:D:323:LYS:N	2.40	0.53
2:D:546:PHE:O	2:D:550:LEU:HD13	2.08	0.53
2:J:393:LEU:O	2:J:399:LYS:HA	2.09	0.53
3:M:37:THR:HG23	3:M:38:ASN:CG	2.34	0.53
3:P:234:ARG:NH1	4:e:152:ASP:OD2	2.38	0.53
3:Q:285:SER:O	3:Q:286:VAL:C	2.50	0.53
3:R:297:LEU:O	3:R:297:LEU:HD23	2.09	0.53
3:T:24:MET:HE1	4:i:4:VAL:CG2	2.36	0.53
3:V:102:LEU:N	3:V:102:LEU:HD23	2.23	0.53
4:b:122:GLU:OE2	4:b:125:ARG:NH2	2.40	0.53
4:f:5:ILE:O	4:f:5:ILE:HG23	2.08	0.53
4:f:222:LYS:O	4:f:231:TYR:N	2.36	0.53
4:g:150:ALA:N	4:g:154:GLU:OE1	2.41	0.53
1:2:85:LEU:O	1:2:93:PHE:N	2.41	0.53
1:4:20:ILE:HB	1:4:375:MET:CE	2.38	0.53
2:B:342:ALA:HB2	2:B:407:GLN:HB2	1.89	0.53
2:I:368:ASP:OD2	2:I:373:GLN:NE2	2.33	0.53
2:J:111:GLN:CD	2:J:111:GLN:N	2.67	0.53
4:n:296:LEU:HD21	4:n:345:ILE:HD13	1.89	0.53
1:z:31:GLY:N	1:z:362:GLU:O	2.37	0.53
1:2:53:LYS:O	1:2:53:LYS:HG2	2.08	0.53
1:3:317:LEU:HD12	1:3:317:LEU:N	2.24	0.53
1:6:82:PHE:CZ	1:6:334:TRP:CD1	2.95	0.53
1:6:144:MET:O	1:6:286:PRO:HA	2.09	0.53
2:A:499:GLN:HA	2:A:502:VAL:HG12	1.90	0.53
2:B:89:TYR:CZ	2:B:493:LYS:HE3	2.42	0.53
2:C:123:ASN:OD1	3:Q:133:ARG:NH1	2.33	0.53
2:D:398:LEU:HD11	2:D:414:LEU:HD21	1.90	0.53
2:F:539:LEU:O	2:F:543:ASN:OD1	2.27	0.53
2:J:450:ASP:N	3:M:141:THR:OG1	2.42	0.53
3:M:284:ASN:OD1	3:M:285:SER:N	2.40	0.53
4:o:184:THR:OG1	4:o:309:LYS:NZ	2.40	0.53
1:w:368:LEU:C	1:w:368:LEU:HD13	2.34	0.53
1:z:6:ALA:HB1	1:z:389:ILE:HG13	1.91	0.53
2:D:134:ILE:HG22	2:D:138:GLU:OE2	2.08	0.53
2:E:4:LEU:HD11	2:E:542:ALA:HA	1.89	0.53
2:G:165:SER:O	2:G:169:ILE:HD13	2.09	0.53
2:I:467:VAL:HG13	2:I:468:VAL:N	2.23	0.53
2:I:469:GLY:O	2:I:471:ASN:N	2.42	0.53
3:Q:282:ASP:C	3:Q:284:ASN:H	2.17	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S:69:ALA:O	3:S:73:VAL:HG23	2.07	0.53
3:T:275:MET:HA	3:T:275:MET:HE3	1.91	0.53
3:V:304:PHE:HE2	4:l:494:LEU:HD12	1.74	0.53
4:e:249:SER:N	4:e:258:THR:O	2.31	0.53
4:f:361:LEU:C	4:f:361:LEU:HD12	2.34	0.53
4:h:189:THR:O	4:h:286:ASN:ND2	2.37	0.53
4:j:372:GLU:O	4:j:372:GLU:CD	2.52	0.53
4:m:157:ASP:C	4:m:157:ASP:OD1	2.51	0.53
1:w:48:VAL:HG22	1:w:48:VAL:O	2.07	0.53
1:w:331:ASP:O	1:w:332:ASN:ND2	2.41	0.53
1:w:399:LEU:CD1	1:w:402:LEU:HD12	2.38	0.53
1:y:41:ASP:HB2	1:y:43:PHE:CD1	2.43	0.53
1:2:117:THR:O	1:2:137:ILE:HD11	2.08	0.53
1:3:186:VAL:CG1	1:3:196:MET:HE3	2.37	0.53
1:9:202:LYS:HB2	1:9:208:TRP:CE3	2.43	0.53
2:C:148:ASP:OD1	2:C:152:ARG:NE	2.28	0.53
2:F:429:THR:O	2:F:429:THR:CG2	2.56	0.53
3:M:65:ALA:CB	3:M:164:VAL:HG12	2.39	0.53
3:T:289:SER:O	3:T:292:MET:HE3	2.08	0.53
3:U:24:MET:O	3:U:28:GLU:HG2	2.09	0.53
4:c:131:GLN:CD	4:c:131:GLN:C	2.77	0.53
4:k:461:THR:O	4:k:464:SER:OG	2.24	0.53
4:l:37:ARG:NH2	4:l:454:ILE:O	2.41	0.53
4:m:236:VAL:HG21	4:m:242:LYS:HB2	1.90	0.53
4:n:5:ILE:CG2	4:n:491:LEU:HD23	2.38	0.53
1:x:327:ALA:HB2	1:x:337:THR:HG21	1.89	0.53
1:x:379:GLN:C	1:x:379:GLN:CD	2.77	0.53
1:5:40:ALA:HB3	1:5:53:LYS:HB2	1.90	0.53
2:B:47:THR:HG22	2:B:48:LEU:N	2.24	0.53
2:B:303:LEU:HD23	2:B:303:LEU:O	2.09	0.53
2:E:65:ARG:NH2	2:E:200:ASP:OD1	2.34	0.53
2:H:145:LYS:HE3	2:H:422:VAL:HA	1.89	0.53
2:I:376:ARG:NH1	2:I:396:ASP:OD2	2.42	0.53
2:J:457:GLN:OE1	2:J:457:GLN:O	2.27	0.53
3:O:203:MET:HE1	3:O:235:GLY:CA	2.39	0.53
3:Q:20:GLN:OE1	3:Q:20:GLN:C	2.52	0.53
3:U:106:ASP:OD1	3:U:106:ASP:N	2.41	0.53
4:k:225:ASP:OD1	4:k:226:THR:N	2.41	0.53
4:l:210:LEU:HD11	4:l:259:LEU:HD21	1.90	0.53
1:y:380:ARG:HD2	1:y:383:GLN:NE2	2.24	0.53
1:5:20:ILE:HD11	1:5:371:GLU:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:160:SER:OG	1:5:270:ASN:HA	2.09	0.53
1:8:196:MET:HE1	1:8:214:ASP:CB	2.38	0.53
2:A:30:ASN:CG	2:K:531:TYR:HH	2.15	0.53
2:B:45:ASN:ND2	2:C:186:MET:HE2	2.24	0.53
2:C:221:ASP:OD1	2:C:222:GLY:N	2.42	0.53
2:E:149:GLN:NE2	2:E:153:ASP:OD1	2.41	0.53
2:I:145:LYS:O	2:I:148:ASP:OD1	2.25	0.53
2:K:546:PHE:CE2	2:K:550:LEU:HD21	2.43	0.53
3:S:316:ASN:OD1	3:S:317:ARG:N	2.42	0.53
3:V:68:PHE:O	3:V:71:GLN:OE1	2.27	0.53
4:b:10:LEU:C	4:b:10:LEU:HD13	2.33	0.53
4:b:296:LEU:CD2	4:b:301:VAL:HG11	2.32	0.53
4:e:340:ASP:OD1	4:e:340:ASP:N	2.38	0.53
4:o:420:ASP:OD1	4:o:420:ASP:N	2.42	0.53
1:x:201:VAL:O	1:x:209:ALA:N	2.31	0.53
1:z:375:MET:C	1:z:375:MET:CE	2.82	0.53
1:6:87:ASP:C	1:6:87:ASP:OD1	2.52	0.53
2:B:5:ILE:HD12	2:B:6:ASN:N	2.24	0.53
2:B:153:ASP:O	2:B:156:LYS:HG3	2.08	0.53
2:D:145:LYS:NZ	2:D:422:VAL:O	2.42	0.53
2:H:142:ASN:ND2	3:U:168:ARG:HD2	2.24	0.53
2:H:229:MET:HE2	2:H:275:LEU:HG	1.89	0.53
2:I:177:ALA:HB1	2:I:239:SER:C	2.33	0.53
2:I:362:ASP:OD1	2:I:377:THR:CG2	2.56	0.53
3:T:170:MET:CE	3:T:253:GLN:HB3	2.39	0.53
3:U:200:LEU:O	3:U:203:MET:HG3	2.09	0.53
3:V:219:ASN:O	3:V:220:VAL:HB	2.09	0.53
4:a:254:ASN:ND2	4:a:256:GLU:OE2	2.42	0.53
4:c:4:VAL:O	4:c:5:ILE:C	2.51	0.53
4:e:254:ASN:OD1	4:e:255:GLY:N	2.42	0.53
4:k:131:GLN:OE1	4:k:134:GLY:N	2.35	0.53
1:x:40:ALA:N	1:x:53:LYS:O	2.42	0.53
1:x:162:ASP:C	1:x:162:ASP:OD1	2.52	0.53
1:y:175:ALA:O	1:y:177:SER:N	2.38	0.53
1:1:34:SER:HB3	1:1:366:VAL:HG22	1.90	0.53
1:4:17:LEU:HA	1:4:375:MET:CE	2.39	0.53
1:5:176:ASP:OD1	1:5:176:ASP:N	2.41	0.53
1:6:93:PHE:CD1	1:6:329:GLN:CD	2.87	0.53
1:6:167:LYS:HB3	1:6:177:SER:HB3	1.91	0.53
1:6:375:MET:SD	1:8:391:THR:OG1	2.66	0.53
1:8:17:LEU:C	1:8:17:LEU:HD13	2.34	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:363:TYR:HD2	2:E:414:LEU:HD13	1.74	0.53
2:E:388:ASP:C	2:E:390:ASP:N	2.60	0.53
2:G:441:LYS:O	2:G:441:LYS:HD3	2.09	0.53
2:H:54:ILE:HG23	2:H:55:GLY:N	2.24	0.53
3:Q:61:GLN:HA	3:Q:64:LEU:HD12	1.90	0.53
3:T:292:MET:SD	3:T:292:MET:C	2.92	0.53
4:f:183:ASP:OD2	4:f:327:LYS:NZ	2.35	0.53
4:k:5:ILE:HD11	4:k:490:VAL:CB	2.38	0.53
1:w:374:ASN:CA	1:w:377:VAL:HG12	2.39	0.53
1:y:188:ASP:OD1	1:y:188:ASP:C	2.51	0.53
1:3:186:VAL:N	1:3:196:MET:HE1	2.24	0.53
2:A:1:MET:O	2:A:4:LEU:N	2.42	0.53
2:B:106:LEU:O	2:B:109:SER:N	2.42	0.53
2:C:171:ASN:OD1	2:C:175:GLN:NE2	2.41	0.53
2:C:361:THR:HG21	2:C:376:ARG:HB3	1.91	0.53
2:H:148:ASP:OD2	2:H:152:ARG:NH2	2.39	0.53
2:I:99:LEU:CD1	2:I:485:VAL:HG21	2.39	0.53
2:K:130:ARG:HB3	2:K:434:ILE:HD13	1.91	0.53
3:M:30:MET:HE2	3:M:286:VAL:HG12	1.91	0.53
3:T:307:MET:HE2	3:T:311:SER:HB2	1.91	0.53
4:b:453:ARG:HD2	4:c:69:ASN:HB3	1.91	0.53
4:g:151:ASN:N	4:g:154:GLU:OE1	2.41	0.53
4:j:419:VAL:HG13	4:j:420:ASP:OD1	2.08	0.53
4:n:252:LYS:HD2	4:n:252:LYS:N	2.23	0.53
2:D:377:THR:O	2:D:380:ASN:ND2	2.41	0.52
2:E:185:ARG:O	2:E:189:VAL:HG23	2.09	0.52
2:G:169:ILE:HD11	2:G:212:ILE:CG2	2.39	0.52
2:H:348:LEU:HD12	2:H:402:VAL:HA	1.90	0.52
2:H:365:ILE:HG22	2:H:372:TRP:CE3	2.44	0.52
2:I:305:PHE:CD2	2:I:306:ALA:N	2.77	0.52
2:J:508:LYS:HG2	3:M:7:MET:HE3	1.91	0.52
2:K:303:LEU:CD1	2:K:355:SER:CB	2.87	0.52
3:M:52:LEU:CD1	3:M:274:GLN:NE2	2.72	0.52
3:M:203:MET:CE	3:M:235:GLY:C	2.82	0.52
3:N:30:MET:HE3	3:N:30:MET:O	2.09	0.52
3:V:122:MET:HE1	3:V:201:PHE:CE2	2.44	0.52
4:c:486:VAL:HB	4:c:487:PRO:HD3	1.91	0.52
4:d:225:ASP:OD1	4:d:225:ASP:N	2.41	0.52
4:n:288:ASP:O	4:n:293:LYS:NZ	2.34	0.52
4:o:184:THR:O	4:o:309:LYS:N	2.39	0.52
1:w:368:LEU:HD13	1:w:372:LEU:HD13	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:358:ASN:OD1	1:2:358:ASN:N	2.42	0.52
1:4:25:ALA:CB	1:5:52:VAL:HG21	2.40	0.52
1:6:170:PHE:CE2	1:6:211:TYR:CG	2.97	0.52
1:7:204:LYS:HG3	1:7:207:GLU:HB2	1.92	0.52
2:E:70:PHE:CE1	2:E:71:ILE:CD1	2.92	0.52
2:G:58:VAL:HG22	1:w:26:ASN:OD1	2.10	0.52
2:H:9:MET:SD	2:H:9:MET:O	2.67	0.52
2:H:117:LEU:O	2:H:121:VAL:HG22	2.09	0.52
2:H:123:ASN:OD1	2:H:123:ASN:O	2.27	0.52
2:J:387:LYS:HD2	2:J:387:LYS:O	2.09	0.52
3:L:22:GLU:OE2	3:L:293:GLN:HG2	2.09	0.52
3:R:6:GLN:CD	3:R:6:GLN:H	2.17	0.52
4:d:310:MET:HA	4:d:310:MET:HE3	1.92	0.52
4:j:451:ARG:O	4:j:455:GLU:HG3	2.09	0.52
4:m:326:VAL:N	4:m:333:TYR:O	2.34	0.52
1:x:289:LEU:HD12	1:x:304:TYR:CE1	2.43	0.52
1:1:387:GLN:O	1:1:391:THR:HG22	2.09	0.52
2:A:30:ASN:HD21	2:K:527:ARG:HD3	1.74	0.52
2:A:546:PHE:C	2:A:546:PHE:CD1	2.86	0.52
2:H:359:GLN:NE2	2:H:396:ASP:CG	2.68	0.52
2:I:183:ILE:C	2:I:183:ILE:HD12	2.34	0.52
2:J:364:LYS:C	2:J:365:ILE:HD12	2.35	0.52
2:K:168:GLN:HE22	2:K:212:ILE:HG21	1.75	0.52
2:K:256:THR:O	2:K:287:ARG:NH1	2.35	0.52
3:P:86:ALA:O	3:P:89:THR:HG22	2.09	0.52
3:T:283:TRP:N	3:T:283:TRP:CD1	2.75	0.52
4:a:236:VAL:HG21	4:a:242:LYS:CB	2.38	0.52
4:a:493:LEU:O	4:a:495:ARG:NH2	2.42	0.52
4:m:32:LEU:CD2	4:m:459:TYR:HD1	2.23	0.52
1:1:399:LEU:HD12	1:z:382:TYR:OH	2.10	0.52
1:2:154:MET:HE1	1:2:280:ASN:H	1.73	0.52
1:3:156:ILE:CD1	1:3:158:LEU:HD21	2.38	0.52
1:6:263:PHE:N	1:6:263:PHE:CD1	2.76	0.52
1:6:375:MET:HE1	1:8:388:THR:CA	2.40	0.52
1:7:397:ASN:OD1	1:8:380:ARG:NH2	2.42	0.52
1:8:182:GLY:O	1:8:198:VAL:N	2.39	0.52
1:8:288:ASP:C	1:8:288:ASP:OD1	2.52	0.52
1:9:165:PRO:HD2	1:9:201:VAL:HG13	1.92	0.52
2:G:231:ASN:O	1:x:180:LYS:NZ	2.38	0.52
2:H:156:LYS:HB3	2:H:157:GLN:OE1	2.10	0.52
3:R:73:VAL:HG13	3:R:250:LEU:HD13	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b:116:ILE:CG2	4:b:173:LEU:HD12	2.40	0.52
4:f:82:LEU:CD1	4:f:422:LEU:HD12	2.38	0.52
4:j:310:MET:HA	4:j:310:MET:CE	2.30	0.52
1:z:76:ALA:HB1	1:z:362:GLU:HG2	1.91	0.52
1:z:232:PHE:CZ	1:z:238:LEU:HD13	2.44	0.52
1:1:156:ILE:HD12	1:1:156:ILE:C	2.34	0.52
1:1:373:VAL:HG21	2:E:9:MET:CE	2.40	0.52
1:3:20:ILE:HD11	1:3:371:GLU:HB3	1.91	0.52
1:4:93:PHE:CD1	1:4:335:ALA:HB2	2.45	0.52
1:6:99:GLN:HG3	1:6:111:MET:HG2	1.92	0.52
2:A:302:ALA:O	2:A:306:ALA:N	2.40	0.52
2:C:325:LYS:NZ	2:C:433:GLU:OE2	2.35	0.52
2:E:5:ILE:HD12	2:E:542:ALA:HB1	1.92	0.52
2:E:91:GLN:O	2:E:95:ILE:HD13	2.09	0.52
2:F:367:PHE:HE2	2:F:407:GLN:HA	1.73	0.52
2:G:19:LEU:HD21	2:G:528:TYR:HB2	1.91	0.52
2:J:367:PHE:CE2	2:J:407:GLN:HA	2.44	0.52
2:K:36:ARG:NH1	2:K:521:GLU:OE1	2.41	0.52
2:K:392:LYS:HE3	2:K:400:VAL:C	2.34	0.52
3:M:28:GLU:O	3:M:32:THR:OG1	2.27	0.52
3:S:275:MET:O	3:S:279:VAL:HG12	2.10	0.52
3:V:315:LEU:HD22	3:V:316:ASN:N	2.23	0.52
4:b:10:LEU:CD1	4:b:10:LEU:C	2.82	0.52
1:2:290:VAL:HG21	1:3:351:GLY:C	2.34	0.52
1:9:290:VAL:O	1:9:290:VAL:CG1	2.57	0.52
2:C:275:LEU:CD1	2:C:284:LEU:HD12	2.40	0.52
2:C:330:ILE:HD12	2:C:330:ILE:O	2.09	0.52
2:D:46:SER:C	2:D:47:THR:HG23	2.35	0.52
2:D:367:PHE:CD2	2:D:406:ALA:HB3	2.44	0.52
2:E:150:TYR:CZ	2:E:154:GLN:NE2	2.78	0.52
2:K:117:LEU:HD23	2:K:117:LEU:C	2.34	0.52
3:L:49:ALA:O	3:L:275:MET:HE1	2.10	0.52
3:N:226:ALA:C	3:N:229:ILE:HG22	2.34	0.52
3:P:170:MET:HE3	3:P:253:GLN:CB	2.40	0.52
4:f:200:ASN:OD1	4:f:217:ILE:HD12	2.09	0.52
4:f:224:ASP:OD2	4:f:274:THR:OG1	2.23	0.52
4:g:417:ALA:O	4:g:420:ASP:OD1	2.28	0.52
4:i:3:GLN:CG	4:i:5:ILE:HG23	2.40	0.52
4:n:452:SER:HA	4:n:456:ASP:OD1	2.09	0.52
4:o:152:ASP:N	4:o:152:ASP:OD1	2.41	0.52
4:o:171:ASP:OD1	4:o:171:ASP:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:w:368:LEU:HD13	1:w:368:LEU:O	2.10	0.52
1:z:157:ASN:C	1:z:158:LEU:HD12	2.35	0.52
1:4:128:ILE:HD13	1:4:314:GLN:HB2	1.91	0.52
1:7:307:GLU:O	1:7:308:GLN:NE2	2.37	0.52
1:9:202:LYS:HG2	1:9:203:THR:N	2.24	0.52
2:D:148:ASP:O	2:D:152:ARG:HG3	2.10	0.52
2:G:508:LYS:HE3	3:U:3:ILE:HD13	1.92	0.52
2:H:7:HIS:NE2	2:H:56:ASN:O	2.43	0.52
2:H:92:MET:HA	2:H:92:MET:HE3	1.92	0.52
2:I:15:ALA:HB2	2:I:531:TYR:CE2	2.45	0.52
2:K:290:ASP:OD1	2:K:488:LYS:NZ	2.37	0.52
2:K:394:GLU:OE2	2:K:398:LEU:N	2.43	0.52
3:R:269:LEU:HD23	3:R:269:LEU:C	2.34	0.52
3:U:76:GLU:OE2	3:U:250:LEU:CD2	2.58	0.52
4:h:310:MET:HE1	4:h:332:TYR:CE2	2.45	0.52
4:m:53:ARG:CZ	4:m:53:ARG:HB2	2.40	0.52
1:5:48:VAL:HG13	1:5:49:GLY:N	2.25	0.52
1:7:328:SER:HA	2:I:46:SER:HA	1.92	0.52
1:9:167:LYS:O	1:9:167:LYS:HD3	2.10	0.52
1:9:186:VAL:HG13	1:9:196:MET:HE3	1.91	0.52
2:A:379:ASP:OD1	2:A:380:ASN:N	2.43	0.52
2:B:300:GLN:C	2:B:300:GLN:CD	2.77	0.52
2:E:76:ARG:HD3	2:E:217:VAL:HG21	1.91	0.52
2:F:446:VAL:O	2:F:446:VAL:CG1	2.57	0.52
2:F:464:ASN:C	2:F:464:ASN:OD1	2.52	0.52
2:I:215:VAL:HG11	2:I:227:LEU:HD21	1.91	0.52
2:J:539:LEU:HD13	2:J:543:ASN:OD1	2.10	0.52
2:K:365:ILE:O	2:K:411:SER:OG	2.22	0.52
2:K:367:PHE:O	2:K:409:ASN:N	2.36	0.52
2:K:509:GLN:C	2:K:509:GLN:OE1	2.53	0.52
3:L:30:MET:HA	3:L:30:MET:HE3	1.92	0.52
3:Q:164:VAL:HG21	3:Q:170:MET:HE3	1.92	0.52
3:S:316:ASN:O	3:S:317:ARG:C	2.53	0.52
3:T:230:ASP:OD1	3:T:234:ARG:NH1	2.42	0.52
3:T:249:GLU:C	3:T:249:GLU:CD	2.77	0.52
4:e:321:ASP:C	4:e:321:ASP:OD1	2.53	0.52
4:g:494:LEU:HD13	4:g:494:LEU:C	2.35	0.52
4:j:183:ASP:C	4:j:183:ASP:OD1	2.52	0.52
1:1:182:GLY:O	1:1:198:VAL:N	2.40	0.52
1:1:187:TYR:HB3	1:1:191:GLY:HA2	1.91	0.52
1:3:402:LEU:HD12	1:3:403:ARG:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:53:TRP:CZ3	2:G:194:SER:HB2	2.45	0.52
2:I:439:GLU:HG3	2:I:448:THR:HG22	1.92	0.52
2:K:220:GLN:OE1	2:K:226:ASN:ND2	2.35	0.52
3:L:128:THR:OG1	3:L:132:GLY:HA2	2.10	0.52
3:N:73:VAL:HG13	3:N:250:LEU:HD22	1.92	0.52
4:b:288:ASP:O	4:b:293:LYS:NZ	2.36	0.52
4:c:15:GLN:O	4:c:16:ASN:C	2.51	0.52
4:c:211:GLY:O	4:c:215:GLN:NE2	2.40	0.52
4:d:205:ALA:O	4:d:208:THR:OG1	2.28	0.52
4:j:372:GLU:HG2	4:j:383:ALA:CB	2.39	0.52
4:m:101:ASN:C	4:m:101:ASN:OD1	2.53	0.52
1:w:118:GLY:O	1:w:134:PRO:HA	2.09	0.52
1:w:206:ASN:O	1:w:231:LYS:HD2	2.10	0.52
1:x:281:GLN:OE1	1:x:283:GLY:N	2.35	0.52
1:z:196:MET:HE3	1:z:214:ASP:OD1	2.10	0.52
1:1:111:MET:HE2	1:1:111:MET:HA	1.91	0.52
1:2:231:LYS:HB2	1:2:239:GLU:OE1	2.10	0.52
1:7:294:ILE:N	1:7:294:ILE:HD12	2.24	0.52
2:A:453:ASN:C	2:A:457:GLN:NE2	2.68	0.52
2:A:521:GLU:C	2:A:521:GLU:OE1	2.54	0.52
2:B:36:ARG:NH1	2:B:66:GLU:OE1	2.34	0.52
2:B:300:GLN:HE21	2:B:358:VAL:HG23	1.75	0.52
2:C:196:ASN:O	2:C:197:ASP:C	2.53	0.52
2:F:12:LEU:HD23	2:F:535:ASN:OD1	2.10	0.52
2:K:220:GLN:NE2	2:K:224:THR:OG1	2.42	0.52
3:L:200:LEU:CA	3:L:203:MET:HE3	2.40	0.52
3:M:251:GLY:HA2	3:M:254:LEU:HD12	1.91	0.52
3:N:269:LEU:O	3:N:273:LEU:HD23	2.10	0.52
3:Q:36:VAL:HG13	3:Q:279:VAL:HG13	1.88	0.52
3:S:302:LYS:O	3:S:306:ASP:OD2	2.28	0.52
3:U:256:GLU:O	3:U:260:LEU:HD22	2.10	0.52
4:i:204:LYS:HA	4:i:207:ALA:HB3	1.92	0.52
1:w:289:LEU:HB2	1:w:304:TYR:CE2	2.45	0.52
1:4:19:VAL:HG23	1:4:20:ILE:H	1.74	0.51
1:4:99:GLN:NE2	1:4:99:GLN:O	2.43	0.51
1:8:289:LEU:HD12	1:8:303:ASN:O	2.11	0.51
1:9:111:MET:C	1:9:111:MET:SD	2.93	0.51
2:E:511:GLN:O	2:E:515:GLY:N	2.40	0.51
2:H:517:ASN:N	2:H:521:GLU:OE1	2.42	0.51
2:J:281:GLY:O	2:J:285:THR:OG1	2.25	0.51
3:O:24:MET:SD	3:O:24:MET:C	2.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:255:SER:OG	4:c:42:LYS:HB3	2.11	0.51
3:Q:106:ASP:OD1	4:e:53:ARG:NH1	2.42	0.51
3:R:30:MET:HE1	3:R:283:TRP:HZ3	1.75	0.51
3:V:306:ASP:O	3:V:310:MET:HG2	2.10	0.51
4:a:147:GLN:NE2	4:a:151:ASN:O	2.35	0.51
4:e:224:ASP:N	4:e:229:LYS:O	2.38	0.51
4:h:417:ALA:O	4:h:420:ASP:OD1	2.28	0.51
4:j:289:LEU:HD13	4:j:307:VAL:HG23	1.91	0.51
1:y:161:THR:O	1:y:161:THR:HG22	2.09	0.51
1:6:27:SER:OG	1:6:366:VAL:HG11	2.11	0.51
1:6:114:MET:N	1:6:114:MET:HE3	2.25	0.51
1:6:186:VAL:HG22	1:6:196:MET:HE3	1.91	0.51
1:7:230:LEU:HD21	1:7:238:LEU:HD12	1.92	0.51
2:A:44:ALA:HB3	2:A:56:ASN:OD1	2.10	0.51
2:C:331:GLY:N	2:C:423:ASP:OD1	2.43	0.51
2:E:212:ILE:HA	2:E:279:SER:HB3	1.93	0.51
2:E:307:ASP:CB	2:E:355:SER:CB	2.89	0.51
3:L:46:ALA:O	3:L:50:VAL:HG23	2.10	0.51
3:P:103:SER:N	3:P:106:ASP:OD2	2.42	0.51
3:P:297:LEU:C	3:P:297:LEU:HD13	2.35	0.51
3:Q:83:VAL:O	3:Q:87:ILE:HG13	2.11	0.51
3:S:119:ASP:N	3:S:119:ASP:OD1	2.42	0.51
3:T:195:ASP:OD2	3:T:198:LYS:NZ	2.43	0.51
4:b:326:VAL:N	4:b:333:TYR:O	2.41	0.51
4:d:489:ASN:ND2	4:e:474:GLN:HG3	2.25	0.51
4:f:480:LEU:HD12	4:f:480:LEU:O	2.10	0.51
4:h:194:THR:CG2	4:h:284:VAL:HG23	2.38	0.51
4:m:101:ASN:OD1	4:m:102:SER:N	2.43	0.51
1:w:88:SER:HA	1:w:114:MET:CE	2.40	0.51
1:x:85:LEU:HD13	1:x:114:MET:HB2	1.92	0.51
1:6:48:VAL:O	1:6:48:VAL:HG12	2.11	0.51
1:6:375:MET:HG2	1:8:391:THR:OG1	2.11	0.51
1:7:110:ASN:C	1:7:111:MET:HE2	2.36	0.51
1:9:110:ASN:OD1	1:9:114:MET:HG3	2.10	0.51
2:C:453:ASN:ND2	2:C:457:GLN:OE1	2.43	0.51
2:D:181:ASP:OD1	2:D:182:GLN:N	2.43	0.51
2:E:8:ALA:O	2:E:9:MET:C	2.53	0.51
2:E:156:LYS:HD3	2:E:160:ILE:HG13	1.91	0.51
2:G:419:ASN:O	2:G:422:VAL:HG12	2.10	0.51
2:H:71:ILE:HD13	2:H:75:LEU:HD12	1.93	0.51
2:H:430:ASN:OD1	2:H:431:GLU:OE2	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:52:LEU:HG	3:M:274:GLN:NE2	2.25	0.51
3:M:168:ARG:NH1	3:N:119:ASP:O	2.43	0.51
3:N:271:GLN:HA	3:N:271:GLN:OE1	2.11	0.51
3:P:183:ILE:HD12	3:P:183:ILE:C	2.35	0.51
3:Q:103:SER:OG	3:Q:106:ASP:CG	2.52	0.51
3:Q:301:TYR:O	3:Q:305:THR:HG23	2.11	0.51
3:R:275:MET:HA	3:R:278:LEU:HD23	1.91	0.51
3:U:57:ALA:O	3:U:61:GLN:HG2	2.10	0.51
4:f:200:ASN:CB	4:f:217:ILE:HD12	2.40	0.51
1:x:101:LYS:HZ1	1:x:111:MET:HE3	1.75	0.51
1:2:229:THR:C	1:2:230:LEU:HD12	2.35	0.51
1:5:80:ASN:OD1	1:5:354:GLY:N	2.43	0.51
2:C:98:LEU:HD13	2:C:98:LEU:C	2.36	0.51
2:G:55:GLY:O	1:w:22:ASN:ND2	2.42	0.51
2:G:343:ASP:OD2	2:G:346:VAL:HG13	2.10	0.51
2:H:67:TYR:CE2	2:H:69:ALA:HA	2.46	0.51
3:N:226:ALA:HA	3:N:229:ILE:HG22	1.91	0.51
3:P:75:LEU:O	3:P:79:VAL:HG23	2.09	0.51
3:Q:263:LEU:O	3:Q:266:ASP:OD1	2.29	0.51
3:R:44:ILE:H	3:R:44:ILE:HD12	1.76	0.51
3:R:162:GLN:OE1	3:R:163:GLN:N	2.43	0.51
3:V:304:PHE:O	3:V:307:MET:HG3	2.10	0.51
4:c:471:ILE:HG23	4:e:491:LEU:HD22	1.92	0.51
4:i:6:ASN:CG	4:i:7:THR:N	2.68	0.51
4:m:6:ASN:OD1	4:m:6:ASN:N	2.43	0.51
1:w:135:ALA:HB1	1:w:136:PRO:HD2	1.91	0.51
1:w:246:ILE:HG22	1:w:247:THR:N	2.24	0.51
1:z:306:ASN:O	1:z:307:GLU:HG3	2.11	0.51
1:9:324:GLU:N	1:9:324:GLU:CD	2.69	0.51
2:B:487:ASN:HD21	2:C:131:GLN:HG3	1.75	0.51
2:F:219:VAL:HG12	2:F:220:GLN:N	2.26	0.51
2:F:519:ASP:HB3	3:T:314:GLN:NE2	2.25	0.51
2:G:28:ASN:O	2:G:30:ASN:N	2.43	0.51
3:L:223:GLU:OE1	3:L:223:GLU:N	2.40	0.51
3:M:164:VAL:CG2	3:M:170:MET:CE	2.88	0.51
3:R:203:MET:CE	3:R:235:GLY:C	2.84	0.51
3:T:106:ASP:OD1	4:j:53:ARG:NH2	2.39	0.51
3:V:179:ILE:CG2	3:V:180:PHE:CE1	2.94	0.51
3:V:273:LEU:HD11	4:n:9:SER:OG	2.10	0.51
4:f:416:LEU:O	4:f:419:VAL:HG12	2.11	0.51
4:j:337:GLN:OE1	4:j:343:ILE:HD13	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:y:86:VAL:HG22	1:y:117:THR:HG22	1.93	0.51
1:y:202:LYS:CE	1:y:208:TRP:CZ3	2.94	0.51
1:4:70:GLY:N	1:4:359:GLY:O	2.40	0.51
1:4:74:ASP:HA	1:4:98:GLY:O	2.11	0.51
1:5:382:TYR:CD1	1:5:382:TYR:C	2.86	0.51
2:C:43:GLN:HG3	2:C:58:VAL:HA	1.92	0.51
2:H:98:LEU:HD13	2:H:98:LEU:C	2.36	0.51
2:J:18:ALA:O	2:J:22:VAL:HG22	2.11	0.51
2:J:170:ASN:O	2:J:174:LYS:HD3	2.11	0.51
3:M:157:GLU:O	3:M:157:GLU:OE2	2.27	0.51
3:T:315:LEU:HD13	3:T:315:LEU:C	2.35	0.51
3:V:313:PHE:O	3:V:314:GLN:C	2.53	0.51
4:a:494:LEU:O	4:a:495:ARG:HB2	2.11	0.51
4:b:301:VAL:O	4:b:301:VAL:CG1	2.57	0.51
4:f:9:SER:O	4:f:10:LEU:C	2.52	0.51
4:j:39:ASN:N	4:j:43:ASP:OD2	2.42	0.51
4:l:483:ALA:O	4:l:486:VAL:HB	2.10	0.51
1:w:108:LEU:HD23	1:w:116:LEU:HD23	1.93	0.51
1:w:368:LEU:HD11	1:w:372:LEU:CD1	2.40	0.51
1:z:83:PHE:O	1:z:94:TYR:HA	2.11	0.51
1:2:154:MET:SD	1:2:278:ALA:HB1	2.50	0.51
1:3:196:MET:CE	1:3:196:MET:N	2.72	0.51
1:4:18:ASP:O	1:5:45:GLY:N	2.44	0.51
1:4:77:ILE:N	1:4:77:ILE:HD12	2.25	0.51
1:6:196:MET:CE	1:6:196:MET:N	2.74	0.51
2:A:231:ASN:HB2	2:A:274:LEU:HD23	1.92	0.51
2:B:90:GLU:C	2:B:90:GLU:CD	2.78	0.51
2:B:229:MET:HA	2:B:229:MET:CE	2.39	0.51
2:B:483:SER:O	2:B:487:ASN:ND2	2.44	0.51
2:D:104:SER:OG	3:Q:263:LEU:HD12	2.09	0.51
2:E:519:ASP:OD1	3:S:314:GLN:HG2	2.10	0.51
2:E:550:LEU:O	1:y:390:LYS:NZ	2.44	0.51
2:F:12:LEU:HD22	2:F:532:TYR:CE1	2.45	0.51
2:H:312:GLN:NE2	2:H:458:ALA:HB3	2.25	0.51
3:P:33:GLY:O	3:P:34:LYS:HD3	2.11	0.51
3:S:122:MET:HE1	3:S:146:PHE:CB	2.40	0.51
4:c:491:LEU:HA	4:c:494:LEU:HB3	1.91	0.51
4:f:468:ARG:HG2	4:f:472:LEU:HD11	1.90	0.51
4:f:482:GLN:O	4:f:486:VAL:HG23	2.10	0.51
4:f:492:SER:O	4:f:495:ARG:NH2	2.42	0.51
4:m:48:GLN:OE1	4:m:52:ASN:ND2	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:w:178:TYR:O	1:w:178:TYR:CD1	2.63	0.51
1:5:110:ASN:C	1:5:110:ASN:OD1	2.53	0.51
1:6:210:VAL:HG21	1:6:263:PHE:CE2	2.46	0.51
1:7:121:ALA:HB2	1:7:313:GLY:HA2	1.93	0.51
2:C:314:THR:HG22	2:C:326:ASP:OD1	2.10	0.51
2:E:106:LEU:O	2:E:106:LEU:HD13	2.11	0.51
2:F:68:ASP:OD2	2:F:71:ILE:HG22	2.11	0.51
2:G:549:LEU:HG	1:w:382:TYR:OH	2.11	0.51
2:I:235:LEU:HD23	2:I:235:LEU:O	2.11	0.51
2:I:546:PHE:CZ	1:w:380:ARG:HD2	2.46	0.51
2:J:257:THR:HB	2:J:271:PRO:HB3	1.93	0.51
2:J:479:ALA:HB2	3:M:50:VAL:HG11	1.91	0.51
3:T:310:MET:HE1	3:U:294:GLN:HG3	1.91	0.51
4:e:349:LYS:NZ	4:e:357:SER:OG	2.37	0.51
4:g:296:LEU:HD11	4:g:345:ILE:CD1	2.41	0.51
4:l:32:LEU:HD22	4:l:466:MET:CE	2.41	0.51
4:m:203:PHE:C	4:m:203:PHE:CD1	2.88	0.51
4:n:310:MET:HE2	4:n:323:GLY:O	2.11	0.51
4:n:385:LYS:HA	4:n:385:LYS:HE2	1.93	0.51
1:y:162:ASP:OD2	1:y:208:TRP:CZ2	2.64	0.51
1:1:143:LEU:HD23	1:1:143:LEU:H	1.74	0.51
1:3:396:LEU:O	1:3:400:VAL:HG23	2.10	0.51
1:4:18:ASP:HB3	1:5:44:ALA:CB	2.41	0.51
1:6:328:SER:HB2	1:8:43:PHE:HB3	1.92	0.51
1:8:121:ALA:HB3	1:8:312:LEU:HA	1.92	0.51
2:I:309:PHE:O	2:I:310:ASN:C	2.53	0.51
2:J:462:LEU:HD12	2:J:463:GLN:N	2.26	0.51
2:K:408:LYS:HD2	2:K:408:LYS:O	2.11	0.51
2:K:539:LEU:HD12	2:K:539:LEU:O	2.10	0.51
3:T:42:ASP:OD1	3:T:45:ALA:HB3	2.11	0.51
4:f:422:LEU:O	4:f:422:LEU:HD13	2.11	0.51
4:i:321:ASP:OD1	4:i:321:ASP:N	2.43	0.51
4:i:471:ILE:CD1	4:k:5:ILE:HD12	2.40	0.51
4:n:491:LEU:O	4:n:494:LEU:N	2.43	0.51
1:1:101:LYS:CG	1:1:111:MET:HE1	2.41	0.51
1:6:2:SER:N	1:6:5:GLN:OE1	2.44	0.51
1:6:137:ILE:HD12	1:6:313:GLY:HA2	1.93	0.51
1:6:307:GLU:O	1:6:308:GLN:NE2	2.37	0.51
2:B:75:LEU:HD13	2:B:75:LEU:C	2.36	0.51
2:B:304:ALA:HB2	2:B:468:VAL:HG13	1.92	0.51
2:C:7:HIS:CE1	2:C:55:GLY:HA3	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:47:THR:OG1	1:y:63:ASP:O	2.29	0.51
2:I:243:GLN:C	2:I:244:LEU:HD22	2.36	0.51
2:K:3:SER:O	2:K:6:ASN:OD1	2.28	0.51
2:K:307:ASP:O	2:K:308:ALA:C	2.54	0.51
3:N:38:ASN:HB2	3:N:39:PRO:HD2	1.93	0.51
4:e:308:VAL:O	4:e:310:MET:HE1	2.11	0.51
4:g:368:ASP:OD2	4:g:370:LYS:HG2	2.11	0.51
4:h:332:TYR:O	4:h:363:LYS:NZ	2.44	0.51
4:i:9:SER:O	4:i:10:LEU:C	2.52	0.51
4:o:480:LEU:HD13	4:o:480:LEU:O	2.11	0.51
1:w:99:GLN:OE1	1:w:111:MET:HG3	2.10	0.51
1:w:185:THR:HG21	1:w:285:LYS:NZ	2.25	0.51
1:1:17:LEU:C	2:C:4:LEU:HD21	2.35	0.50
1:2:156:ILE:HG22	1:2:276:ILE:HG23	1.93	0.50
1:4:17:LEU:HA	1:4:375:MET:HE1	1.93	0.50
1:5:58:THR:HG23	1:5:324:GLU:OE2	2.10	0.50
1:7:144:MET:HB3	1:7:287:GLY:HA3	1.94	0.50
1:8:60:ASP:O	1:8:365:ASN:ND2	2.43	0.50
2:A:441:LYS:HA	2:A:441:LYS:HE2	1.93	0.50
2:B:88:ARG:HD2	2:B:285:THR:HG23	1.93	0.50
2:C:358:VAL:HG12	2:C:398:LEU:HD22	1.92	0.50
2:F:235:LEU:CD1	2:F:236:VAL:HG23	2.41	0.50
2:I:374:VAL:O	2:I:382:THR:HG23	2.11	0.50
2:J:45:ASN:OD1	2:J:46:SER:N	2.45	0.50
2:K:323:LYS:O	2:K:324:GLY:C	2.53	0.50
2:K:326:ASP:C	2:K:326:ASP:OD1	2.54	0.50
3:L:240:LEU:O	3:L:243:VAL:HG12	2.11	0.50
3:N:275:MET:O	3:N:279:VAL:HG22	2.12	0.50
3:P:302:LYS:NZ	3:P:306:ASP:OD1	2.42	0.50
4:e:321:ASP:OD1	4:e:321:ASP:O	2.29	0.50
4:f:5:ILE:O	4:f:9:SER:HB2	2.11	0.50
4:i:38:ILE:HD11	4:i:44:ASP:HB3	1.91	0.50
4:j:21:SER:HG	4:j:473:GLN:CD	2.18	0.50
1:w:147:LYS:NZ	1:w:284:TYR:CD2	2.80	0.50
1:1:10:LEU:HD22	1:1:389:ILE:HD12	1.92	0.50
1:3:33:LYS:HE3	2:B:50:ALA:O	2.12	0.50
1:5:42:MET:HB2	1:5:53:LYS:HD3	1.92	0.50
1:5:368:LEU:O	1:5:371:GLU:N	2.44	0.50
1:6:111:MET:HE2	1:6:111:MET:N	2.27	0.50
1:9:86:VAL:HG11	1:9:136:PRO:HG3	1.93	0.50
2:A:372:TRP:CH2	2:A:402:VAL:HG12	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:237:GLN:OE1	2:B:237:GLN:N	2.44	0.50
2:C:436:MET:SD	2:C:452:ASP:O	2.69	0.50
2:F:341:ASN:O	2:F:344:LYS:NZ	2.37	0.50
2:H:409:ASN:C	2:H:409:ASN:OD1	2.53	0.50
2:I:143:GLN:CD	2:I:143:GLN:N	2.68	0.50
3:M:273:LEU:HA	3:M:276:SER:OG	2.11	0.50
3:M:292:MET:SD	3:M:293:GLN:N	2.85	0.50
3:O:205:ASP:O	3:O:208:ILE:HG12	2.12	0.50
4:b:10:LEU:HD12	4:b:483:ALA:HB2	1.93	0.50
4:c:326:VAL:O	4:c:333:TYR:N	2.41	0.50
4:f:6:ASN:C	4:f:8:ASN:N	2.61	0.50
4:n:436:ALA:O	4:n:440:LEU:HD12	2.11	0.50
4:n:486:VAL:HG23	4:n:487:PRO:N	2.26	0.50
1:w:143:LEU:HD12	1:w:144:MET:N	2.25	0.50
1:x:84:ARG:HD3	1:x:92:VAL:HG13	1.93	0.50
1:x:267:MET:HE2	1:x:268:GLN:O	2.11	0.50
1:y:61:PHE:N	1:y:61:PHE:CD1	2.79	0.50
1:5:103:ASP:OD1	1:5:105:ASN:N	2.45	0.50
1:7:185:THR:HG23	1:7:194:HIS:O	2.12	0.50
2:A:111:GLN:OE1	2:A:111:GLN:N	2.41	0.50
3:M:13:MET:SD	3:M:14:SER:N	2.84	0.50
3:M:164:VAL:HG22	3:M:170:MET:CE	2.41	0.50
3:Q:61:GLN:HA	3:Q:64:LEU:CD1	2.41	0.50
3:Q:87:ILE:HD12	3:Q:88:GLN:H	1.76	0.50
3:R:8:MET:SD	3:R:8:MET:C	2.95	0.50
3:R:203:MET:HE1	3:R:235:GLY:O	2.11	0.50
3:U:10:GLU:C	3:U:10:GLU:CD	2.79	0.50
3:V:87:ILE:O	3:V:91:GLN:HG3	2.12	0.50
4:b:236:VAL:HG21	4:b:242:LYS:HB2	1.93	0.50
4:e:474:GLN:OE1	4:g:491:LEU:HD21	2.12	0.50
4:f:6:ASN:C	4:f:7:THR:HG1	2.18	0.50
4:f:35:GLY:C	4:f:36:LEU:HD12	2.36	0.50
4:g:310:MET:HA	4:g:310:MET:CE	2.37	0.50
4:j:32:LEU:HD12	4:j:459:TYR:CE1	2.45	0.50
4:n:308:VAL:HG23	4:n:310:MET:SD	2.50	0.50
1:w:16:ASN:O	1:w:20:ILE:HG12	2.12	0.50
1:1:16:ASN:O	1:1:19:VAL:HG12	2.10	0.50
1:1:91:SER:HB2	1:1:93:PHE:CZ	2.47	0.50
1:1:144:MET:HE1	1:1:306:ASN:OD1	2.11	0.50
1:9:165:PRO:HG2	1:9:201:VAL:HG13	1.93	0.50
2:A:405:GLY:O	2:A:407:GLN:NE2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:453:ASN:C	2:A:457:GLN:HE22	2.20	0.50
2:E:80:ASN:ND2	2:E:210:ASN:O	2.40	0.50
2:H:423:ASP:OD1	2:H:423:ASP:O	2.29	0.50
2:H:549:LEU:HD13	2:H:549:LEU:C	2.37	0.50
2:I:197:ASP:N	2:I:197:ASP:OD1	2.43	0.50
2:K:486:GLY:O	2:K:489:THR:HG22	2.10	0.50
3:O:21:ALA:O	3:O:24:MET:HE3	2.12	0.50
3:Q:279:VAL:HG12	3:Q:280:ASP:N	2.27	0.50
3:S:68:PHE:O	3:S:71:GLN:HG2	2.12	0.50
4:b:331:ASP:OD2	4:b:363:LYS:NZ	2.44	0.50
4:d:171:ASP:OD1	4:d:172:THR:N	2.44	0.50
4:d:314:ASP:OD1	4:d:314:ASP:C	2.55	0.50
4:e:30:GLU:OE1	4:e:39:ASN:ND2	2.44	0.50
4:e:332:TYR:O	4:e:363:LYS:NZ	2.45	0.50
4:h:168:LEU:HD12	4:h:415:ALA:HB1	1.94	0.50
4:i:485:GLN:O	4:i:488:GLN:N	2.45	0.50
4:m:10:LEU:HG	4:n:29:ILE:HG21	1.93	0.50
4:o:41:ALA:N	4:o:48:GLN:OE1	2.44	0.50
1:w:385:ASN:O	1:w:389:ILE:HG12	2.11	0.50
1:x:165:PRO:HG2	1:x:201:VAL:HG13	1.94	0.50
1:z:30:TYR:HE1	1:z:67:THR:HG21	1.76	0.50
1:z:370:LYS:O	1:z:373:VAL:HG22	2.11	0.50
1:1:296:ASN:OD1	1:1:296:ASN:O	2.28	0.50
1:2:190:GLN:HG3	1:2:190:GLN:O	2.11	0.50
1:3:17:LEU:O	1:3:20:ILE:HG22	2.12	0.50
1:5:1:MET:HE1	1:5:3:PHE:CD2	2.47	0.50
2:B:166:VAL:O	2:B:169:ILE:HG22	2.12	0.50
2:C:348:LEU:HD13	2:C:412:PHE:CE2	2.46	0.50
2:H:331:GLY:HA2	2:H:423:ASP:OD2	2.11	0.50
2:H:518:LEU:C	2:H:521:GLU:OE2	2.54	0.50
2:J:407:GLN:N	2:J:407:GLN:CD	2.69	0.50
3:M:147:ASP:OD2	3:M:150:THR:OG1	2.22	0.50
3:N:13:MET:HE3	3:N:16:ILE:HD11	1.93	0.50
3:S:21:ALA:O	3:S:24:MET:HE3	2.12	0.50
3:S:105:ASP:OD1	3:S:105:ASP:N	2.42	0.50
3:S:284:ASN:O	3:S:285:SER:C	2.54	0.50
4:b:296:LEU:HB3	4:b:301:VAL:CG1	2.42	0.50
4:e:5:ILE:O	4:e:5:ILE:HG22	2.12	0.50
4:e:176:GLN:O	4:e:404:THR:HG22	2.11	0.50
4:h:252:LYS:HD2	4:h:252:LYS:N	2.27	0.50
1:1:5:GLN:HG3	1:1:51:GLY:HA2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:201:VAL:O	1:1:209:ALA:N	2.42	0.50
1:3:365:ASN:C	2:B:1:MET:HE1	2.36	0.50
1:5:1:MET:CE	1:5:3:PHE:H	2.24	0.50
2:A:366:VAL:O	2:A:373:GLN:N	2.42	0.50
2:B:306:ALA:HB1	2:B:330:ILE:HD13	1.92	0.50
2:C:450:ASP:O	2:C:450:ASP:OD1	2.29	0.50
2:G:550:LEU:O	1:y:387:GLN:OE1	2.30	0.50
2:J:87:THR:HG21	2:J:282:GLY:HA3	1.94	0.50
2:K:473:THR:HG22	2:K:474:PHE:N	2.26	0.50
2:K:511:GLN:O	2:K:515:GLY:N	2.44	0.50
3:L:164:VAL:HG23	3:L:164:VAL:O	2.11	0.50
3:L:233:ASN:C	3:L:233:ASN:OD1	2.55	0.50
3:M:203:MET:HE1	3:M:235:GLY:O	2.12	0.50
3:O:257:LEU:HD23	3:O:257:LEU:C	2.36	0.50
3:U:113:ASP:C	3:U:113:ASP:OD1	2.54	0.50
4:l:494:LEU:O	4:l:495:ARG:HB2	2.12	0.50
4:o:244:GLY:HA3	4:o:266:PRO:HB3	1.93	0.50
4:o:465:ASN:OD1	4:o:468:ARG:NH2	2.44	0.50
1:y:59:GLN:HB2	1:y:61:PHE:CZ	2.47	0.50
1:3:179:ASN:ND2	1:3:202:LYS:HB3	2.27	0.50
1:3:180:LYS:NZ	2:B:230:ALA:O	2.32	0.50
2:D:13:ASN:OD1	2:D:14:ALA:N	2.44	0.50
2:E:73:ASN:OD1	2:E:76:ARG:NH1	2.45	0.50
2:E:362:ASP:OD1	2:E:377:THR:OG1	2.29	0.50
2:H:9:MET:SD	2:H:9:MET:C	2.95	0.50
2:I:15:ALA:HB2	2:I:531:TYR:CD2	2.47	0.50
2:J:240:THR:HG22	2:J:240:THR:O	2.10	0.50
3:Q:284:ASN:O	3:Q:286:VAL:N	2.44	0.50
3:V:230:ASP:OD1	3:V:231:LYS:N	2.45	0.50
4:h:460:ALA:HA	4:h:463:VAL:HG22	1.94	0.50
4:i:491:LEU:C	4:i:491:LEU:HD13	2.36	0.50
4:n:486:VAL:HG22	4:n:487:PRO:HD3	1.94	0.50
1:z:105:ASN:O	1:z:106:ARG:NE	2.44	0.50
1:1:79:GLN:OE1	1:1:80:ASN:O	2.29	0.50
1:2:267:MET:SD	1:2:267:MET:C	2.94	0.50
1:5:377:VAL:O	1:5:381:ASN:OD1	2.29	0.50
2:D:511:GLN:HB3	3:R:7:MET:HE1	1.92	0.50
2:I:123:ASN:O	2:I:125:GLU:N	2.42	0.50
2:J:124:ALA:CB	2:J:436:MET:SD	3.00	0.50
3:O:168:ARG:HD2	3:O:170:MET:SD	2.52	0.50
3:O:242:ASN:HD22	3:O:242:ASN:C	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:165:ASP:OD1	3:Q:168:ARG:N	2.34	0.50
3:T:292:MET:HE3	3:T:293:GLN:N	2.27	0.50
3:U:34:LYS:HZ3	3:U:279:VAL:HG22	1.76	0.50
4:a:354:ASP:OD1	4:a:355:GLY:N	2.44	0.50
4:m:220:ASP:O	4:m:222:LYS:NZ	2.43	0.50
1:x:330:GLY:CA	1:y:44:ALA:HB2	2.42	0.50
1:y:24:ILE:HG13	1:y:371:GLU:OE2	2.12	0.50
1:2:368:LEU:HD12	1:2:372:LEU:HD13	1.94	0.50
1:6:196:MET:N	1:6:196:MET:SD	2.85	0.50
1:7:294:ILE:O	1:7:358:ASN:ND2	2.44	0.50
2:A:198:LEU:HD23	2:A:199:LEU:N	2.27	0.50
2:A:306:ALA:O	2:A:328:PHE:HB2	2.11	0.50
2:E:363:TYR:CD2	2:E:414:LEU:HD13	2.46	0.50
2:G:515:GLY:O	2:G:516:VAL:C	2.54	0.50
2:I:148:ASP:OD1	2:I:148:ASP:C	2.54	0.50
3:M:262:SER:O	3:M:266:ASP:OD1	2.29	0.50
3:O:263:LEU:HD11	3:O:267:ARG:HH11	1.76	0.50
3:P:220:VAL:N	3:P:223:GLU:OE2	2.45	0.50
3:T:230:ASP:OD1	4:k:152:ASP:OD2	2.29	0.50
3:V:310:MET:HB3	3:V:313:PHE:CZ	2.47	0.50
4:i:220:ASP:O	4:i:222:LYS:NZ	2.45	0.50
1:z:168:THR:N	1:z:169:PRO:CD	2.75	0.50
1:4:16:ASN:C	1:4:19:VAL:HG22	2.35	0.49
2:B:154:GLN:O	2:B:158:VAL:HG13	2.11	0.49
2:C:94:LYS:HE2	2:C:94:LYS:HA	1.94	0.49
2:F:153:ASP:OD2	2:F:157:GLN:NE2	2.45	0.49
2:H:98:LEU:HD12	2:H:99:LEU:CD2	2.38	0.49
2:I:113:PHE:O	2:I:116:SER:OG	2.27	0.49
2:J:16:GLN:OE1	2:J:16:GLN:HA	2.12	0.49
2:K:467:VAL:HG13	2:K:468:VAL:N	2.26	0.49
3:L:15:GLY:HA2	3:L:18:ASN:OD1	2.13	0.49
3:M:164:VAL:HG23	3:M:170:MET:HE1	1.94	0.49
3:M:301:TYR:CE1	4:o:493:LEU:HD22	2.47	0.49
3:N:34:LYS:NZ	3:N:36:VAL:O	2.37	0.49
3:Q:18:ASN:C	3:Q:18:ASN:OD1	2.55	0.49
3:R:77:GLU:OE1	3:R:247:ARG:NH1	2.45	0.49
4:b:216:LYS:HE2	4:b:235:THR:HB	1.93	0.49
4:g:10:LEU:HD21	4:h:29:ILE:HG21	1.94	0.49
4:k:5:ILE:HD11	4:k:490:VAL:CG2	2.41	0.49
4:k:218:ASP:N	4:k:218:ASP:OD1	2.44	0.49
4:k:485:GLN:O	4:k:488:GLN:CG	2.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:y:1:MET:HA	1:y:1:MET:HE3	1.94	0.49
1:y:87:ASP:HB3	1:y:114:MET:HE2	1.94	0.49
1:4:174:ASP:OD1	1:4:174:ASP:N	2.44	0.49
1:6:181:LYS:HE3	1:6:199:TYR:CE2	2.47	0.49
1:7:154:MET:HE1	1:7:183:THR:N	2.27	0.49
1:7:277:VAL:HG23	1:7:277:VAL:O	2.12	0.49
1:9:94:TYR:O	1:9:334:TRP:N	2.38	0.49
2:A:472:LYS:HD3	2:A:477:ALA:HB2	1.94	0.49
2:B:130:ARG:HB3	2:B:434:ILE:HD12	1.94	0.49
2:H:434:ILE:HG22	2:H:436:MET:SD	2.53	0.49
2:K:455:ASN:HD22	2:K:455:ASN:C	2.15	0.49
3:L:87:ILE:CG2	3:L:240:LEU:HD23	2.42	0.49
3:N:114:LEU:HB3	3:N:208:ILE:HD12	1.93	0.49
3:O:163:GLN:HE22	3:O:166:SER:HA	1.77	0.49
3:P:165:ASP:OD1	3:P:166:SER:N	2.45	0.49
3:Q:87:ILE:CD1	3:Q:240:LEU:HD13	2.42	0.49
3:Q:283:TRP:HH2	4:f:4:VAL:HG23	1.77	0.49
3:U:36:VAL:HG13	3:U:41:ASP:HB2	1.94	0.49
4:j:38:ILE:HD12	4:j:455:GLU:HA	1.92	0.49
1:2:231:LYS:CB	1:2:239:GLU:OE1	2.60	0.49
1:3:178:TYR:CD1	1:3:178:TYR:C	2.90	0.49
2:A:307:ASP:O	2:A:308:ALA:C	2.55	0.49
2:B:540:GLN:O	2:B:543:ASN:ND2	2.45	0.49
2:D:68:ASP:OD2	2:D:71:ILE:HG22	2.11	0.49
2:E:229:MET:HE1	2:E:270:ILE:HD13	1.94	0.49
2:H:154:GLN:HA	2:H:157:GLN:HG2	1.93	0.49
2:H:365:ILE:HG22	2:H:372:TRP:HE3	1.77	0.49
2:J:440:SER:N	2:J:443:ASP:OD2	2.38	0.49
2:K:165:SER:CB	2:K:280:LEU:HD23	2.42	0.49
3:V:30:MET:HA	3:V:30:MET:CE	2.29	0.49
4:b:84:GLU:OE2	4:b:84:GLU:C	2.55	0.49
4:c:459:TYR:O	4:c:463:VAL:HG23	2.13	0.49
4:h:151:ASN:O	4:h:154:GLU:OE2	2.30	0.49
4:j:182:SER:O	4:j:310:MET:CE	2.60	0.49
4:j:487:PRO:O	4:j:490:VAL:HB	2.12	0.49
1:w:317:LEU:HD12	1:w:317:LEU:N	2.28	0.49
1:x:208:TRP:O	1:x:229:THR:HG23	2.12	0.49
1:y:162:ASP:HB3	1:y:208:TRP:HH2	1.77	0.49
1:4:171:SER:HB3	1:4:174:ASP:OD1	2.12	0.49
1:5:42:MET:SD	1:5:47:LYS:CB	3.01	0.49
1:5:382:TYR:CD2	1:7:395:ILE:HG13	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:29:TYR:CD1	2:C:29:TYR:O	2.66	0.49
2:E:395:ILE:HD12	2:E:395:ILE:N	2.27	0.49
2:J:7:HIS:ND1	2:K:24:ASN:OD1	2.45	0.49
2:J:364:LYS:O	2:J:375:THR:HG22	2.12	0.49
3:N:283:TRP:CZ3	4:b:4:VAL:N	2.80	0.49
3:P:291:VAL:CG1	4:f:488:GLN:HE21	2.26	0.49
3:T:13:MET:O	3:T:13:MET:CE	2.58	0.49
3:T:301:TYR:CZ	4:i:493:LEU:CD2	2.95	0.49
3:U:4:SER:O	3:U:5:THR:C	2.55	0.49
4:d:10:LEU:HB3	4:e:29:ILE:HD11	1.93	0.49
4:g:368:ASP:OD2	4:g:370:LYS:CG	2.60	0.49
4:k:18:LEU:O	4:k:21:SER:OG	2.29	0.49
4:l:406:GLU:HA	4:l:406:GLU:OE2	2.12	0.49
4:n:108:ASP:O	4:n:111:SER:OG	2.22	0.49
2:A:98:LEU:HD23	2:A:98:LEU:C	2.38	0.49
2:A:136:LYS:HD2	2:A:136:LYS:N	2.27	0.49
2:D:126:ASP:OD1	2:D:126:ASP:C	2.55	0.49
2:G:520:GLU:O	2:G:520:GLU:CD	2.55	0.49
2:G:550:LEU:HD22	1:y:383:GLN:NE2	2.27	0.49
2:I:183:ILE:HD12	2:I:183:ILE:O	2.13	0.49
2:I:440:SER:O	2:I:448:THR:HG23	2.11	0.49
2:J:58:VAL:HG12	2:K:28:ASN:OD1	2.12	0.49
3:N:298:GLN:OE1	4:c:494:LEU:HD23	2.13	0.49
3:O:103:SER:N	3:O:106:ASP:OD2	2.41	0.49
3:P:33:GLY:HA2	4:e:3:GLN:HG3	1.94	0.49
3:Q:8:MET:HG2	3:Q:307:MET:HE1	1.94	0.49
3:Q:103:SER:CA	3:Q:106:ASP:OD2	2.60	0.49
3:U:28:GLU:OE1	3:U:28:GLU:HA	2.13	0.49
3:V:297:LEU:HD21	3:V:301:TYR:HE2	1.76	0.49
4:e:203:PHE:O	4:e:207:ALA:N	2.41	0.49
4:e:310:MET:HE2	4:e:323:GLY:O	2.13	0.49
4:f:422:LEU:HD13	4:f:422:LEU:C	2.37	0.49
4:f:431:ASN:O	4:f:434:ASN:OD1	2.30	0.49
4:i:293:LYS:O	4:i:297:THR:OG1	2.25	0.49
4:o:105:SER:N	4:o:108:ASP:OD2	2.41	0.49
1:2:116:LEU:O	1:2:137:ILE:HD12	2.12	0.49
1:3:179:ASN:HD21	1:3:202:LYS:HB3	1.77	0.49
1:3:186:VAL:HG22	1:3:196:MET:HE3	1.94	0.49
1:5:221:THR:O	1:5:224:THR:OG1	2.28	0.49
1:5:277:VAL:O	1:5:277:VAL:CG2	2.60	0.49
1:6:288:ASP:N	1:6:305:SER:OG	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:7:185:THR:HA	1:7:195:ASP:HA	1.95	0.49
2:B:141:VAL:HG21	2:B:426:VAL:HG13	1.94	0.49
2:B:505:GLN:O	2:B:508:LYS:HG3	2.13	0.49
2:E:214:GLY:H	2:E:277:THR:CB	2.25	0.49
2:E:447:ASP:N	2:E:447:ASP:OD1	2.45	0.49
2:E:481:LEU:O	2:E:485:VAL:HG23	2.12	0.49
2:I:125:GLU:O	3:L:133:ARG:NH2	2.46	0.49
2:I:347:SER:HB2	1:w:234:GLU:HB3	1.95	0.49
2:J:310:ASN:O	2:J:311:ALA:C	2.55	0.49
2:K:158:VAL:HG11	2:K:287:ARG:HB2	1.95	0.49
2:K:461:ASP:C	2:K:461:ASP:OD1	2.55	0.49
3:M:73:VAL:HA	3:M:76:GLU:OE2	2.13	0.49
3:M:203:MET:HE1	3:M:235:GLY:C	2.37	0.49
3:N:287:ILE:HD12	4:b:494:LEU:CD2	2.42	0.49
3:T:249:GLU:C	3:T:249:GLU:OE1	2.55	0.49
4:a:188:VAL:HG11	4:a:287:ALA:HA	1.95	0.49
4:d:230:TYR:HB2	4:d:248:VAL:HG23	1.94	0.49
4:l:202:THR:HG21	4:l:256:GLU:HB3	1.94	0.49
1:w:373:VAL:HA	1:w:376:ILE:CG2	2.43	0.49
1:y:174:ASP:O	1:y:178:TYR:OH	2.12	0.49
1:z:77:ILE:HD13	1:z:96:ARG:CD	2.43	0.49
1:2:118:GLY:N	1:2:135:ALA:O	2.42	0.49
1:2:375:MET:HE1	1:3:391:THR:HB	1.95	0.49
1:4:20:ILE:CB	1:4:375:MET:HE2	2.41	0.49
1:7:146:ALA:HB1	1:7:190:GLN:O	2.13	0.49
1:9:111:MET:SD	1:9:112:GLN:N	2.86	0.49
2:C:65:ARG:NE	2:C:196:ASN:CG	2.71	0.49
2:K:546:PHE:O	2:K:550:LEU:HD23	2.13	0.49
3:M:124:LEU:HD22	3:M:124:LEU:N	2.28	0.49
3:O:24:MET:HE1	3:O:25:LYS:HB3	1.94	0.49
3:O:223:GLU:OE1	3:O:223:GLU:N	2.35	0.49
3:Q:7:MET:SD	3:Q:8:MET:HE1	2.53	0.49
3:Q:122:MET:HE1	3:Q:146:PHE:HB3	1.95	0.49
3:S:30:MET:HE2	3:S:286:VAL:CG2	2.42	0.49
3:V:92:GLU:OE2	3:V:92:GLU:O	2.30	0.49
3:V:280:ASP:OD1	3:V:280:ASP:N	2.46	0.49
4:b:249:SER:N	4:b:258:THR:O	2.42	0.49
4:f:117:THR:HG22	4:f:121:ASN:HD21	1.76	0.49
4:i:38:ILE:HD12	4:i:43:ASP:HB3	1.95	0.49
4:i:233:LYS:HG2	4:i:245:TYR:CE2	2.48	0.49
4:m:480:LEU:O	4:m:480:LEU:HD12	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:n:224:ASP:O	4:n:228:GLY:N	2.45	0.49
1:z:178:TYR:HE2	1:z:181:LYS:HD3	1.78	0.49
1:1:144:MET:HE3	1:1:287:GLY:HA3	1.95	0.49
1:3:79:GLN:HE21	2:C:186:MET:HG2	1.77	0.49
1:5:47:LYS:HD2	1:5:49:GLY:N	2.27	0.49
1:7:231:LYS:HG3	1:7:239:GLU:OE2	2.12	0.49
2:A:115:THR:O	2:A:119:THR:HG23	2.13	0.49
2:A:167:ALA:HA	2:A:170:ASN:OD1	2.13	0.49
2:B:493:LYS:O	2:B:497:THR:HG23	2.12	0.49
2:C:196:ASN:HD22	2:C:196:ASN:N	2.10	0.49
2:E:274:LEU:HD12	2:E:274:LEU:O	2.12	0.49
2:E:467:VAL:N	2:E:472:LYS:O	2.45	0.49
2:E:501:ASN:OD1	2:E:501:ASN:N	2.46	0.49
2:G:220:GLN:NE2	2:G:221:ASP:OD1	2.45	0.49
2:I:155:ASP:O	2:I:158:VAL:HG12	2.12	0.49
2:K:117:LEU:HD23	2:K:117:LEU:O	2.12	0.49
2:K:455:ASN:ND2	2:K:455:ASN:C	2.71	0.49
3:M:263:LEU:C	3:M:263:LEU:HD13	2.38	0.49
3:V:179:ILE:HD11	3:V:246:VAL:HG11	1.94	0.49
4:f:203:PHE:CG	4:f:217:ILE:HD11	2.48	0.49
4:m:296:LEU:HD13	4:m:301:VAL:CG2	2.42	0.49
4:n:84:GLU:HA	4:n:84:GLU:OE2	2.12	0.49
4:o:361:LEU:HD23	4:o:361:LEU:H	1.77	0.49
1:x:104:GLU:OE1	1:x:106:ARG:NH2	2.45	0.49
1:x:175:ALA:HA	1:x:178:TYR:CD2	2.47	0.49
1:z:83:PHE:HZ	1:z:356:LEU:HD11	1.76	0.49
1:1:330:GLY:N	2:C:45:ASN:OD1	2.46	0.49
1:3:345:LEU:N	1:3:345:LEU:HD22	2.27	0.49
1:4:140:PRO:CD	1:4:312:LEU:HD11	2.42	0.49
1:4:358:ASN:OD1	1:4:359:GLY:N	2.46	0.49
2:D:330:ILE:HD12	2:D:424:MET:HB2	1.94	0.49
2:E:484:ASP:OD1	2:E:484:ASP:C	2.55	0.49
2:F:17:ALA:O	2:F:21:THR:HG23	2.13	0.49
2:F:53:TRP:CH2	2:G:194:SER:HB2	2.48	0.49
2:G:414:LEU:C	2:G:414:LEU:HD13	2.38	0.49
2:I:30:ASN:O	2:I:30:ASN:ND2	2.40	0.49
2:I:148:ASP:OD2	2:I:421:ILE:CD1	2.56	0.49
2:I:209:LEU:HD23	2:I:209:LEU:O	2.13	0.49
2:I:306:ALA:CB	2:I:424:MET:HE1	2.43	0.49
2:J:124:ALA:HB2	2:J:453:ASN:OD1	2.13	0.49
3:M:115:GLN:NE2	3:M:119:ASP:OD2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:5:THR:O	3:N:8:MET:HG3	2.13	0.49
3:N:267:ARG:O	3:N:271:GLN:HG2	2.13	0.49
3:Q:8:MET:HB2	3:Q:307:MET:HE1	1.94	0.49
3:R:89:THR:O	3:R:93:LYS:HG2	2.13	0.49
3:S:34:LYS:C	3:S:281:VAL:CG2	2.83	0.49
3:S:67:THR:O	3:S:70:THR:HG22	2.13	0.49
4:f:107:SER:HA	4:f:110:ASP:OD2	2.13	0.49
4:f:441:GLY:O	4:f:444:VAL:HG12	2.13	0.49
4:i:7:THR:O	4:i:8:ASN:HB2	2.13	0.49
4:i:245:TYR:CD2	4:i:270:GLY:CA	2.96	0.49
4:l:467:SER:HG	4:n:488:GLN:CD	2.19	0.49
4:n:291:GLU:H	4:n:291:GLU:CD	2.21	0.49
1:z:30:TYR:HE1	1:z:67:THR:CG2	2.25	0.49
1:z:366:VAL:HG12	1:z:367:ASP:N	2.28	0.49
1:4:167:LYS:HG2	1:4:168:THR:N	2.28	0.49
1:7:6:ALA:HB1	1:7:389:ILE:HG13	1.95	0.49
1:7:230:LEU:HD23	1:7:231:LYS:N	2.28	0.49
2:B:228:THR:HA	2:B:234:THR:HA	1.95	0.49
2:B:300:GLN:C	2:B:302:ALA:N	2.64	0.49
2:E:96:ASP:HB2	2:E:489:THR:HG21	1.94	0.49
2:J:502:VAL:HG11	2:K:150:TYR:CE2	2.47	0.49
3:L:247:ARG:O	3:L:250:LEU:HD12	2.12	0.49
3:M:52:LEU:HD23	3:M:52:LEU:O	2.13	0.49
3:N:203:MET:CE	3:N:235:GLY:HA3	2.42	0.49
3:Q:122:MET:HE2	3:Q:148:GLN:HA	1.95	0.49
3:Q:276:SER:O	3:Q:277:ASN:C	2.55	0.49
3:Q:297:LEU:HD11	3:Q:301:TYR:CE2	2.48	0.49
3:S:168:ARG:NH2	3:S:256:GLU:OE2	2.46	0.49
3:V:23:TRP:HZ3	4:l:486:VAL:HG22	1.77	0.49
4:e:171:ASP:OD1	4:e:171:ASP:N	2.44	0.49
4:g:61:LEU:HB3	4:g:440:LEU:CD1	2.43	0.49
4:g:233:LYS:NZ	4:g:235:THR:OG1	2.46	0.49
4:i:316:ASN:OD1	4:j:134:GLY:O	2.31	0.49
4:k:310:MET:HE1	4:k:332:TYR:CZ	2.48	0.49
4:n:296:LEU:HD21	4:n:345:ILE:CD1	2.42	0.49
1:w:171:SER:HB2	1:w:174:ASP:HB3	1.95	0.49
1:w:403:ARG:C	1:w:403:ARG:CD	2.85	0.49
1:1:250:THR:HG23	1:1:254:ALA:O	2.13	0.48
1:5:149:THR:HG21	1:5:186:VAL:HG12	1.94	0.48
1:5:162:ASP:OD2	1:5:274:ASN:ND2	2.41	0.48
1:6:112:GLN:HB3	1:6:114:MET:SD	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:107:SER:HB2	3:O:50:VAL:HG13	1.94	0.48
2:A:236:VAL:HG22	2:A:241:ALA:CB	2.43	0.48
2:C:252:ASP:C	2:C:252:ASP:OD1	2.56	0.48
2:C:274:LEU:HD13	2:C:274:LEU:C	2.38	0.48
2:D:5:ILE:HG22	2:D:539:LEU:HD22	1.96	0.48
2:D:501:ASN:C	2:D:501:ASN:OD1	2.55	0.48
2:E:171:ASN:O	2:E:175:GLN:HG2	2.13	0.48
2:G:95:ILE:HD12	2:G:95:ILE:N	2.28	0.48
2:H:221:ASP:OD1	2:H:221:ASP:N	2.42	0.48
2:J:40:ILE:C	2:J:41:LEU:HD12	2.38	0.48
2:J:116:SER:HB3	2:J:136:LYS:HE2	1.95	0.48
3:N:307:MET:HG3	3:N:308:GLN:N	2.27	0.48
3:Q:249:GLU:OE1	3:Q:250:LEU:N	2.45	0.48
3:U:197:GLU:OE2	3:U:198:LYS:N	2.46	0.48
4:c:284:VAL:HG22	4:c:288:ASP:OD2	2.12	0.48
4:g:223:PHE:HB3	4:g:277:GLU:HG2	1.95	0.48
4:i:38:ILE:O	4:i:38:ILE:CG2	2.61	0.48
4:o:145:THR:HG22	4:o:157:ASP:OD2	2.13	0.48
1:z:155:GLN:H	1:z:278:ALA:HB3	1.76	0.48
1:2:402:LEU:HD13	1:2:402:LEU:O	2.13	0.48
1:3:367:ASP:OD1	1:3:369:SER:N	2.46	0.48
1:3:403:ARG:HG2	1:4:390:LYS:HD2	1.94	0.48
2:A:433:GLU:OE1	2:A:433:GLU:N	2.44	0.48
2:B:98:LEU:HD21	2:B:150:TYR:CE2	2.48	0.48
2:B:300:GLN:HG3	2:B:359:GLN:C	2.38	0.48
2:B:301:LEU:HD12	2:B:468:VAL:HG21	1.94	0.48
2:C:517:ASN:O	2:C:521:GLU:HG2	2.13	0.48
2:D:118:GLN:O	2:D:121:VAL:HG22	2.13	0.48
2:E:362:ASP:OD1	2:E:362:ASP:C	2.56	0.48
2:E:549:LEU:HD12	2:E:550:LEU:HD12	1.95	0.48
2:G:546:PHE:HB2	1:y:380:ARG:HE	1.78	0.48
2:H:118:GLN:NE2	3:V:65:ALA:HB2	2.28	0.48
2:I:271:PRO:HB2	2:I:273:LYS:CE	2.43	0.48
2:J:166:VAL:HA	2:J:280:LEU:HD21	1.95	0.48
2:K:249:SER:N	2:K:255:ARG:O	2.32	0.48
2:K:520:GLU:OE1	2:K:520:GLU:N	2.39	0.48
3:L:303:THR:O	3:L:307:MET:HG3	2.13	0.48
3:O:24:MET:HE3	3:O:25:LYS:N	2.27	0.48
4:c:310:MET:HE2	4:c:323:GLY:O	2.12	0.48
4:l:110:ASP:C	4:l:110:ASP:OD1	2.56	0.48
4:l:204:LYS:HA	4:l:207:ALA:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:w:253:GLY:HA3	1:x:234:GLU:O	2.12	0.48
1:x:150:THR:O	1:x:260:SER:N	2.45	0.48
1:x:328:SER:HB3	1:y:47:LYS:HD3	1.95	0.48
1:z:144:MET:SD	1:z:304:TYR:HB2	2.53	0.48
1:3:64:GLY:O	2:B:54:ILE:HG21	2.13	0.48
1:5:141:ASN:O	1:5:141:ASN:CG	2.56	0.48
1:7:163:PRO:O	1:7:164:VAL:C	2.57	0.48
2:A:321:GLY:HA2	2:A:441:LYS:H	1.77	0.48
2:C:41:LEU:HD23	2:C:41:LEU:H	1.78	0.48
2:E:215:VAL:HG21	2:E:227:LEU:HD23	1.94	0.48
2:E:229:MET:HG2	2:E:230:ALA:N	2.28	0.48
2:E:303:LEU:HD13	2:E:303:LEU:C	2.38	0.48
2:F:467:VAL:O	2:F:467:VAL:HG12	2.13	0.48
2:I:54:ILE:HG22	2:I:55:GLY:N	2.28	0.48
2:I:304:ALA:HB3	2:I:468:VAL:HG13	1.95	0.48
2:J:284:LEU:HD22	2:J:287:ARG:NH2	2.28	0.48
2:J:317:TYR:CD2	2:J:440:SER:HB3	2.47	0.48
2:K:181:ASP:C	2:K:181:ASP:OD1	2.56	0.48
3:Q:92:GLU:C	3:Q:92:GLU:OE1	2.56	0.48
3:S:62:TYR:CG	3:S:165:ASP:HA	2.49	0.48
3:V:315:LEU:HD22	3:V:315:LEU:C	2.38	0.48
4:h:183:ASP:OD2	4:h:332:TYR:OH	2.27	0.48
4:i:210:LEU:CD1	4:i:262:GLY:HA2	2.44	0.48
1:w:106:ARG:NH2	1:w:141:ASN:OD1	2.40	0.48
1:1:42:MET:N	1:1:51:GLY:O	2.43	0.48
1:8:155:GLN:H	1:8:278:ALA:HB3	1.77	0.48
2:A:198:LEU:HD23	2:A:199:LEU:H	1.78	0.48
2:A:270:ILE:HG22	2:A:274:LEU:HB2	1.95	0.48
2:B:214:GLY:O	2:B:229:MET:CE	2.61	0.48
2:B:299:GLY:O	2:B:302:ALA:HB3	2.12	0.48
2:C:276:ASN:HA	2:C:281:GLY:HA3	1.95	0.48
2:E:92:MET:HE1	2:E:290:ASP:CB	2.43	0.48
2:F:235:LEU:HD12	2:F:236:VAL:HG23	1.95	0.48
2:H:335:VAL:CG2	2:H:414:LEU:HD23	2.41	0.48
2:I:467:VAL:HG13	2:I:468:VAL:HG23	1.95	0.48
2:I:504:LYS:HE2	2:I:504:LYS:HA	1.94	0.48
3:M:72:LYS:O	3:M:75:LEU:N	2.40	0.48
3:M:281:VAL:O	4:a:5:ILE:HD12	2.13	0.48
3:Q:278:LEU:N	3:Q:278:LEU:HD12	2.29	0.48
3:R:203:MET:HE1	3:R:235:GLY:C	2.39	0.48
3:T:301:TYR:CE2	4:i:493:LEU:CD2	2.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:V:14:SER:O	3:V:18:ASN:OD1	2.31	0.48
4:b:84:GLU:OE2	4:b:85:ILE:N	2.45	0.48
4:c:15:GLN:HA	4:c:18:LEU:HD12	1.94	0.48
4:c:350:TYR:CE2	4:c:352:ALA:HA	2.48	0.48
4:e:420:ASP:OD1	4:e:420:ASP:N	2.45	0.48
4:g:6:ASN:C	4:g:7:THR:HG23	2.37	0.48
1:w:75:VAL:HG22	1:w:294:ILE:HD13	1.95	0.48
1:2:135:ALA:HB1	1:2:136:PRO:HD2	1.94	0.48
1:8:74:ASP:O	1:8:359:GLY:N	2.47	0.48
1:8:375:MET:HE2	1:w:391:THR:OG1	2.13	0.48
2:A:362:ASP:OD1	2:A:377:THR:OG1	2.23	0.48
2:F:53:TRP:H	2:F:53:TRP:CD1	2.32	0.48
2:G:329:SER:OG	2:G:425:ASN:N	2.46	0.48
2:G:351:LYS:NZ	2:G:352:VAL:O	2.36	0.48
2:I:348:LEU:HD13	2:I:412:PHE:HB3	1.95	0.48
2:J:441:LYS:CE	2:J:449:GLY:O	2.61	0.48
3:Q:285:SER:O	3:Q:288:SER:N	2.47	0.48
3:R:269:LEU:HD23	3:R:269:LEU:O	2.13	0.48
3:S:126:ASN:O	3:S:127:SER:O	2.32	0.48
4:c:173:LEU:C	4:c:173:LEU:HD13	2.38	0.48
4:k:251:ASP:OD1	4:k:253:THR:HG22	2.13	0.48
4:n:191:TYR:CE2	4:n:285:ALA:HB2	2.49	0.48
1:z:154:MET:HE2	1:z:276:ILE:HD13	1.94	0.48
1:z:182:GLY:N	1:z:198:VAL:O	2.47	0.48
1:z:375:MET:SD	1:z:375:MET:C	2.96	0.48
1:3:116:LEU:HD13	1:3:117:THR:N	2.28	0.48
1:4:42:MET:SD	1:4:53:LYS:HB3	2.53	0.48
1:7:39:PHE:HD1	1:7:54:VAL:HG22	1.79	0.48
1:8:374:ASN:HA	1:8:377:VAL:HG22	1.96	0.48
2:A:26:ILE:HD11	2:A:521:GLU:OE1	2.13	0.48
2:B:298:LEU:HD22	2:B:421:ILE:HD13	1.96	0.48
2:E:306:ALA:HB2	2:E:424:MET:CE	2.43	0.48
2:G:329:SER:C	2:G:423:ASP:OD2	2.57	0.48
2:H:98:LEU:HD13	2:H:104:SER:OG	2.14	0.48
2:H:460:LEU:HD23	2:H:460:LEU:C	2.39	0.48
2:I:349:THR:O	2:I:401:THR:N	2.45	0.48
3:L:110:LEU:O	3:L:114:LEU:HD12	2.13	0.48
3:M:164:VAL:CG2	3:M:170:MET:HE3	2.43	0.48
3:O:13:MET:O	3:O:16:ILE:HG22	2.13	0.48
3:R:23:TRP:CZ2	3:R:290:TYR:CZ	3.02	0.48
3:U:89:THR:O	3:U:93:LYS:HG2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b:396:ASP:OD1	4:b:396:ASP:O	2.32	0.48
4:b:481:ALA:O	4:b:485:GLN:NE2	2.47	0.48
4:h:198:LEU:HD22	4:h:250:VAL:HG11	1.96	0.48
1:w:102:LEU:HD12	1:w:106:ARG:HG2	1.95	0.48
1:w:171:SER:HB2	1:w:174:ASP:HB2	1.94	0.48
1:l:5:GLN:HG2	1:z:22:ASN:HB2	1.96	0.48
1:2:42:MET:SD	1:2:50:LEU:HB3	2.54	0.48
2:B:80:ASN:ND2	2:B:210:ASN:OD1	2.41	0.48
2:B:89:TYR:CE2	2:B:493:LYS:HE3	2.48	0.48
2:F:227:LEU:O	2:F:235:LEU:N	2.43	0.48
2:I:252:ASP:OD1	2:I:413:LEU:HD22	2.13	0.48
2:I:309:PHE:CE1	2:I:327:PHE:CD2	3.02	0.48
2:J:541:THR:O	2:J:545:LEU:HD23	2.14	0.48
2:K:84:GLY:HA3	2:K:278:GLY:C	2.39	0.48
2:K:320:ASP:HA	2:K:441:LYS:HG3	1.95	0.48
3:M:9:TYR:N	3:M:9:TYR:CD1	2.80	0.48
3:P:283:TRP:O	3:P:287:ILE:HG22	2.14	0.48
3:T:258:SER:O	3:T:261:ASP:OD1	2.31	0.48
3:U:34:LYS:HZ3	3:U:34:LYS:HB3	1.79	0.48
4:b:244:GLY:HA3	4:b:266:PRO:HB3	1.95	0.48
4:c:177:GLN:OE1	4:c:177:GLN:C	2.56	0.48
4:c:207:ALA:HB1	4:c:215:GLN:HB2	1.96	0.48
4:i:157:ASP:OD1	4:i:157:ASP:C	2.57	0.48
4:i:316:ASN:CG	4:j:134:GLY:O	2.57	0.48
4:l:171:ASP:OD1	4:l:171:ASP:N	2.46	0.48
4:o:210:LEU:HD13	4:o:246:TYR:CE1	2.49	0.48
1:w:6:ALA:HB1	1:w:389:ILE:HD13	1.94	0.48
1:y:162:ASP:OD1	1:y:163:PRO:HD2	2.13	0.48
1:z:30:TYR:HD1	1:z:362:GLU:O	1.97	0.48
1:z:103:ASP:OD2	1:z:107:ASN:ND2	2.47	0.48
1:1:113:GLY:C	1:1:114:MET:HE2	2.38	0.48
1:1:188:ASP:OD1	1:1:192:ASN:N	2.46	0.48
1:6:77:ILE:HG13	1:6:356:LEU:HD11	1.96	0.48
2:A:40:ILE:HD11	2:A:64:GLN:HB3	1.94	0.48
2:C:254:THR:O	2:C:255:ARG:CG	2.61	0.48
2:E:468:VAL:HG21	2:E:474:PHE:HA	1.96	0.48
2:F:150:TYR:O	2:F:154:GLN:HG2	2.14	0.48
2:H:35:THR:HG21	2:H:65:ARG:CD	2.43	0.48
2:I:101:ASP:OD1	2:I:102:LYS:N	2.47	0.48
2:J:299:GLY:C	2:J:417:VAL:HG21	2.39	0.48
3:M:76:GLU:H	3:M:76:GLU:CD	2.15	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:a:69:ASN:HA	4:a:72:ILE:HD12	1.96	0.48
4:g:495:ARG:NE	4:g:495:ARG:HA	2.29	0.48
4:h:314:ASP:OD1	4:h:317:GLY:N	2.41	0.48
1:x:309:GLU:C	1:x:309:GLU:CD	2.81	0.48
1:x:328:SER:HA	1:x:334:TRP:CD1	2.48	0.48
1:z:84:ARG:O	1:z:85:LEU:HD22	2.14	0.48
1:8:96:ARG:NH2	1:8:362:GLU:OE1	2.46	0.48
1:9:162:ASP:OD1	1:9:163:PRO:HD2	2.14	0.48
2:A:26:ILE:HD11	2:A:521:GLU:CD	2.38	0.48
2:E:432:ALA:HB3	2:E:433:GLU:OE2	2.14	0.48
2:F:75:LEU:HD13	2:F:506:LEU:HB3	1.95	0.48
2:F:247:VAL:HG22	2:F:259:ALA:HB2	1.96	0.48
2:F:484:ASP:OD1	2:G:131:GLN:HG2	2.14	0.48
2:F:550:LEU:N	2:F:550:LEU:HD23	2.29	0.48
3:L:5:THR:HG23	3:L:8:MET:SD	2.54	0.48
3:L:120:GLN:O	3:L:120:GLN:NE2	2.44	0.48
3:L:165:ASP:HB3	3:L:168:ARG:HB3	1.96	0.48
3:N:305:THR:OG1	3:N:306:ASP:N	2.47	0.48
3:P:197:GLU:OE2	3:P:197:GLU:N	2.41	0.48
3:P:295:ALA:HB2	4:f:488:GLN:OE1	2.14	0.48
3:Q:76:GLU:OE1	3:Q:250:LEU:HD13	2.14	0.48
4:f:354:ASP:OD1	4:f:355:GLY:N	2.46	0.48
4:j:372:GLU:HG2	4:j:383:ALA:HB2	1.96	0.48
4:k:225:ASP:OD2	4:k:276:THR:OG1	2.24	0.48
4:l:45:ALA:O	4:l:48:GLN:OE1	2.31	0.48
4:l:176:GLN:O	4:l:404:THR:HG22	2.13	0.48
4:l:459:TYR:HE2	4:m:6:ASN:OD1	1.97	0.48
1:w:375:MET:HG2	1:w:376:ILE:N	2.29	0.48
1:x:133:ASN:OD1	1:x:133:ASN:O	2.32	0.48
1:y:41:ASP:HB2	1:y:43:PHE:CE1	2.49	0.48
1:y:61:PHE:HZ	1:y:324:GLU:OE1	1.94	0.48
1:z:202:LYS:HB2	1:z:208:TRP:CE3	2.48	0.48
1:1:106:ARG:NH1	1:1:139:ILE:HG23	2.29	0.48
1:6:194:HIS:CE1	1:6:251:ILE:HD12	2.49	0.48
1:7:1:MET:HG3	1:7:3:PHE:HB3	1.96	0.48
1:7:75:VAL:N	1:7:98:GLY:O	2.36	0.48
1:8:76:ALA:HB3	1:8:357:THR:OG1	2.14	0.48
2:A:98:LEU:HD12	2:A:150:TYR:CG	2.48	0.48
2:A:275:LEU:HD22	2:A:284:LEU:HD11	1.96	0.48
2:B:133:LEU:HD23	2:B:133:LEU:C	2.38	0.48
2:B:303:LEU:HD23	2:B:303:LEU:C	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:123:ASN:OD1	2:E:123:ASN:O	2.32	0.48
2:E:155:ASP:OD2	2:E:295:ARG:NH2	2.47	0.48
2:G:543:ASN:OD1	2:G:544:ALA:N	2.46	0.48
2:H:142:ASN:HD21	3:U:168:ARG:N	2.12	0.48
2:I:139:GLY:O	2:I:143:GLN:NE2	2.47	0.48
2:J:19:LEU:HD22	3:L:307:MET:HE3	1.94	0.48
2:K:84:GLY:HA2	2:K:279:SER:HA	1.96	0.48
2:K:242:ARG:CZ	2:K:242:ARG:HA	2.44	0.48
2:K:551:ASN:OD1	2:K:552:ILE:N	2.46	0.48
3:M:249:GLU:CD	3:M:249:GLU:C	2.81	0.48
3:M:267:ARG:NH1	3:N:128:THR:O	2.47	0.48
3:O:14:SER:O	3:O:18:ASN:OD1	2.32	0.48
3:R:28:GLU:OE1	3:R:32:THR:CG2	2.61	0.48
3:T:168:ARG:NH2	3:T:256:GLU:OE1	2.47	0.48
4:b:44:ASP:C	4:b:44:ASP:OD1	2.57	0.48
4:d:128:GLY:O	4:d:136:LYS:NZ	2.44	0.48
4:e:409:LEU:O	4:e:413:ASP:OD2	2.32	0.48
4:f:326:VAL:N	4:f:333:TYR:O	2.41	0.48
4:l:254:ASN:OD1	4:l:255:GLY:N	2.47	0.48
4:m:57:ASN:O	4:m:61:LEU:HD23	2.14	0.48
1:y:246:ILE:HG22	1:y:247:THR:N	2.29	0.48
1:3:60:ASP:OD1	1:3:62:THR:N	2.37	0.47
1:4:158:LEU:HB2	1:4:268:GLN:HA	1.95	0.47
1:4:250:THR:HG23	1:4:254:ALA:O	2.14	0.47
1:7:230:LEU:HD22	1:7:232:PHE:CE1	2.49	0.47
1:7:232:PHE:CD1	1:7:268:GLN:HB2	2.49	0.47
1:9:111:MET:HE3	1:x:40:ALA:HB2	1.96	0.47
2:A:195:PRO:HD2	2:A:198:LEU:HD11	1.95	0.47
2:B:92:MET:SD	2:B:92:MET:O	2.72	0.47
2:C:465:SER:OG	2:C:466:ASN:N	2.46	0.47
2:H:15:ALA:O	2:H:19:LEU:HD23	2.13	0.47
2:H:64:GLN:CD	2:H:64:GLN:N	2.72	0.47
2:H:414:LEU:HD13	2:H:416:PRO:HD3	1.96	0.47
2:H:471:ASN:OD1	2:H:472:LYS:NZ	2.41	0.47
2:K:286:PHE:HA	2:K:290:ASP:OD2	2.14	0.47
3:M:72:LYS:O	3:M:74:SER:N	2.47	0.47
3:U:168:ARG:CZ	3:U:260:LEU:HD11	2.44	0.47
3:V:122:MET:CE	3:V:201:PHE:CE1	2.96	0.47
4:m:443:THR:HG22	4:m:447:LEU:HD23	1.95	0.47
1:x:74:ASP:HA	1:x:98:GLY:O	2.14	0.47
1:l:83:PHE:O	1:l:94:TYR:HA	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:102:LEU:HD11	1:2:139:ILE:HG21	1.97	0.47
1:2:135:ALA:HB1	1:2:136:PRO:CD	2.44	0.47
1:3:154:MET:SD	1:3:276:ILE:HG23	2.55	0.47
1:4:366:VAL:O	2:A:1:MET:HE1	2.14	0.47
1:6:111:MET:HE2	1:6:111:MET:HA	1.95	0.47
1:7:392:GLN:NE2	1:7:396:LEU:HD12	2.27	0.47
2:A:155:ASP:HB2	2:A:291:LEU:HD21	1.95	0.47
2:B:354:ASP:OD2	2:B:357:LYS:NZ	2.41	0.47
2:C:110:LEU:HD23	2:C:110:LEU:C	2.39	0.47
2:C:179:LEU:HD13	2:C:202:ARG:HA	1.95	0.47
2:C:346:VAL:HG13	2:C:346:VAL:O	2.14	0.47
2:E:8:ALA:HB3	2:E:539:LEU:CD2	2.44	0.47
2:E:430:ASN:OD1	2:E:431:GLU:N	2.47	0.47
2:J:87:THR:HG21	2:J:282:GLY:CA	2.44	0.47
2:K:392:LYS:HE3	2:K:400:VAL:O	2.13	0.47
3:O:205:ASP:HA	3:O:208:ILE:HD11	1.92	0.47
3:R:258:SER:O	3:R:261:ASP:OD1	2.32	0.47
3:V:224:LYS:O	3:V:224:LYS:HD3	2.14	0.47
4:d:161:LYS:HB2	4:d:163:ILE:HD11	1.96	0.47
4:d:162:GLN:C	4:d:163:ILE:HD13	2.39	0.47
4:i:13:LEU:HD23	4:i:13:LEU:C	2.40	0.47
4:l:203:PHE:O	4:l:207:ALA:N	2.43	0.47
1:4:3:PHE:N	1:4:392:GLN:OE1	2.48	0.47
1:4:42:MET:SD	1:4:53:LYS:HD3	2.54	0.47
1:4:86:VAL:HG13	1:4:117:THR:HG21	1.96	0.47
1:4:288:ASP:OD1	1:4:288:ASP:N	2.45	0.47
1:5:46:SER:HB2	1:5:52:VAL:N	2.29	0.47
1:5:47:LYS:H	1:5:51:GLY:HA2	1.78	0.47
1:6:87:ASP:OD1	1:6:89:ASN:N	2.47	0.47
1:6:324:GLU:N	1:6:324:GLU:OE1	2.46	0.47
2:B:299:GLY:HA2	2:B:421:ILE:HD11	1.96	0.47
2:D:541:THR:O	2:D:545:LEU:HD23	2.14	0.47
2:F:525:LEU:C	2:F:525:LEU:HD13	2.39	0.47
2:H:275:LEU:CD1	2:H:275:LEU:N	2.77	0.47
2:H:303:LEU:HG	2:H:355:SER:HB2	1.96	0.47
2:H:351:LYS:NZ	2:H:399:LYS:HD3	2.29	0.47
2:I:29:TYR:CD1	2:I:29:TYR:C	2.91	0.47
2:I:41:LEU:N	2:I:41:LEU:HD23	2.29	0.47
2:J:306:ALA:HB2	2:J:424:MET:HE2	1.96	0.47
2:K:508:LYS:C	2:K:508:LYS:HD3	2.39	0.47
3:M:23:TRP:NE1	3:M:290:TYR:HD2	2.11	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:281:VAL:HG21	3:N:283:TRP:CD1	2.48	0.47
3:R:28:GLU:OE1	3:R:32:THR:HG23	2.15	0.47
3:S:49:ALA:O	3:S:275:MET:HE1	2.15	0.47
3:U:111:ALA:O	3:U:115:GLN:N	2.41	0.47
4:a:220:ASP:OD2	4:a:280:LYS:NZ	2.42	0.47
4:e:251:ASP:OD2	4:e:253:THR:OG1	2.31	0.47
4:h:125:ARG:NH1	4:h:129:GLN:OE1	2.47	0.47
4:h:489:ASN:OD1	4:h:489:ASN:C	2.57	0.47
4:i:204:LYS:HE3	4:i:215:GLN:O	2.13	0.47
4:l:467:SER:OG	4:n:488:GLN:OE1	2.26	0.47
1:x:12:ALA:HB2	1:x:54:VAL:HG21	1.95	0.47
1:x:17:LEU:HD13	1:x:17:LEU:O	2.13	0.47
1:x:22:ASN:ND2	1:y:43:PHE:CZ	2.82	0.47
1:z:206:ASN:C	1:z:207:GLU:OE2	2.57	0.47
1:1:30:TYR:CE1	1:1:361:LEU:HB2	2.49	0.47
1:2:194:HIS:C	1:2:196:MET:HE1	2.40	0.47
1:5:44:ALA:C	1:5:46:SER:N	2.64	0.47
1:7:235:ASN:HD22	1:7:235:ASN:N	2.12	0.47
1:9:61:PHE:HB3	1:9:96:ARG:NH2	2.30	0.47
1:9:320:PHE:N	1:9:323:ASN:OD1	2.40	0.47
2:E:231:ASN:OD1	2:E:233:TYR:HB3	2.14	0.47
2:G:19:LEU:HD22	2:G:525:LEU:CD1	2.41	0.47
2:G:22:VAL:O	2:G:26:ILE:HG12	2.13	0.47
2:G:504:LYS:HG3	2:G:505:GLN:N	2.29	0.47
2:J:197:ASP:HA	2:J:200:ASP:OD1	2.14	0.47
2:J:329:SER:OG	2:J:425:ASN:O	2.30	0.47
2:J:508:LYS:CD	3:M:7:MET:HE3	2.44	0.47
3:L:75:LEU:O	3:L:79:VAL:HG13	2.15	0.47
3:Q:297:LEU:HD13	3:Q:297:LEU:C	2.40	0.47
3:R:292:MET:HE3	4:i:6:ASN:O	2.15	0.47
3:S:8:MET:HG3	3:S:307:MET:SD	2.54	0.47
3:T:199:ASN:OD1	3:T:201:PHE:N	2.47	0.47
3:T:283:TRP:O	3:T:287:ILE:HG22	2.13	0.47
3:U:234:ARG:NH1	4:l:152:ASP:OD2	2.47	0.47
4:a:44:ASP:OD1	4:a:44:ASP:C	2.57	0.47
4:d:148:VAL:HG11	4:d:156:ILE:HD12	1.96	0.47
4:i:37:ARG:NH2	4:i:454:ILE:O	2.47	0.47
4:j:122:GLU:O	4:j:126:VAL:HG22	2.14	0.47
4:m:421:THR:O	4:m:425:ASP:OD1	2.31	0.47
1:z:195:ASP:C	1:z:196:MET:SD	2.97	0.47
1:1:327:ALA:O	2:C:45:ASN:ND2	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:373:VAL:HG21	2:E:9:MET:HE1	1.95	0.47
1:5:110:ASN:OD1	1:5:112:GLN:N	2.47	0.47
1:6:186:VAL:CG1	1:6:196:MET:HE3	2.39	0.47
1:7:41:ASP:OD1	1:7:42:MET:N	2.48	0.47
1:9:210:VAL:C	1:9:211:TYR:CD1	2.92	0.47
1:9:352:ASN:C	1:9:352:ASN:OD1	2.58	0.47
1:9:379:GLN:OE1	1:x:391:THR:HG22	2.14	0.47
2:A:125:GLU:OE2	3:O:141:THR:OG1	2.30	0.47
2:C:126:ASP:CG	2:C:129:ALA:HB3	2.40	0.47
2:D:511:GLN:O	3:R:7:MET:CE	2.63	0.47
2:E:8:ALA:CB	2:E:539:LEU:CD2	2.93	0.47
2:G:450:ASP:OD2	3:U:142:GLU:N	2.35	0.47
2:H:89:TYR:CZ	2:H:493:LYS:HD3	2.49	0.47
2:H:118:GLN:C	2:H:118:GLN:CD	2.83	0.47
2:H:203:ASP:C	2:H:203:ASP:OD1	2.57	0.47
2:H:298:LEU:HD22	2:H:421:ILE:HD13	1.93	0.47
2:J:498:THR:HG21	2:K:143:GLN:OE1	2.15	0.47
2:K:443:ASP:OD1	2:K:445:ASP:OD1	2.33	0.47
3:L:200:LEU:O	3:L:203:MET:HG2	2.14	0.47
3:M:284:ASN:O	3:M:287:ILE:HG22	2.14	0.47
3:Q:20:GLN:C	3:Q:20:GLN:CD	2.82	0.47
3:Q:153:TYR:OH	3:Q:175:THR:OG1	2.26	0.47
3:R:11:GLN:OE1	3:R:12:ASN:N	2.47	0.47
4:e:6:ASN:C	4:e:6:ASN:OD1	2.57	0.47
4:e:31:ARG:NH1	4:e:37:ARG:O	2.47	0.47
4:f:183:ASP:CB	4:f:310:MET:HE1	2.45	0.47
4:f:417:ALA:O	4:f:420:ASP:OD1	2.32	0.47
4:h:291:GLU:OE2	4:h:291:GLU:N	2.46	0.47
1:w:165:PRO:CB	1:w:168:THR:CB	2.69	0.47
1:w:170:PHE:O	1:w:171:SER:HB2	2.14	0.47
1:w:246:ILE:CG2	1:w:247:THR:N	2.78	0.47
1:1:281:GLN:NE2	1:1:283:GLY:O	2.48	0.47
1:3:400:VAL:HG21	1:4:383:GLN:HB3	1.95	0.47
1:5:379:GLN:CD	1:7:395:ILE:HD11	2.39	0.47
1:6:5:GLN:O	1:6:6:ALA:C	2.58	0.47
1:7:102:LEU:CD2	1:7:139:ILE:HG22	2.44	0.47
1:7:146:ALA:HB2	1:7:286:PRO:HG3	1.96	0.47
1:7:197:ASN:N	1:7:213:HIS:O	2.42	0.47
1:8:41:ASP:O	1:8:43:PHE:N	2.47	0.47
1:9:204:LYS:O	1:9:207:GLU:N	2.44	0.47
2:A:530:GLN:HG2	2:B:546:PHE:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:549:LEU:C	2:A:549:LEU:HD13	2.38	0.47
2:D:45:ASN:ND2	2:D:59:TYR:HE2	2.13	0.47
2:D:489:THR:HG21	3:R:40:SER:HB3	1.96	0.47
2:E:120:LEU:HD22	2:E:124:ALA:HA	1.95	0.47
2:G:467:VAL:HG23	2:G:468:VAL:H	1.80	0.47
2:H:145:LYS:NZ	2:H:424:MET:O	2.47	0.47
2:H:336:TYR:OH	2:H:415:LYS:HD2	2.14	0.47
2:I:74:GLN:OE1	2:I:506:LEU:HD21	2.14	0.47
2:I:425:ASN:O	2:I:427:LYS:NZ	2.37	0.47
2:J:121:VAL:O	2:J:121:VAL:HG12	2.14	0.47
2:J:172:TYR:CD2	2:J:209:LEU:HB2	2.50	0.47
2:K:167:ALA:O	2:K:170:ASN:OD1	2.33	0.47
3:L:219:ASN:O	3:L:221:GLU:N	2.47	0.47
3:R:116:GLY:O	3:R:119:ASP:OD1	2.32	0.47
3:S:49:ALA:HA	3:S:275:MET:HE1	1.97	0.47
3:S:283:TRP:CZ3	4:i:494:LEU:HG	2.50	0.47
3:T:25:LYS:N	3:T:25:LYS:HE2	2.29	0.47
3:V:224:LYS:HA	3:V:224:LYS:HE3	1.96	0.47
3:V:313:PHE:C	3:V:315:LEU:N	2.69	0.47
4:a:79:GLU:OE2	4:a:83:ASN:ND2	2.48	0.47
4:c:350:TYR:CE2	4:c:352:ALA:HB2	2.49	0.47
4:f:351:THR:HB	4:f:390:ASN:HA	1.95	0.47
4:k:254:ASN:OD1	4:k:255:GLY:N	2.47	0.47
4:m:193:ASP:OD1	4:m:193:ASP:N	2.48	0.47
4:n:193:ASP:OD1	4:n:281:ASN:HB2	2.15	0.47
1:w:97:ASN:OD1	1:w:98:GLY:N	2.47	0.47
1:w:167:LYS:C	1:w:169:PRO:HD3	2.40	0.47
1:x:17:LEU:CD1	1:y:2:SER:HB2	2.44	0.47
1:x:116:LEU:HD21	1:x:315:ILE:HD13	1.97	0.47
1:x:331:ASP:O	1:x:332:ASN:CG	2.58	0.47
1:1:382:TYR:CD2	2:C:545:LEU:HD21	2.50	0.47
1:4:16:ASN:C	1:4:16:ASN:ND2	2.72	0.47
1:4:83:PHE:N	1:4:95:SER:O	2.41	0.47
1:4:211:TYR:CD2	1:4:226:ALA:HA	2.49	0.47
1:5:210:VAL:N	1:5:228:THR:O	2.47	0.47
1:5:221:THR:CG2	1:5:224:THR:HG21	2.45	0.47
1:6:71:ARG:NH1	1:8:324:GLU:OE2	2.47	0.47
1:6:76:ALA:HB2	1:6:361:LEU:HA	1.95	0.47
1:6:186:VAL:N	1:6:196:MET:HE1	2.30	0.47
1:7:25:ALA:HB2	2:I:7:HIS:CE1	2.49	0.47
1:8:76:ALA:O	1:8:357:THR:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:8:94:TYR:O	1:8:334:TRP:N	2.36	0.47
1:9:362:GLU:O	1:9:362:GLU:HG2	2.14	0.47
2:A:131:GLN:O	2:A:134:ILE:HG13	2.15	0.47
2:A:275:LEU:O	2:A:276:ASN:C	2.57	0.47
2:A:479:ALA:HB2	3:O:50:VAL:CG1	2.44	0.47
2:B:98:LEU:HD22	2:B:98:LEU:N	2.29	0.47
2:B:300:GLN:O	2:B:303:LEU:N	2.47	0.47
2:D:260:TYR:CE1	2:D:268:ILE:HB	2.49	0.47
2:E:363:TYR:CD1	2:E:376:ARG:HG2	2.50	0.47
2:F:106:LEU:HD23	2:F:143:GLN:HG3	1.97	0.47
2:F:219:VAL:HG12	2:F:220:GLN:H	1.79	0.47
2:F:305:PHE:CD2	2:F:305:PHE:C	2.92	0.47
2:G:533:LEU:HD23	2:G:533:LEU:O	2.14	0.47
2:H:423:ASP:OD1	2:H:423:ASP:C	2.57	0.47
2:H:517:ASN:CA	3:V:3:ILE:HG13	2.45	0.47
2:J:23:SER:O	2:J:26:ILE:N	2.48	0.47
2:K:372:TRP:CZ2	2:K:402:VAL:HB	2.50	0.47
3:L:240:LEU:HD13	3:L:240:LEU:C	2.39	0.47
3:M:301:TYR:CD1	4:o:493:LEU:HB2	2.49	0.47
3:N:281:VAL:HG22	3:N:283:TRP:HA	1.97	0.47
3:N:302:LYS:NZ	4:c:495:ARG:O	2.41	0.47
3:O:163:GLN:NE2	3:O:166:SER:HA	2.30	0.47
3:O:188:VAL:O	3:O:234:ARG:HD2	2.14	0.47
3:Q:129:ASP:HB3	3:Q:135:ILE:HG22	1.95	0.47
3:R:165:ASP:OD1	3:R:166:SER:N	2.48	0.47
3:S:6:GLN:HG3	3:S:7:MET:SD	2.55	0.47
3:S:263:LEU:C	3:S:263:LEU:HD13	2.39	0.47
3:U:275:MET:SD	3:U:275:MET:C	2.98	0.47
3:V:304:PHE:CE2	4:l:494:LEU:HD12	2.50	0.47
4:a:204:LYS:O	4:a:208:THR:N	2.39	0.47
4:b:210:LEU:HD22	4:b:242:LYS:HE3	1.97	0.47
4:e:4:VAL:O	4:e:4:VAL:CG1	2.55	0.47
4:e:417:ALA:O	4:e:420:ASP:OD1	2.33	0.47
4:f:5:ILE:C	4:f:8:ASN:HB3	2.40	0.47
4:g:159:ASP:OD1	4:g:159:ASP:C	2.57	0.47
4:i:91:ARG:NH1	4:i:94:GLU:OE2	2.48	0.47
4:i:422:LEU:O	4:i:422:LEU:HD13	2.14	0.47
4:k:159:ASP:OD1	4:k:161:LYS:NZ	2.41	0.47
4:m:436:ALA:O	4:m:440:LEU:HG	2.15	0.47
4:n:334:SER:O	4:n:346:ASN:OD1	2.32	0.47
1:w:66:THR:HA	1:w:361:LEU:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:w:139:ILE:O	1:w:139:ILE:CG2	2.62	0.47
1:w:202:LYS:C	1:w:202:LYS:CD	2.86	0.47
1:x:67:THR:O	1:x:360:ALA:HB1	2.15	0.47
1:x:77:ILE:HG21	1:x:81:GLY:HA3	1.97	0.47
1:y:348:ALA:HB1	1:y:355:LYS:HA	1.95	0.47
1:1:10:LEU:HD11	1:1:382:TYR:CD2	2.49	0.47
1:1:289:LEU:HD23	1:1:289:LEU:C	2.40	0.47
1:3:31:GLY:HA2	1:3:362:GLU:OE2	2.15	0.47
1:5:121:ALA:HA	1:5:127:THR:O	2.15	0.47
1:5:285:LYS:NZ	1:6:271:THR:O	2.47	0.47
1:6:16:ASN:O	1:6:19:VAL:HG22	2.15	0.47
1:6:77:ILE:HD13	1:6:96:ARG:CG	2.44	0.47
1:8:71:ARG:HG3	1:8:74:ASP:CG	2.40	0.47
1:8:111:MET:CE	1:w:56:GLY:HA3	2.45	0.47
2:A:143:GLN:O	2:A:146:THR:OG1	2.30	0.47
2:A:274:LEU:O	2:A:275:LEU:C	2.57	0.47
2:C:439:GLU:HB2	2:C:448:THR:CG2	2.45	0.47
2:E:92:MET:HE1	2:E:290:ASP:CG	2.40	0.47
2:E:120:LEU:HD23	2:E:129:ALA:HB3	1.96	0.47
2:E:388:ASP:O	2:E:389:ALA:HB3	2.14	0.47
2:H:233:TYR:OH	2:H:261:VAL:O	2.30	0.47
2:H:297:THR:HA	2:H:360:ALA:HB1	1.97	0.47
2:I:309:PHE:HB3	2:I:328:PHE:HD2	1.80	0.47
2:I:453:ASN:O	2:I:456:GLY:N	2.48	0.47
2:J:223:GLY:O	2:J:238:GLY:N	2.47	0.47
2:K:176:ILE:HD11	2:K:205:LEU:HB3	1.96	0.47
2:K:533:LEU:HD12	2:K:533:LEU:O	2.15	0.47
3:O:23:TRP:HZ2	3:O:294:GLN:CB	2.28	0.47
3:R:298:GLN:NE2	4:i:491:LEU:HD11	2.30	0.47
3:V:41:ASP:O	3:V:42:ASP:OD1	2.33	0.47
4:d:16:ASN:HA	4:d:19:ASN:OD1	2.15	0.47
4:d:489:ASN:C	4:d:489:ASN:OD1	2.58	0.47
4:f:105:SER:OG	4:f:108:ASP:OD2	2.23	0.47
4:h:452:SER:HA	4:h:456:ASP:OD1	2.15	0.47
4:j:279:VAL:C	4:j:280:LYS:HD3	2.40	0.47
4:k:310:MET:HE2	4:k:332:TYR:CD1	2.49	0.47
4:n:57:ASN:O	4:n:58:ILE:C	2.58	0.47
1:w:156:ILE:HD13	1:w:158:LEU:HD11	1.96	0.47
1:1:7:VAL:HG12	1:1:11:ASN:HD21	1.80	0.47
1:1:79:GLN:HG2	1:1:80:ASN:H	1.79	0.47
1:2:119:TYR:HB3	1:2:128:ILE:HG23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:186:VAL:CG2	1:2:196:MET:HE3	2.39	0.47
1:4:189:SER:OG	1:4:255:THR:N	2.48	0.47
1:8:42:MET:HG3	1:8:50:LEU:HB2	1.97	0.47
1:8:48:VAL:CG1	1:8:49:GLY:N	2.77	0.47
2:B:186:MET:SD	2:B:186:MET:O	2.72	0.47
2:D:216:GLU:HA	2:D:216:GLU:OE2	2.15	0.47
2:D:368:ASP:OD2	2:D:370:THR:OG1	2.29	0.47
2:D:545:LEU:O	2:D:549:LEU:HD22	2.15	0.47
2:F:227:LEU:HD22	2:F:227:LEU:N	2.30	0.47
2:F:336:TYR:HB2	2:F:413:LEU:HB3	1.96	0.47
2:F:527:ARG:O	2:F:527:ARG:HD3	2.15	0.47
2:G:45:ASN:OD1	1:x:66:THR:HG21	2.15	0.47
2:I:551:ASN:C	2:I:551:ASN:OD1	2.57	0.47
2:K:143:GLN:O	2:K:146:THR:HG22	2.15	0.47
3:M:37:THR:HG23	3:M:38:ASN:OD1	2.15	0.47
3:Q:34:LYS:HA	3:Q:280:ASP:HA	1.96	0.47
4:a:426:LEU:HD22	4:a:426:LEU:N	2.29	0.47
4:d:363:LYS:O	4:d:373:VAL:N	2.39	0.47
4:f:252:LYS:HD2	4:f:252:LYS:N	2.30	0.47
4:i:387:GLU:OE1	4:i:388:GLY:N	2.48	0.47
4:j:159:ASP:C	4:j:159:ASP:OD1	2.57	0.47
1:w:107:ASN:C	1:w:107:ASN:OD1	2.58	0.47
1:w:288:ASP:OD1	1:w:289:LEU:N	2.47	0.47
1:x:319:ASN:ND2	1:x:352:ASN:OD1	2.48	0.47
1:4:83:PHE:O	1:4:94:TYR:HA	2.15	0.47
1:6:63:ASP:OD1	1:6:79:GLN:N	2.48	0.47
1:6:143:LEU:H	1:6:143:LEU:HD12	1.79	0.47
1:7:380:ARG:HH21	2:K:546:PHE:HD2	1.63	0.47
2:C:393:LEU:O	2:C:399:LYS:NZ	2.47	0.47
2:D:54:ILE:HG22	2:D:55:GLY:N	2.30	0.47
2:G:50:ALA:O	2:G:52:GLY:N	2.47	0.47
2:H:48:LEU:HD21	2:H:52:GLY:HA2	1.97	0.47
2:H:343:ASP:OD1	2:H:346:VAL:HG23	2.15	0.47
2:I:4:LEU:HD22	2:I:542:ALA:CB	2.45	0.47
2:I:543:ASN:OD1	2:I:543:ASN:C	2.58	0.47
2:J:365:ILE:HD12	2:J:365:ILE:N	2.30	0.47
2:K:309:PHE:CZ	2:K:459:LEU:HD13	2.50	0.47
3:M:58:GLN:HG3	3:M:62:TYR:CE2	2.50	0.47
3:M:157:GLU:O	3:M:157:GLU:CD	2.58	0.47
3:M:183:ILE:HD12	3:M:183:ILE:O	2.15	0.47
3:M:289:SER:O	3:M:292:MET:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:308:GLN:HE22	3:O:312:LEU:CD1	2.27	0.47
3:R:258:SER:HA	3:R:261:ASP:OD1	2.15	0.47
3:R:310:MET:HE3	3:R:310:MET:C	2.40	0.47
3:S:7:MET:SD	3:S:7:MET:N	2.76	0.47
3:U:86:ALA:O	3:U:89:THR:HG22	2.15	0.47
4:d:244:GLY:HA3	4:d:266:PRO:HB3	1.97	0.47
4:d:494:LEU:O	4:d:494:LEU:HG	2.15	0.47
4:e:416:LEU:O	4:e:420:ASP:OD1	2.33	0.47
4:e:478:SER:OG	4:g:494:LEU:HD11	2.14	0.47
4:i:211:GLY:O	4:i:215:GLN:NE2	2.42	0.47
1:x:307:GLU:OE1	1:x:307:GLU:O	2.33	0.47
1:1:5:GLN:HG2	1:z:22:ASN:N	2.30	0.46
1:4:167:LYS:HD3	1:4:167:LYS:N	2.30	0.46
1:5:29:THR:O	1:5:364:SER:HB3	2.15	0.46
1:7:204:LYS:CG	1:7:207:GLU:HB2	2.45	0.46
2:A:310:ASN:ND2	2:A:310:ASN:H	2.13	0.46
2:A:493:LYS:HZ3	2:A:497:THR:HG21	1.81	0.46
2:C:275:LEU:HD11	2:C:280:LEU:HB3	1.97	0.46
2:E:305:PHE:O	2:E:306:ALA:C	2.57	0.46
2:E:367:PHE:O	2:E:409:ASN:N	2.48	0.46
2:F:124:ALA:CA	2:F:436:MET:HE1	2.45	0.46
2:F:540:GLN:HA	2:F:543:ASN:OD1	2.15	0.46
2:G:441:LYS:HE2	2:G:441:LYS:HA	1.95	0.46
3:L:199:ASN:C	3:L:203:MET:HE3	2.40	0.46
3:M:52:LEU:HD13	3:M:275:MET:HB2	1.97	0.46
3:N:205:ASP:O	3:N:208:ILE:HG22	2.15	0.46
3:P:8:MET:HE3	3:Q:20:GLN:HE21	1.80	0.46
3:S:277:ASN:C	3:S:277:ASN:HD22	2.23	0.46
3:V:59:ASN:C	3:V:59:ASN:OD1	2.57	0.46
4:a:162:GLN:C	4:a:163:ILE:HD13	2.40	0.46
4:b:453:ARG:HD2	4:c:69:ASN:CB	2.44	0.46
4:c:114:ALA:O	4:c:118:GLN:HG2	2.15	0.46
4:f:5:ILE:HD13	4:f:8:ASN:HD22	1.80	0.46
4:j:173:LEU:HD12	4:j:174:ASN:N	2.31	0.46
4:j:433:PHE:O	4:j:437:ILE:HG22	2.15	0.46
4:m:296:LEU:HD12	4:m:301:VAL:HB	1.96	0.46
4:o:289:LEU:HD13	4:o:307:VAL:HG23	1.96	0.46
1:y:110:ASN:OD1	1:y:114:MET:N	2.48	0.46
1:z:42:MET:HG2	1:z:50:LEU:HB2	1.97	0.46
1:z:111:MET:SD	1:z:111:MET:N	2.83	0.46
1:z:206:ASN:O	1:z:232:PHE:N	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:63:ASP:OD1	1:4:78:SER:HA	2.15	0.46
1:5:36:THR:N	1:5:58:THR:O	2.41	0.46
1:5:67:THR:O	1:5:361:LEU:N	2.36	0.46
1:5:221:THR:O	1:5:221:THR:HG23	2.15	0.46
1:9:167:LYS:HD2	1:9:177:SER:HB3	1.97	0.46
2:B:89:TYR:CE1	2:B:493:LYS:HB2	2.50	0.46
2:D:75:LEU:HD11	2:D:79:GLN:HE21	1.80	0.46
2:E:5:ILE:CD1	2:E:542:ALA:HB1	2.45	0.46
2:H:517:ASN:C	2:H:521:GLU:OE1	2.58	0.46
2:K:84:GLY:O	2:K:87:THR:OG1	2.30	0.46
2:K:214:GLY:H	2:K:277:THR:HB	1.80	0.46
2:K:289:GLN:O	2:K:293:GLN:HB3	2.15	0.46
3:M:27:GLY:HA2	3:M:30:MET:HG2	1.97	0.46
3:P:291:VAL:HG12	4:f:488:GLN:HE21	1.79	0.46
3:R:20:GLN:CG	3:R:24:MET:CE	2.93	0.46
3:V:279:VAL:HG23	3:V:280:ASP:OD1	2.14	0.46
4:b:9:SER:O	4:b:10:LEU:C	2.58	0.46
4:b:10:LEU:CD1	4:b:483:ALA:HB2	2.44	0.46
4:h:152:ASP:C	4:h:154:GLU:OE2	2.58	0.46
4:i:494:LEU:HD13	4:i:494:LEU:C	2.40	0.46
4:k:32:LEU:O	4:k:32:LEU:HD12	2.14	0.46
4:o:82:LEU:HD11	4:o:422:LEU:HD12	1.96	0.46
1:w:80:ASN:O	1:w:80:ASN:ND2	2.36	0.46
1:w:168:THR:N	1:w:169:PRO:HD3	2.29	0.46
1:y:342:VAL:HG12	1:y:343:ALA:H	1.80	0.46
1:z:83:PHE:CZ	1:z:356:LEU:HD11	2.50	0.46
1:1:13:ALA:HB3	1:1:382:TYR:CD1	2.50	0.46
1:1:183:THR:HG23	1:1:196:MET:O	2.15	0.46
1:2:307:GLU:OE2	2:C:224:THR:HG23	2.14	0.46
1:4:24:ILE:HG13	1:4:371:GLU:OE2	2.15	0.46
1:5:378:ALA:HA	1:5:381:ASN:OD1	2.16	0.46
2:A:93:SER:O	2:A:97:ASN:OD1	2.33	0.46
2:B:74:GLN:OE1	2:B:74:GLN:O	2.33	0.46
2:B:545:LEU:HB3	2:C:532:TYR:CE2	2.50	0.46
2:C:260:TYR:C	2:C:260:TYR:CD1	2.93	0.46
2:C:535:ASN:HA	2:C:538:VAL:CG1	2.45	0.46
2:D:141:VAL:CG2	2:D:424:MET:HE2	2.38	0.46
2:D:371:ASP:OD2	2:D:384:THR:OG1	2.20	0.46
2:G:38:THR:HG22	2:G:39:THR:N	2.30	0.46
2:G:140:LEU:HD12	2:G:140:LEU:O	2.16	0.46
2:G:329:SER:O	2:G:424:MET:SD	2.73	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:75:LEU:O	2:I:75:LEU:HD22	2.15	0.46
2:I:388:ASP:OD1	2:I:388:ASP:N	2.48	0.46
2:I:467:VAL:HG13	2:I:468:VAL:H	1.79	0.46
3:N:219:ASN:O	3:N:220:VAL:HB	2.15	0.46
3:S:283:TRP:O	3:S:287:ILE:HG22	2.15	0.46
3:V:179:ILE:HG22	3:V:180:PHE:CG	2.51	0.46
3:V:283:TRP:HE1	4:n:5:ILE:CD1	2.28	0.46
3:V:310:MET:O	3:V:313:PHE:N	2.45	0.46
4:a:152:ASP:OD1	4:a:152:ASP:N	2.49	0.46
4:d:108:ASP:OD1	4:d:108:ASP:N	2.47	0.46
4:d:330:ASP:C	4:d:330:ASP:OD1	2.58	0.46
4:d:486:VAL:O	4:d:489:ASN:HB3	2.16	0.46
4:f:18:LEU:HD23	4:f:473:GLN:OE1	2.11	0.46
4:n:29:ILE:CG2	4:n:30:GLU:N	2.78	0.46
1:w:30:TYR:HE2	1:w:361:LEU:HB2	1.80	0.46
1:w:371:GLU:OE2	1:w:371:GLU:N	2.40	0.46
1:2:181:LYS:NZ	1:2:197:ASN:OD1	2.43	0.46
1:3:205:ASP:O	1:3:206:ASN:HB2	2.15	0.46
1:3:237:ILE:HG23	1:3:267:MET:SD	2.56	0.46
1:5:47:LYS:CD	1:5:49:GLY:H	2.28	0.46
1:7:103:ASP:OD1	1:7:103:ASP:N	2.46	0.46
2:B:300:GLN:O	2:B:301:LEU:C	2.55	0.46
2:G:166:VAL:HG13	2:G:244:LEU:CG	2.46	0.46
2:H:359:GLN:CD	2:H:396:ASP:HB3	2.40	0.46
2:H:393:LEU:O	2:H:399:LYS:HA	2.15	0.46
2:H:414:LEU:HD13	2:H:414:LEU:C	2.41	0.46
2:I:310:ASN:HB3	2:I:314:THR:HG23	1.98	0.46
2:I:395:ILE:HG23	2:I:395:ILE:O	2.16	0.46
2:K:5:ILE:O	2:K:9:MET:HG3	2.15	0.46
3:R:23:TRP:CH2	4:f:486:VAL:HG22	2.44	0.46
3:T:307:MET:O	3:T:310:MET:N	2.48	0.46
3:V:276:SER:HA	3:V:280:ASP:OD1	2.15	0.46
4:a:162:GLN:O	4:a:163:ILE:HD13	2.15	0.46
4:c:308:VAL:O	4:c:310:MET:HE1	2.16	0.46
4:f:12:LEU:O	4:f:13:LEU:C	2.56	0.46
4:i:13:LEU:O	4:i:14:THR:C	2.55	0.46
4:j:63:GLN:OE1	4:j:66:ARG:NH1	2.48	0.46
4:n:338:ASN:ND2	4:n:342:SER:OG	2.47	0.46
1:w:373:VAL:O	1:w:376:ILE:HG23	2.15	0.46
1:2:172:VAL:HG12	1:2:213:HIS:CG	2.51	0.46
1:5:42:MET:CG	1:5:47:LYS:HE3	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:190:GLN:O	1:5:190:GLN:HG2	2.15	0.46
1:5:310:GLN:OE1	1:5:312:LEU:HD22	2.16	0.46
1:6:111:MET:HE2	1:6:111:MET:CA	2.46	0.46
1:7:333:VAL:H	2:I:45:ASN:HB3	1.81	0.46
1:8:74:ASP:OD1	1:8:74:ASP:N	2.47	0.46
2:A:123:ASN:OD1	3:O:133:ARG:NH1	2.48	0.46
2:A:386:THR:HG22	2:A:387:LYS:N	2.30	0.46
2:B:221:ASP:OD1	2:B:222:GLY:N	2.48	0.46
2:B:494:THR:O	2:B:498:THR:HG23	2.16	0.46
2:D:151:LEU:HD23	2:D:295:ARG:HG3	1.96	0.46
2:E:531:TYR:CE2	1:y:28:ALA:HB2	2.51	0.46
2:F:443:ASP:OD1	2:F:444:PRO:HD2	2.15	0.46
2:F:511:GLN:HG3	3:T:7:MET:HE1	1.96	0.46
2:I:293:GLN:OE1	2:I:294:THR:N	2.49	0.46
2:J:281:GLY:C	2:J:285:THR:HG1	2.22	0.46
2:J:335:VAL:HA	2:J:413:LEU:O	2.14	0.46
2:K:307:ASP:CG	2:K:355:SER:OG	2.59	0.46
2:K:395:ILE:HG22	2:K:395:ILE:O	2.15	0.46
3:L:24:MET:SD	3:V:8:MET:HG3	2.55	0.46
3:N:281:VAL:HG11	3:N:283:TRP:CD2	2.50	0.46
3:O:168:ARG:HD2	3:O:170:MET:CE	2.46	0.46
3:P:274:GLN:HE21	3:P:278:LEU:HD23	1.80	0.46
3:P:298:GLN:OE1	3:P:298:GLN:HA	2.15	0.46
3:Q:284:ASN:O	3:Q:286:VAL:HG12	2.15	0.46
3:R:11:GLN:CD	3:R:12:ASN:N	2.74	0.46
3:S:274:GLN:OE1	3:S:278:LEU:HD22	2.16	0.46
3:U:165:ASP:O	3:U:166:SER:C	2.59	0.46
4:b:396:ASP:OD1	4:b:396:ASP:C	2.58	0.46
4:c:409:LEU:HD12	4:d:152:ASP:OD1	2.15	0.46
4:g:246:TYR:HB2	4:g:259:LEU:HD11	1.97	0.46
4:h:420:ASP:OD1	4:h:421:THR:N	2.48	0.46
4:l:88:ASN:ND2	4:l:122:GLU:OE1	2.47	0.46
4:l:131:GLN:OE1	4:l:132:PHE:N	2.49	0.46
4:l:346:ASN:N	4:l:346:ASN:OD1	2.47	0.46
1:w:158:LEU:HD23	1:w:208:TRP:CD2	2.50	0.46
1:z:201:VAL:N	1:z:209:ALA:O	2.45	0.46
1:1:10:LEU:HB2	1:1:385:ASN:HB3	1.97	0.46
1:4:157:ASN:CG	1:4:275:ASN:ND2	2.74	0.46
1:6:17:LEU:HD13	1:6:378:ALA:CB	2.46	0.46
2:A:307:ASP:OD1	2:A:308:ALA:N	2.49	0.46
2:A:429:THR:HG22	2:A:430:ASN:OD1	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:318:ASP:OD1	2:D:320:ASP:OD1	2.33	0.46
2:D:367:PHE:O	2:D:409:ASN:HA	2.15	0.46
2:D:517:ASN:O	2:D:521:GLU:OE2	2.34	0.46
2:E:505:GLN:O	2:E:509:GLN:OE1	2.34	0.46
2:F:98:LEU:C	2:F:98:LEU:HD13	2.40	0.46
2:G:247:VAL:HG21	2:G:259:ALA:HB2	1.98	0.46
2:H:313:HIS:ND1	2:H:325:LYS:O	2.38	0.46
2:I:488:LYS:O	2:I:492:LEU:HG	2.15	0.46
2:J:357:LYS:CG	2:J:357:LYS:O	2.63	0.46
2:J:459:LEU:O	2:J:462:LEU:HG	2.16	0.46
2:K:244:LEU:CD2	2:K:260:TYR:HB3	2.46	0.46
2:K:316:GLY:HA3	2:K:455:ASN:OD1	2.16	0.46
3:M:36:VAL:CG2	3:M:41:ASP:HB2	2.45	0.46
3:O:38:ASN:OD1	3:O:39:PRO:HD2	2.16	0.46
3:O:190:GLU:OE2	3:O:234:ARG:NH1	2.49	0.46
3:P:170:MET:HE3	3:P:253:GLN:HB3	1.96	0.46
3:Q:120:GLN:OE1	3:Q:120:GLN:O	2.34	0.46
3:R:8:MET:HE1	3:R:9:TYR:CZ	2.50	0.46
3:R:73:VAL:N	3:R:76:GLU:OE1	2.48	0.46
3:R:92:GLU:OE1	3:R:92:GLU:HA	2.15	0.46
3:R:312:LEU:O	3:R:313:PHE:CD1	2.69	0.46
3:V:289:SER:HB3	3:V:293:GLN:HE22	1.81	0.46
4:b:451:ARG:HG2	4:b:451:ARG:HH11	1.81	0.46
4:b:453:ARG:HD2	4:c:69:ASN:CG	2.40	0.46
4:b:490:VAL:HA	4:b:493:LEU:HD23	1.98	0.46
4:c:13:LEU:C	4:c:13:LEU:CD2	2.89	0.46
4:f:8:ASN:O	4:f:9:SER:C	2.58	0.46
4:j:454:ILE:CD1	4:j:454:ILE:N	2.79	0.46
4:k:251:ASP:OD2	4:k:253:THR:HG22	2.15	0.46
4:k:251:ASP:OD2	4:k:253:THR:CG2	2.64	0.46
4:l:152:ASP:O	4:l:152:ASP:OD1	2.34	0.46
4:m:106:GLN:OE1	4:m:177:GLN:HB2	2.16	0.46
4:m:485:GLN:O	4:m:486:VAL:C	2.58	0.46
4:n:6:ASN:C	4:n:7:THR:HG22	2.40	0.46
4:n:207:ALA:HB1	4:n:215:GLN:HG2	1.98	0.46
1:w:164:VAL:HA	1:w:202:LYS:NZ	2.31	0.46
1:y:289:LEU:HD12	1:y:304:TYR:CZ	2.51	0.46
1:1:79:GLN:OE1	1:1:354:GLY:CA	2.63	0.46
1:1:386:ALA:C	2:C:552:ILE:HD12	2.41	0.46
1:1:396:LEU:O	1:1:400:VAL:HG23	2.16	0.46
1:4:83:PHE:O	1:4:95:SER:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:261:LEU:C	1:4:261:LEU:HD13	2.41	0.46
1:8:322:ASN:OD1	1:8:324:GLU:HG3	2.16	0.46
1:9:201:VAL:HB	1:9:211:TYR:CE1	2.51	0.46
2:A:449:GLY:HA3	3:O:139:TYR:HE2	1.80	0.46
2:C:101:ASP:OD1	2:C:101:ASP:N	2.48	0.46
2:C:263:GLU:OE1	2:C:264:ALA:N	2.36	0.46
2:C:469:GLY:C	2:C:471:ASN:H	2.23	0.46
2:C:549:LEU:O	2:C:549:LEU:HD23	2.16	0.46
2:D:19:LEU:HA	2:D:22:VAL:HG12	1.98	0.46
2:F:511:GLN:HB3	3:T:7:MET:SD	2.55	0.46
2:G:224:THR:HG21	1:x:307:GLU:OE2	2.16	0.46
2:H:123:ASN:HD22	3:V:133:ARG:HH22	1.64	0.46
2:J:273:LYS:HG3	2:J:285:THR:HA	1.97	0.46
2:J:551:ASN:O	2:J:552:ILE:C	2.58	0.46
2:K:428:VAL:HG13	2:K:433:GLU:HB2	1.98	0.46
3:L:196:SER:O	3:L:198:LYS:NZ	2.48	0.46
3:M:236:LEU:HD23	3:M:236:LEU:O	2.16	0.46
4:d:475:ALA:O	4:d:479:VAL:HG23	2.16	0.46
4:e:331:ASP:OD1	4:e:363:LYS:NZ	2.46	0.46
4:i:308:VAL:HG23	4:i:310:MET:HE1	1.98	0.46
4:k:163:ILE:HG23	4:k:168:LEU:HD21	1.96	0.46
4:n:191:TYR:CZ	4:n:285:ALA:HB2	2.51	0.46
1:y:314:GLN:HA	1:y:314:GLN:OE1	2.16	0.46
1:z:76:ALA:HB3	1:z:357:THR:OG1	2.15	0.46
1:2:21:GLY:O	1:2:24:ILE:HG12	2.15	0.46
1:3:199:TYR:C	1:3:200:PHE:CD1	2.94	0.46
1:3:376:ILE:HA	1:3:379:GLN:HG2	1.98	0.46
1:4:248:THR:O	1:4:256:ALA:HB1	2.15	0.46
1:4:349:GLY:N	1:4:354:GLY:O	2.44	0.46
1:5:370:LYS:O	1:5:374:ASN:OD1	2.34	0.46
1:6:189:SER:O	1:6:189:SER:OG	2.19	0.46
1:7:271:THR:O	1:7:271:THR:OG1	2.32	0.46
2:A:289:GLN:HG2	2:A:290:ASP:N	2.31	0.46
2:B:116:SER:OG	2:B:136:LYS:HG3	2.16	0.46
2:B:364:LYS:O	2:B:375:THR:N	2.47	0.46
2:F:409:ASN:OD1	2:F:409:ASN:C	2.59	0.46
2:G:159:ASN:OD1	2:G:287:ARG:NH1	2.38	0.46
2:H:524:ASN:HB3	2:H:528:TYR:CE2	2.51	0.46
2:J:439:GLU:OE2	2:J:439:GLU:CA	2.64	0.46
2:J:439:GLU:OE2	2:J:452:ASP:OD2	2.34	0.46
2:J:481:LEU:HD13	2:J:481:LEU:C	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:237:GLN:H	2:K:240:THR:CG2	2.28	0.46
2:K:342:ALA:N	2:K:410:ASP:OD2	2.43	0.46
3:M:249:GLU:OE1	3:M:250:LEU:N	2.49	0.46
3:M:283:TRP:CE2	4:a:5:ILE:HG12	2.51	0.46
3:N:283:TRP:HH2	4:b:4:VAL:CB	2.26	0.46
3:P:33:GLY:O	3:P:34:LYS:NZ	2.46	0.46
3:S:64:LEU:O	3:S:67:THR:OG1	2.30	0.46
4:a:368:ASP:OD1	4:a:369:GLY:N	2.49	0.46
4:f:37:ARG:NH2	4:f:454:ILE:O	2.48	0.46
4:g:486:VAL:HB	4:g:487:PRO:HD3	1.97	0.46
4:h:254:ASN:OD1	4:h:255:GLY:N	2.48	0.46
4:h:479:VAL:HG13	4:i:29:ILE:HD12	1.96	0.46
4:j:284:VAL:HG23	4:j:288:ASP:OD2	2.15	0.46
4:j:493:LEU:O	4:j:495:ARG:CZ	2.64	0.46
4:k:44:ASP:C	4:k:44:ASP:OD1	2.57	0.46
4:n:183:ASP:OD1	4:n:332:TYR:OH	2.31	0.46
1:w:185:THR:HG22	1:w:187:TYR:CE1	2.51	0.46
1:x:246:ILE:HG22	1:x:247:THR:N	2.30	0.46
1:y:161:THR:O	1:y:161:THR:CG2	2.64	0.46
1:1:112:GLN:O	1:1:114:MET:HE3	2.16	0.46
1:1:382:TYR:CG	2:C:545:LEU:HD21	2.51	0.46
1:3:20:ILE:HD11	1:3:371:GLU:HA	1.97	0.46
1:4:367:ASP:HB2	2:A:1:MET:HE2	1.97	0.46
1:5:289:LEU:HD13	1:5:304:TYR:CE1	2.51	0.46
1:6:86:VAL:HG13	1:6:117:THR:HG21	1.97	0.46
1:8:42:MET:N	1:8:53:LYS:HZ1	2.12	0.46
2:A:131:GLN:OE1	2:A:134:ILE:HD11	2.16	0.46
2:A:136:LYS:HA	2:A:136:LYS:HE3	1.98	0.46
2:A:310:ASN:HD21	2:A:328:PHE:HD2	1.64	0.46
2:B:140:LEU:HD23	2:B:140:LEU:C	2.40	0.46
2:D:525:LEU:HD23	2:D:525:LEU:C	2.41	0.46
2:E:99:LEU:HD23	2:E:99:LEU:H	1.81	0.46
2:F:309:PHE:CD2	2:F:328:PHE:CE2	3.03	0.46
2:G:309:PHE:O	2:G:310:ASN:C	2.59	0.46
2:H:118:GLN:HG3	3:V:61:GLN:HB3	1.98	0.46
2:H:331:GLY:HA2	2:H:423:ASP:CG	2.41	0.46
2:H:494:THR:O	2:H:498:THR:HG23	2.16	0.46
2:J:518:LEU:HD11	3:M:315:LEU:HD21	1.98	0.46
2:K:459:LEU:O	2:K:462:LEU:HG	2.16	0.46
3:M:219:ASN:OD1	3:M:219:ASN:N	2.49	0.46
3:P:13:MET:HA	3:P:13:MET:CE	2.37	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:33:GLY:C	4:e:3:GLN:HB3	2.40	0.46
3:Q:200:LEU:HA	3:Q:203:MET:HG3	1.98	0.46
3:S:251:GLY:CA	4:i:41:ALA:HB1	2.46	0.46
3:U:168:ARG:NH1	3:U:260:LEU:HD11	2.31	0.46
4:f:3:GLN:HB3	4:f:6:ASN:CB	2.46	0.46
4:f:106:GLN:O	4:f:110:ASP:OD2	2.34	0.46
4:h:310:MET:HE3	4:h:325:ALA:HB3	1.98	0.46
4:k:162:GLN:C	4:k:163:ILE:HD13	2.41	0.46
1:w:154:MET:HA	1:w:278:ALA:O	2.15	0.46
1:y:86:VAL:HG22	1:y:117:THR:CG2	2.45	0.46
1:y:107:ASN:HA	1:y:138:THR:HG22	1.98	0.46
1:3:20:ILE:HD11	1:3:371:GLU:O	2.16	0.46
1:5:41:ASP:O	1:5:42:MET:CB	2.64	0.46
1:7:27:SER:O	1:7:364:SER:OG	2.27	0.46
1:7:69:THR:OG1	1:7:74:ASP:OD2	2.34	0.46
1:7:78:SER:O	1:7:354:GLY:HA3	2.16	0.46
1:7:208:TRP:O	1:7:229:THR:HG23	2.16	0.46
1:9:315:ILE:HD13	1:9:315:ILE:N	2.31	0.46
2:C:45:ASN:O	2:C:46:SER:C	2.56	0.46
2:D:303:LEU:C	2:D:303:LEU:HD13	2.41	0.46
2:E:363:TYR:HD1	2:E:376:ARG:HG2	1.81	0.46
2:E:498:THR:O	2:E:501:ASN:OD1	2.34	0.46
2:G:520:GLU:CD	2:G:524:ASN:ND2	2.73	0.46
2:I:35:THR:HG22	2:I:514:SER:HB3	1.97	0.46
2:J:180:ASN:HA	2:J:183:ILE:HG22	1.97	0.46
3:O:86:ALA:HB1	3:O:121:LEU:HD23	1.98	0.46
3:R:34:LYS:HG3	3:R:279:VAL:HG22	1.98	0.46
3:S:64:LEU:O	3:S:68:PHE:HD1	1.98	0.46
4:b:368:ASP:OD1	4:b:369:GLY:N	2.48	0.46
4:j:95:LEU:HD22	4:j:95:LEU:N	2.30	0.46
4:m:243:ASP:OD1	4:m:243:ASP:O	2.34	0.46
4:m:331:ASP:OD1	4:m:363:LYS:NZ	2.41	0.46
1:x:144:MET:HB2	1:x:304:TYR:CD2	2.51	0.46
1:y:179:ASN:N	1:y:200:PHE:O	2.46	0.46
1:z:77:ILE:HG12	1:z:83:PHE:CE1	2.50	0.46
1:1:395:ILE:CG2	1:z:382:TYR:CE1	3.00	0.45
1:2:78:SER:OG	1:2:355:LYS:O	2.27	0.45
1:3:60:ASP:OD1	1:3:60:ASP:C	2.57	0.45
1:3:79:GLN:NE2	2:C:186:MET:HG2	2.30	0.45
1:4:312:LEU:HD23	1:4:312:LEU:N	2.31	0.45
1:7:170:PHE:CE1	1:7:171:SER:O	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:44:ALA:HB2	2:A:59:TYR:HB3	1.98	0.45
2:A:488:LYS:O	2:A:492:LEU:HD23	2.16	0.45
2:B:97:ASN:C	2:B:97:ASN:HD22	2.24	0.45
2:D:36:ARG:NH1	2:D:513:VAL:O	2.48	0.45
2:G:542:ALA:O	2:G:546:PHE:CD2	2.69	0.45
2:H:13:ASN:C	2:H:13:ASN:OD1	2.60	0.45
2:H:92:MET:HE3	2:H:92:MET:CA	2.45	0.45
2:I:345:THR:O	1:w:234:GLU:HB2	2.16	0.45
2:K:155:ASP:O	2:K:159:ASN:ND2	2.46	0.45
3:L:195:ASP:OD1	3:L:198:LYS:NZ	2.47	0.45
3:O:281:VAL:CG2	3:O:286:VAL:HG11	2.45	0.45
3:U:311:SER:O	3:U:314:GLN:HB3	2.15	0.45
4:a:434:ASN:O	4:a:437:ILE:HG22	2.16	0.45
4:e:251:ASP:OD1	4:e:253:THR:HG23	2.15	0.45
4:h:157:ASP:N	4:h:157:ASP:OD1	2.48	0.45
4:i:101:ASN:OD1	4:j:67:ASN:HB3	2.16	0.45
4:k:426:LEU:O	4:k:429:VAL:HG12	2.15	0.45
4:l:44:ASP:C	4:l:44:ASP:OD1	2.58	0.45
4:m:11:SER:O	4:m:15:GLN:HG3	2.16	0.45
4:n:124:ASP:OD1	4:n:165:SER:OG	2.23	0.45
4:n:309:LYS:HE2	4:n:324:LEU:HD23	1.97	0.45
1:x:113:GLY:O	1:x:115:GLN:NE2	2.49	0.45
1:y:174:ASP:OD1	1:y:175:ALA:N	2.46	0.45
1:z:307:GLU:O	1:z:308:GLN:NE2	2.38	0.45
1:1:69:THR:HG21	1:1:74:ASP:OD2	2.15	0.45
1:3:386:ALA:HB2	2:A:549:LEU:HD23	1.98	0.45
1:4:17:LEU:HD23	1:4:375:MET:SD	2.56	0.45
1:4:158:LEU:HD11	1:4:232:PHE:CZ	2.51	0.45
1:5:85:LEU:HD13	1:5:114:MET:CB	2.46	0.45
1:5:167:LYS:HB2	1:5:177:SER:HB3	1.97	0.45
1:7:170:PHE:CZ	1:7:172:VAL:HA	2.51	0.45
1:8:393:ASP:OD1	1:8:393:ASP:C	2.58	0.45
1:9:30:TYR:CD1	1:9:97:ASN:OD1	2.70	0.45
1:9:42:MET:HE3	1:9:51:GLY:C	2.41	0.45
2:A:525:LEU:CD2	2:K:541:THR:HG21	2.45	0.45
2:B:115:THR:HG22	3:P:61:GLN:HG3	1.97	0.45
2:C:15:ALA:O	2:C:19:LEU:CD2	2.63	0.45
2:C:518:LEU:H	2:C:518:LEU:HD22	1.81	0.45
2:F:23:SER:HA	2:F:26:ILE:HG22	1.98	0.45
2:F:454:ARG:NH2	3:T:139:TYR:OH	2.49	0.45
2:G:186:MET:SD	1:y:79:GLN:HG2	2.56	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:260:TYR:C	2:H:260:TYR:CD1	2.93	0.45
2:I:117:LEU:CD2	2:I:460:LEU:HD13	2.46	0.45
2:I:306:ALA:HB2	2:I:424:MET:HE1	1.97	0.45
3:L:25:LYS:O	3:L:29:GLN:HG3	2.16	0.45
3:N:252:THR:HG21	3:O:113:ASP:HA	1.98	0.45
3:O:168:ARG:CZ	3:O:170:MET:SD	3.05	0.45
3:O:263:LEU:HD11	3:O:267:ARG:NH1	2.31	0.45
3:O:310:MET:SD	3:O:311:SER:N	2.90	0.45
3:S:200:LEU:HA	3:S:203:MET:HE3	1.98	0.45
4:b:84:GLU:C	4:b:84:GLU:CD	2.84	0.45
4:c:173:LEU:HD21	4:c:408:PRO:HB3	1.97	0.45
4:c:368:ASP:OD1	4:c:368:ASP:N	2.46	0.45
4:g:6:ASN:O	4:g:7:THR:OG1	2.28	0.45
4:j:486:VAL:HB	4:j:487:PRO:HD3	1.97	0.45
4:l:440:LEU:O	4:l:444:VAL:HG23	2.16	0.45
4:o:353:ASP:O	4:o:392:LYS:HE3	2.16	0.45
1:w:160:SER:HB2	1:w:268:GLN:HE21	1.82	0.45
1:w:362:GLU:O	1:w:362:GLU:OE2	2.34	0.45
1:x:114:MET:N	1:x:114:MET:SD	2.88	0.45
1:x:158:LEU:HB3	1:x:208:TRP:CZ2	2.51	0.45
1:y:7:VAL:O	1:y:11:ASN:OD1	2.34	0.45
1:z:110:ASN:ND2	1:z:112:GLN:OE1	2.43	0.45
1:1:368:LEU:HD11	2:D:546:PHE:CE1	2.51	0.45
1:3:124:THR:HG23	1:3:124:THR:O	2.16	0.45
1:3:144:MET:SD	1:3:145:ALA:O	2.75	0.45
1:3:170:PHE:CG	1:3:171:SER:N	2.83	0.45
1:5:331:ASP:N	1:7:41:ASP:O	2.42	0.45
1:6:99:GLN:O	1:6:110:ASN:ND2	2.49	0.45
1:7:80:ASN:O	1:7:354:GLY:N	2.50	0.45
2:B:305:PHE:HB2	2:B:474:PHE:CE1	2.51	0.45
2:B:366:VAL:HA	2:B:410:ASP:O	2.15	0.45
2:C:88:ARG:HH11	2:C:88:ARG:HG3	1.81	0.45
2:C:130:ARG:HB3	2:C:434:ILE:HD12	1.97	0.45
2:C:445:ASP:OD1	2:C:445:ASP:N	2.49	0.45
2:C:472:LYS:HE3	2:C:477:ALA:HB2	1.98	0.45
2:D:229:MET:SD	2:D:231:ASN:OD1	2.74	0.45
2:D:546:PHE:CZ	2:D:550:LEU:HD11	2.51	0.45
2:F:143:GLN:OE1	2:F:147:THR:HG23	2.16	0.45
2:I:5:ILE:HG13	2:I:539:LEU:HD11	1.98	0.45
3:M:276:SER:CB	3:M:280:ASP:OD2	2.64	0.45
3:O:148:GLN:H	3:O:148:GLN:CD	2.25	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:170:MET:HB3	3:O:253:GLN:HE21	1.81	0.45
3:O:197:GLU:CD	3:O:202:VAL:HG11	2.40	0.45
3:R:20:GLN:HG2	3:R:24:MET:HE1	1.99	0.45
3:S:282:ASP:OD2	4:i:2:ALA:N	2.49	0.45
3:T:24:MET:O	3:T:28:GLU:OE2	2.33	0.45
4:a:148:VAL:HG11	4:a:156:ILE:HD12	1.98	0.45
4:a:244:GLY:HA3	4:a:266:PRO:HB3	1.99	0.45
4:a:371:THR:HG22	4:a:372:GLU:N	2.31	0.45
4:d:143:THR:OG1	4:d:159:ASP:OD1	2.32	0.45
4:d:223:PHE:N	4:d:277:GLU:O	2.40	0.45
4:e:492:SER:O	4:e:495:ARG:NH1	2.50	0.45
4:g:480:LEU:HD23	4:g:480:LEU:O	2.16	0.45
4:i:492:SER:O	4:i:495:ARG:NH1	2.46	0.45
4:j:54:PHE:O	4:j:58:ILE:HG12	2.17	0.45
4:j:454:ILE:N	4:j:454:ILE:HD12	2.31	0.45
1:1:188:ASP:OD2	1:1:194:HIS:NE2	2.45	0.45
1:3:231:LYS:HB2	1:3:239:GLU:HB3	1.98	0.45
1:3:403:ARG:HG2	1:3:403:ARG:HH11	1.81	0.45
1:5:20:ILE:HD11	1:5:371:GLU:CA	2.45	0.45
1:6:66:THR:HA	1:6:362:GLU:HA	1.99	0.45
1:6:77:ILE:HD11	1:6:83:PHE:CZ	2.51	0.45
1:7:17:LEU:HD11	1:7:382:TYR:HD2	1.81	0.45
1:7:135:ALA:HB1	1:7:136:PRO:CD	2.47	0.45
1:7:365:ASN:HA	2:J:1:MET:SD	2.57	0.45
1:8:142:THR:HG22	1:8:143:LEU:N	2.31	0.45
1:8:369:SER:O	1:8:373:VAL:HG23	2.16	0.45
2:A:2:SER:O	2:A:5:ILE:HG12	2.16	0.45
2:A:121:VAL:HG21	2:A:460:LEU:HG	1.98	0.45
2:A:359:GLN:HB3	2:A:361:THR:HG22	1.98	0.45
2:B:29:TYR:C	2:B:29:TYR:CD1	2.95	0.45
2:B:300:GLN:CD	2:B:301:LEU:N	2.75	0.45
2:B:303:LEU:O	2:B:306:ALA:HB3	2.16	0.45
2:B:341:ASN:HB2	2:B:410:ASP:CG	2.41	0.45
2:B:415:LYS:HE3	2:B:418:SER:HB2	1.98	0.45
2:C:247:VAL:O	2:C:257:THR:N	2.48	0.45
2:D:197:ASP:N	2:D:197:ASP:OD1	2.49	0.45
2:D:504:LYS:NZ	3:R:10:GLU:OE1	2.48	0.45
2:E:353:VAL:HG11	2:E:399:LYS:HE2	1.97	0.45
2:E:545:LEU:HD23	1:y:379:GLN:CD	2.42	0.45
2:F:70:PHE:CZ	2:G:157:GLN:HB2	2.52	0.45
2:F:98:LEU:O	2:F:98:LEU:HD22	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:434:ILE:HD13	2:G:436:MET:HG2	1.97	0.45
2:H:229:MET:CE	2:H:275:LEU:HG	2.46	0.45
2:K:372:TRP:O	2:K:385:ALA:N	2.47	0.45
2:K:473:THR:N	2:K:476:ASP:OD1	2.50	0.45
3:L:122:MET:HE3	3:L:122:MET:C	2.42	0.45
3:O:195:ASP:OD1	3:O:196:SER:N	2.50	0.45
3:T:11:GLN:O	3:T:14:SER:OG	2.28	0.45
3:V:75:LEU:HD11	4:l:443:THR:HG23	1.99	0.45
4:b:44:ASP:OD1	4:b:47:GLY:N	2.45	0.45
4:c:144:LEU:C	4:c:144:LEU:HD13	2.41	0.45
4:f:446:ASN:C	4:f:446:ASN:OD1	2.58	0.45
4:i:4:VAL:HB	4:i:7:THR:CG2	2.46	0.45
4:j:193:ASP:OD1	4:j:193:ASP:N	2.43	0.45
4:l:197:ALA:HB1	4:l:280:LYS:HE3	1.98	0.45
4:o:493:LEU:O	4:o:495:ARG:NH1	2.49	0.45
1:x:119:TYR:CD2	1:x:130:GLN:O	2.70	0.45
1:y:311:VAL:O	1:y:311:VAL:HG23	2.15	0.45
1:1:298:GLY:N	1:1:356:LEU:HD12	2.31	0.45
1:2:106:ARG:O	1:2:138:THR:HA	2.16	0.45
1:9:144:MET:HE2	1:9:284:TYR:CE2	2.51	0.45
1:9:233:ASN:OD1	1:9:235:ASN:N	2.50	0.45
1:9:277:VAL:O	1:9:277:VAL:CG2	2.62	0.45
2:A:323:LYS:HD3	2:A:324:GLY:O	2.16	0.45
2:A:346:VAL:HG12	2:A:404:THR:CG2	2.47	0.45
2:B:509:GLN:HE21	2:C:94:LYS:HD3	1.81	0.45
2:F:9:MET:SD	2:F:9:MET:C	3.00	0.45
2:G:40:ILE:HG22	2:G:41:LEU:N	2.31	0.45
2:H:458:ALA:CA	2:H:461:ASP:OD2	2.57	0.45
2:H:549:LEU:O	2:H:549:LEU:HD22	2.15	0.45
2:I:258:VAL:HG22	2:I:259:ALA:N	2.31	0.45
2:I:497:THR:O	2:I:501:ASN:OD1	2.34	0.45
2:J:484:ASP:C	2:J:484:ASP:OD1	2.59	0.45
2:K:74:GLN:CD	2:K:74:GLN:N	2.74	0.45
2:K:76:ARG:HB3	2:K:210:ASN:ND2	2.32	0.45
3:L:240:LEU:HD13	3:L:244:LEU:HG	1.97	0.45
3:M:23:TRP:NE1	3:M:290:TYR:CD2	2.84	0.45
3:Q:283:TRP:O	3:Q:286:VAL:HG13	2.16	0.45
3:U:72:LYS:NZ	3:U:129:ASP:OD2	2.50	0.45
4:a:102:SER:O	4:a:102:SER:OG	2.35	0.45
4:h:170:LEU:HD22	4:h:173:LEU:HD22	1.98	0.45
4:h:296:LEU:HD11	4:h:345:ILE:CD1	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:i:291:GLU:OE2	4:i:291:GLU:N	2.42	0.45
4:j:280:LYS:N	4:j:280:LYS:CE	2.79	0.45
4:l:406:GLU:O	4:l:411:LYS:NZ	2.49	0.45
4:n:221:LEU:CD2	4:n:232:ALA:HB2	2.47	0.45
1:x:379:GLN:C	1:x:379:GLN:OE1	2.59	0.45
1:z:207:GLU:OE2	1:z:207:GLU:N	2.50	0.45
1:7:230:LEU:HD21	1:7:238:LEU:CD1	2.46	0.45
1:9:157:ASN:HA	1:9:267:MET:O	2.16	0.45
1:9:194:HIS:HA	1:9:216:SER:HB2	1.97	0.45
2:A:100:ALA:HA	3:O:39:PRO:HD3	1.98	0.45
2:A:323:LYS:C	2:A:323:LYS:CD	2.90	0.45
2:C:532:TYR:O	2:C:532:TYR:HD1	1.99	0.45
2:D:4:LEU:HD22	2:D:4:LEU:H	1.81	0.45
2:H:149:GLN:C	2:H:149:GLN:CD	2.84	0.45
2:I:199:LEU:O	2:I:203:ASP:OD2	2.34	0.45
2:K:151:LEU:HD23	2:K:295:ARG:HG3	1.99	0.45
3:M:240:LEU:O	3:M:243:VAL:HG22	2.17	0.45
3:O:26:LEU:HD11	3:O:290:TYR:N	2.32	0.45
3:O:70:THR:CG2	3:O:257:LEU:HD22	2.46	0.45
3:Q:219:ASN:O	3:Q:220:VAL:HB	2.17	0.45
3:R:310:MET:SD	3:R:310:MET:O	2.75	0.45
3:T:4:SER:O	3:T:7:MET:HG2	2.17	0.45
4:e:157:ASP:OD1	4:e:157:ASP:C	2.60	0.45
4:f:200:ASN:OD1	4:f:217:ILE:CD1	2.64	0.45
4:g:223:PHE:CD2	4:g:277:GLU:CD	2.95	0.45
4:g:406:GLU:OE1	4:g:406:GLU:HA	2.16	0.45
4:i:29:ILE:HD13	4:i:466:MET:CE	2.44	0.45
4:k:416:LEU:O	4:k:419:VAL:HG12	2.17	0.45
4:k:489:ASN:N	4:k:489:ASN:OD1	2.48	0.45
4:l:490:VAL:O	4:l:494:LEU:HD23	2.16	0.45
4:m:195:THR:O	4:m:281:ASN:ND2	2.50	0.45
4:o:480:LEU:HD11	4:o:484:ASN:ND2	2.32	0.45
1:x:60:ASP:O	1:x:365:ASN:ND2	2.47	0.45
1:1:42:MET:O	1:1:42:MET:HG3	2.16	0.45
1:1:265:ASN:O	1:1:267:MET:HE1	2.17	0.45
1:2:187:TYR:CD2	1:2:285:LYS:HD2	2.50	0.45
1:3:234:GLU:OE1	2:C:344:LYS:HA	2.17	0.45
1:7:74:ASP:HB2	1:7:361:LEU:HD11	1.99	0.45
1:8:20:ILE:HD11	1:8:374:ASN:HB3	1.98	0.45
2:A:441:LYS:HE3	2:A:449:GLY:HA2	1.98	0.45
2:B:70:PHE:HD1	2:B:71:ILE:N	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:183:ILE:HG12	2:B:198:LEU:HD22	1.99	0.45
2:B:467:VAL:CG1	2:B:468:VAL:N	2.79	0.45
2:C:205:LEU:N	2:C:205:LEU:CD2	2.79	0.45
2:D:245:ALA:O	2:D:259:ALA:N	2.50	0.45
2:D:467:VAL:HG23	2:D:468:VAL:N	2.31	0.45
2:E:231:ASN:OD1	2:E:233:TYR:CB	2.65	0.45
2:E:471:ASN:OD1	2:E:471:ASN:N	2.49	0.45
2:F:118:GLN:OE1	2:F:118:GLN:O	2.34	0.45
2:H:358:VAL:CA	2:H:359:GLN:OE1	2.64	0.45
2:I:76:ARG:NH1	2:I:207:SER:OG	2.42	0.45
2:I:235:LEU:HD21	2:I:242:ARG:HB2	1.98	0.45
2:K:54:ILE:CG1	2:K:55:GLY:N	2.79	0.45
3:L:304:PHE:CD1	3:L:304:PHE:C	2.95	0.45
3:M:52:LEU:CG	3:M:274:GLN:NE2	2.80	0.45
3:S:44:ILE:H	3:S:44:ILE:HD12	1.82	0.45
3:S:111:ALA:HB2	3:S:211:LEU:HB3	1.98	0.45
3:S:158:LYS:HD2	3:S:159:SER:O	2.17	0.45
4:e:172:THR:O	4:e:172:THR:OG1	2.26	0.45
4:h:346:ASN:OD1	4:h:346:ASN:N	2.48	0.45
4:i:425:ASP:O	4:i:429:VAL:HG23	2.17	0.45
4:j:436:ALA:O	4:j:440:LEU:HD23	2.16	0.45
4:m:61:LEU:HD12	4:m:440:LEU:HD22	1.98	0.45
4:m:254:ASN:OD1	4:m:255:GLY:N	2.49	0.45
1:w:83:PHE:O	1:w:94:TYR:HA	2.17	0.45
1:x:327:ALA:HB2	1:x:337:THR:CG2	2.45	0.45
1:x:371:GLU:N	1:x:371:GLU:CD	2.75	0.45
1:y:310:GLN:CD	1:y:310:GLN:C	2.84	0.45
1:1:36:THR:O	1:1:58:THR:N	2.35	0.45
1:6:328:SER:O	1:8:43:PHE:HB3	2.17	0.45
1:7:79:GLN:CD	1:7:79:GLN:N	2.74	0.45
1:9:233:ASN:ND2	1:9:239:GLU:OE2	2.50	0.45
2:A:333:PRO:HD3	2:A:352:VAL:HG23	1.99	0.45
2:B:395:ILE:O	2:B:396:ASP:C	2.60	0.45
2:C:518:LEU:HD22	2:C:518:LEU:N	2.31	0.45
2:D:480:THR:O	2:D:484:ASP:OD1	2.35	0.45
2:E:2:SER:CB	2:E:5:ILE:HB	2.47	0.45
2:E:79:GLN:O	2:E:82:SER:OG	2.33	0.45
2:F:495:SER:O	2:F:499:GLN:HG2	2.16	0.45
2:G:99:LEU:CD1	2:G:485:VAL:HG11	2.46	0.45
2:G:539:LEU:O	2:G:542:ALA:HB3	2.17	0.45
2:H:155:ASP:O	2:H:159:ASN:ND2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:310:ASN:HB3	2:H:326:ASP:OD1	2.17	0.45
2:J:487:ASN:HD21	2:K:135:GLY:HA3	1.80	0.45
3:L:13:MET:SD	3:L:304:PHE:CZ	3.10	0.45
3:N:198:LYS:O	3:N:198:LYS:HG3	2.16	0.45
3:N:310:MET:HE2	3:O:297:LEU:HD22	1.98	0.45
3:Q:207:ALA:HB2	3:Q:232:THR:HG21	1.99	0.45
3:Q:282:ASP:O	3:Q:283:TRP:HB2	2.17	0.45
3:R:106:ASP:OD1	4:g:53:ARG:NH2	2.43	0.45
3:R:219:ASN:O	3:R:220:VAL:HB	2.17	0.45
3:V:30:MET:HE1	3:V:283:TRP:CZ3	2.52	0.45
4:d:189:THR:O	4:d:286:ASN:ND2	2.46	0.45
4:f:84:GLU:OE1	4:f:84:GLU:HA	2.16	0.45
4:f:485:GLN:HA	4:f:488:GLN:HB2	1.98	0.45
4:i:4:VAL:CB	4:i:9:SER:HB2	2.46	0.45
4:j:32:LEU:HD12	4:j:459:TYR:CD1	2.52	0.45
1:w:41:ASP:OD1	1:w:41:ASP:N	2.46	0.45
1:x:17:LEU:O	1:x:20:ILE:HG22	2.16	0.45
1:z:167:LYS:O	1:z:168:THR:C	2.59	0.45
1:3:233:ASN:OD1	1:3:237:ILE:N	2.36	0.45
1:4:289:LEU:HD12	1:4:303:ASN:C	2.41	0.45
1:5:51:GLY:C	1:5:53:LYS:N	2.71	0.45
1:5:205:ASP:OD1	1:5:205:ASP:O	2.35	0.45
1:5:368:LEU:H	1:5:368:LEU:HD12	1.82	0.45
1:6:75:VAL:HG12	1:6:356:LEU:HD12	1.98	0.45
1:6:103:ASP:C	1:6:103:ASP:OD1	2.60	0.45
1:7:250:THR:O	1:7:250:THR:HG22	2.15	0.45
1:7:304:TYR:OH	1:7:312:LEU:HD21	2.16	0.45
1:9:164:VAL:HG12	1:9:203:THR:HB	1.99	0.45
2:A:35:THR:OG1	2:A:200:ASP:OD2	2.13	0.45
2:B:329:SER:N	2:B:425:ASN:O	2.32	0.45
2:B:428:VAL:HG23	2:B:433:GLU:HB2	1.98	0.45
2:B:545:LEU:HD12	2:C:532:TYR:CD2	2.52	0.45
2:D:300:GLN:HA	2:D:417:VAL:HG11	1.99	0.45
2:F:81:GLN:OE1	2:F:82:SER:N	2.50	0.45
2:F:473:THR:O	2:F:476:ASP:OD1	2.35	0.45
2:G:209:LEU:HD13	2:G:209:LEU:C	2.42	0.45
2:J:9:MET:HA	2:J:9:MET:HE3	1.99	0.45
2:J:298:LEU:O	2:J:298:LEU:HD13	2.16	0.45
2:K:252:ASP:OD1	2:K:254:THR:OG1	2.34	0.45
3:L:148:GLN:H	3:L:148:GLN:CD	2.25	0.45
3:O:53:SER:O	3:O:56:GLN:OE1	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:200:LEU:O	3:O:203:MET:HG2	2.16	0.45
3:O:234:ARG:HE	3:O:238:ASN:ND2	2.15	0.45
3:Q:240:LEU:O	3:Q:243:VAL:HG12	2.17	0.45
4:c:326:VAL:N	4:c:333:TYR:O	2.50	0.45
4:d:383:ALA:HA	4:d:386:ALA:HB3	1.98	0.45
4:h:80:GLY:O	4:h:84:GLU:OE1	2.34	0.45
4:h:406:GLU:OE2	4:h:411:LYS:HE2	2.17	0.45
4:i:224:ASP:OD1	4:i:226:THR:N	2.40	0.45
4:l:316:ASN:OD1	4:l:316:ASN:N	2.49	0.45
4:l:480:LEU:O	4:l:484:ASN:OD1	2.33	0.45
4:n:61:LEU:HD22	4:n:61:LEU:H	1.82	0.45
4:n:249:SER:N	4:n:258:THR:O	2.42	0.45
1:z:158:LEU:HD12	1:z:158:LEU:N	2.31	0.45
1:1:202:LYS:CE	1:1:205:ASP:OD1	2.65	0.45
1:5:65:THR:HB	2:K:6:ASN:ND2	2.32	0.45
1:7:24:ILE:HD13	2:I:538:VAL:CG2	2.46	0.45
1:7:329:GLN:OE1	2:I:49:GLY:C	2.60	0.45
1:7:357:THR:HG21	2:J:45:ASN:HD21	1.82	0.45
1:8:75:VAL:HA	1:8:357:THR:O	2.17	0.45
2:B:75:LEU:HD13	2:B:79:GLN:HE21	1.82	0.45
2:E:273:LYS:O	2:E:273:LYS:NZ	2.40	0.45
2:F:135:GLY:HA3	3:S:252:THR:HG21	1.98	0.45
2:F:178:ASN:O	2:F:182:GLN:HG2	2.17	0.45
2:F:441:LYS:O	2:F:441:LYS:HG2	2.17	0.45
2:G:542:ALA:O	2:G:546:PHE:CE2	2.69	0.45
2:H:74:GLN:OE1	2:H:506:LEU:HD12	2.17	0.45
2:H:484:ASP:C	2:H:484:ASP:OD1	2.59	0.45
2:J:361:THR:HG21	2:J:376:ARG:HB3	1.99	0.45
2:K:19:LEU:HD22	2:K:525:LEU:CD1	2.47	0.45
2:K:200:ASP:C	2:K:200:ASP:OD1	2.60	0.45
2:K:231:ASN:OD1	2:K:231:ASN:C	2.60	0.45
3:M:203:MET:CE	3:M:235:GLY:HA3	2.47	0.45
3:O:82:GLN:OE1	3:O:85:THR:HB	2.17	0.45
3:O:175:THR:N	3:O:178:GLN:OE1	2.37	0.45
3:O:251:GLY:CA	4:c:42:LYS:HB2	2.47	0.45
3:O:281:VAL:HG21	3:O:286:VAL:HG11	1.99	0.45
3:P:280:ASP:HB3	4:e:2:ALA:HA	1.99	0.45
3:Q:292:MET:SD	3:R:9:TYR:CD2	3.10	0.45
3:S:116:GLY:O	3:S:119:ASP:OD1	2.35	0.45
3:T:4:SER:HB2	3:T:7:MET:HE2	1.99	0.45
3:V:126:ASN:O	3:V:134:TYR:HD1	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:V:258:SER:O	3:V:261:ASP:OD1	2.35	0.45
4:b:218:ASP:N	4:b:233:LYS:O	2.42	0.45
4:d:16:ASN:OD1	4:d:16:ASN:N	2.50	0.45
4:f:399:GLU:N	4:f:399:GLU:CD	2.75	0.45
4:g:10:LEU:HD11	4:h:29:ILE:CG2	2.47	0.45
4:n:7:THR:HG23	4:n:7:THR:O	2.17	0.45
4:n:38:ILE:HG23	4:n:43:ASP:HB2	1.99	0.45
4:n:225:ASP:OD1	4:n:225:ASP:C	2.59	0.45
1:x:329:GLN:C	1:y:43:PHE:O	2.59	0.45
1:y:380:ARG:HD2	1:y:380:ARG:HA	1.75	0.45
1:1:379:GLN:OE1	2:C:541:THR:HG22	2.17	0.44
1:3:63:ASP:HA	2:B:50:ALA:H	1.81	0.44
1:3:71:ARG:CZ	1:3:74:ASP:OD1	2.64	0.44
1:6:110:ASN:C	1:6:111:MET:HE2	2.42	0.44
1:7:6:ALA:HB1	1:7:389:ILE:CG1	2.46	0.44
1:8:207:GLU:HG2	1:8:231:LYS:HA	1.99	0.44
2:A:474:PHE:O	2:A:477:ALA:HB3	2.17	0.44
2:B:5:ILE:HD12	2:B:6:ASN:H	1.81	0.44
2:B:116:SER:HA	2:B:119:THR:HG22	1.99	0.44
2:B:150:TYR:CZ	2:B:154:GLN:CD	2.95	0.44
2:C:482:VAL:O	2:C:485:VAL:HG12	2.16	0.44
2:D:395:ILE:O	2:D:397:GLY:N	2.50	0.44
2:D:510:GLN:C	2:D:510:GLN:OE1	2.60	0.44
2:E:509:GLN:OE1	2:E:509:GLN:N	2.50	0.44
2:E:537:GLN:OE1	2:E:540:GLN:NE2	2.50	0.44
2:G:303:LEU:O	2:G:304:ALA:C	2.59	0.44
2:G:512:SER:O	3:U:1:MET:HE1	2.16	0.44
2:H:169:ILE:HD11	2:H:212:ILE:HG21	1.99	0.44
2:J:45:ASN:OD1	2:J:45:ASN:C	2.61	0.44
3:L:109:SER:O	3:L:112:THR:OG1	2.24	0.44
3:M:312:LEU:HD13	3:M:312:LEU:C	2.43	0.44
3:R:297:LEU:HD23	3:R:297:LEU:C	2.42	0.44
3:T:287:ILE:HD11	4:k:494:LEU:HD23	1.99	0.44
3:U:271:GLN:OE1	3:U:272:LYS:HD2	2.17	0.44
4:c:38:ILE:HD11	4:c:454:ILE:O	2.17	0.44
4:c:321:ASP:OD1	4:c:321:ASP:N	2.49	0.44
4:c:352:ALA:HB3	4:c:358:LYS:CG	2.47	0.44
4:d:58:ILE:HD11	4:d:447:LEU:HB2	1.99	0.44
4:i:8:ASN:C	4:i:10:LEU:N	2.74	0.44
4:i:222:LYS:CD	4:i:222:LYS:N	2.80	0.44
4:k:428:ALA:HB1	4:l:118:GLN:HG3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:w:30:TYR:CE1	1:w:363:ALA:HA	2.52	0.44
1:y:137:ILE:HG22	1:y:138:THR:N	2.32	0.44
1:z:40:ALA:HB3	1:z:53:LYS:HG3	1.99	0.44
1:z:158:LEU:HD23	1:z:208:TRP:CZ3	2.52	0.44
1:z:194:HIS:N	1:z:194:HIS:CD2	2.85	0.44
1:1:17:LEU:O	2:C:4:LEU:CD2	2.65	0.44
1:1:116:LEU:C	1:1:116:LEU:HD13	2.43	0.44
1:9:116:LEU:HD21	1:9:315:ILE:HG21	1.98	0.44
2:A:351:LYS:N	2:A:399:LYS:O	2.49	0.44
2:A:480:THR:O	2:A:484:ASP:OD2	2.36	0.44
2:B:130:ARG:HE	2:B:436:MET:HE2	1.82	0.44
2:B:298:LEU:HD22	2:B:421:ILE:CD1	2.47	0.44
2:B:329:SER:O	2:B:424:MET:HA	2.16	0.44
2:B:476:ASP:OD1	2:B:476:ASP:N	2.50	0.44
2:E:2:SER:HB3	2:E:5:ILE:HB	1.99	0.44
2:F:318:ASP:HA	2:F:435:ALA:HA	1.99	0.44
2:I:15:ALA:CB	2:I:532:TYR:HD1	2.30	0.44
2:I:209:LEU:HD23	2:I:209:LEU:C	2.43	0.44
2:I:505:GLN:NE2	2:J:197:ASP:OD1	2.51	0.44
2:J:551:ASN:O	2:J:551:ASN:OD1	2.35	0.44
2:K:309:PHE:CE1	2:K:459:LEU:HD13	2.52	0.44
3:N:195:ASP:OD1	3:N:196:SER:N	2.50	0.44
3:O:29:GLN:OE1	3:O:34:LYS:O	2.35	0.44
3:Q:140:LYS:O	3:Q:140:LYS:HG2	2.16	0.44
3:Q:273:LEU:HD13	4:f:5:ILE:CG2	2.47	0.44
3:T:76:GLU:OE1	3:T:250:LEU:HD21	2.16	0.44
4:a:251:ASP:OD1	4:a:252:LYS:N	2.50	0.44
4:d:157:ASP:OD1	4:d:157:ASP:C	2.59	0.44
4:e:229:LYS:HA	4:e:229:LYS:HE3	2.00	0.44
4:f:244:GLY:HA3	4:f:266:PRO:HB3	1.99	0.44
4:f:251:ASP:HB3	4:f:254:ASN:OD1	2.17	0.44
4:g:44:ASP:C	4:g:44:ASP:OD1	2.59	0.44
4:g:180:LYS:NZ	4:g:182:SER:OG	2.43	0.44
4:i:249:SER:N	4:i:258:THR:O	2.44	0.44
4:k:37:ARG:N	4:k:455:GLU:O	2.49	0.44
1:w:1:MET:CG	1:w:2:SER:H	2.30	0.44
1:w:320:PHE:CD2	1:w:326:LEU:CD2	2.92	0.44
1:x:298:GLY:HA3	1:x:315:ILE:HG22	2.00	0.44
1:z:95:SER:OG	1:z:332:ASN:OD1	2.15	0.44
1:1:201:VAL:N	1:1:209:ALA:O	2.50	0.44
1:1:395:ILE:HG22	1:z:382:TYR:CE1	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:3:375:MET:HE2	2:A:541:THR:OG1	2.17	0.44
1:4:281:GLN:NE2	1:4:283:GLY:O	2.48	0.44
1:5:3:PHE:CE2	1:6:380:ARG:NE	2.86	0.44
1:5:30:TYR:HD2	1:5:361:LEU:HB3	1.82	0.44
1:5:33:LYS:HB3	1:5:60:ASP:O	2.16	0.44
1:6:144:MET:SD	1:6:310:GLN:HG3	2.57	0.44
1:7:53:LYS:HZ1	1:7:55:ALA:CB	2.28	0.44
1:7:99:GLN:O	1:7:111:MET:HE3	2.17	0.44
1:8:203:THR:HG22	1:8:203:THR:O	2.16	0.44
2:B:293:GLN:NE2	2:B:297:THR:OG1	2.49	0.44
2:B:467:VAL:HG13	2:B:468:VAL:N	2.31	0.44
2:D:307:ASP:CG	2:D:308:ALA:N	2.73	0.44
2:E:345:THR:O	2:E:346:VAL:C	2.60	0.44
2:G:40:ILE:HD11	2:G:64:GLN:HG2	2.00	0.44
2:H:35:THR:HG21	2:H:65:ARG:HB2	2.00	0.44
2:K:336:TYR:N	2:K:413:LEU:O	2.40	0.44
3:M:304:PHE:O	3:M:307:MET:HG3	2.16	0.44
3:O:7:MET:SD	3:O:8:MET:CE	3.06	0.44
3:O:264:GLY:O	3:O:267:ARG:HG2	2.18	0.44
3:P:20:GLN:NE2	3:P:301:TYR:CZ	2.85	0.44
3:P:35:ARG:HG2	3:P:281:VAL:HB	1.98	0.44
3:Q:120:GLN:OE1	3:Q:120:GLN:HA	2.16	0.44
3:S:157:GLU:N	3:S:157:GLU:OE2	2.51	0.44
3:T:219:ASN:O	3:T:220:VAL:HB	2.18	0.44
4:b:4:VAL:O	4:b:8:ASN:CB	2.66	0.44
4:d:333:TYR:CE2	4:d:361:LEU:HD11	2.52	0.44
4:i:310:MET:HE3	4:i:325:ALA:HB3	1.99	0.44
4:i:353:ASP:OD1	4:i:354:ASP:N	2.45	0.44
4:j:494:LEU:C	4:j:494:LEU:HD13	2.42	0.44
4:k:368:ASP:OD1	4:k:371:THR:OG1	2.35	0.44
4:l:493:LEU:O	4:l:494:LEU:C	2.59	0.44
4:m:351:THR:HB	4:m:390:ASN:HA	1.99	0.44
1:w:75:VAL:CG2	1:w:294:ILE:HD13	2.48	0.44
1:w:168:THR:N	1:w:169:PRO:CD	2.81	0.44
1:w:374:ASN:C	1:w:377:VAL:HG12	2.42	0.44
1:w:374:ASN:O	1:w:377:VAL:HG13	2.17	0.44
1:x:328:SER:HB3	1:y:47:LYS:CD	2.46	0.44
1:3:38:SER:HB3	1:3:56:GLY:HA3	1.98	0.44
1:3:265:ASN:HA	1:3:267:MET:HE3	1.99	0.44
1:3:290:VAL:HB	2:A:70:PHE:CD2	2.53	0.44
1:4:17:LEU:O	1:4:18:ASP:C	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:200:PHE:CD2	1:4:210:VAL:HG22	2.53	0.44
1:4:210:VAL:HG21	1:4:230:LEU:CD1	2.47	0.44
1:9:231:LYS:O	1:9:238:LEU:HD12	2.18	0.44
2:B:63:VAL:HG12	2:B:64:GLN:N	2.33	0.44
2:B:70:PHE:CD1	2:B:71:ILE:N	2.85	0.44
2:B:217:VAL:HG22	2:B:227:LEU:HG	1.99	0.44
2:B:525:LEU:C	2:B:525:LEU:HD12	2.41	0.44
2:C:9:MET:SD	2:C:13:ASN:ND2	2.90	0.44
2:D:481:LEU:HA	2:D:484:ASP:OD1	2.18	0.44
2:E:303:LEU:HD13	2:E:355:SER:HB2	1.99	0.44
2:F:45:ASN:ND2	2:F:54:ILE:O	2.48	0.44
2:F:401:THR:HG22	2:F:402:VAL:N	2.32	0.44
2:F:452:ASP:OD1	3:T:139:TYR:OH	2.22	0.44
2:G:157:GLN:OE1	2:G:157:GLN:HA	2.18	0.44
2:G:330:ILE:CD1	2:G:420:ALA:HB1	2.48	0.44
2:G:540:GLN:NE2	2:G:541:THR:N	2.66	0.44
2:H:237:GLN:NE2	1:w:183:THR:OG1	2.50	0.44
2:H:463:GLN:HA	2:H:474:PHE:CE1	2.52	0.44
2:H:519:ASP:N	2:H:519:ASP:OD1	2.49	0.44
2:J:197:ASP:O	2:J:200:ASP:OD1	2.35	0.44
2:J:278:GLY:O	2:J:282:GLY:HA3	2.18	0.44
2:J:361:THR:HG23	2:J:378:ALA:H	1.82	0.44
3:M:229:ILE:O	3:M:232:THR:OG1	2.29	0.44
3:O:54:GLN:CD	3:O:55:ALA:N	2.75	0.44
3:P:20:GLN:O	3:P:24:MET:SD	2.75	0.44
3:R:287:ILE:HG21	4:h:494:LEU:CD2	2.47	0.44
3:V:289:SER:CA	3:V:293:GLN:HE22	2.30	0.44
3:V:297:LEU:CD2	3:V:301:TYR:CE2	2.99	0.44
4:g:248:VAL:HG12	4:g:259:LEU:HD12	2.00	0.44
4:j:203:PHE:O	4:j:207:ALA:N	2.48	0.44
4:j:364:LEU:HA	4:j:371:THR:O	2.18	0.44
4:j:409:LEU:O	4:j:413:ASP:OD2	2.36	0.44
4:k:182:SER:O	4:k:310:MET:SD	2.76	0.44
4:l:61:LEU:HD22	4:l:150:ALA:HB2	1.99	0.44
4:l:310:MET:HE2	4:l:332:TYR:CE2	2.52	0.44
4:m:44:ASP:C	4:m:44:ASP:OD1	2.60	0.44
4:m:385:LYS:HA	4:m:385:LYS:HE3	1.98	0.44
4:n:18:LEU:HD12	4:n:473:GLN:OE1	2.17	0.44
1:x:289:LEU:CD1	1:x:304:TYR:CD1	2.93	0.44
1:y:19:VAL:O	1:y:23:ASN:CG	2.60	0.44
1:z:265:ASN:O	1:z:267:MET:SD	2.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:z:338:GLN:OE1	1:z:338:GLN:O	2.36	0.44
1:2:30:TYR:CD2	1:2:361:LEU:HD13	2.52	0.44
1:2:171:SER:HB3	1:2:174:ASP:HB2	1.99	0.44
1:3:63:ASP:HB2	2:B:48:LEU:CA	2.48	0.44
1:3:74:ASP:OD1	1:3:74:ASP:N	2.47	0.44
1:3:109:VAL:HA	1:3:114:MET:O	2.18	0.44
1:5:392:GLN:HA	1:5:395:ILE:HG13	1.99	0.44
1:6:174:ASP:OD2	1:6:177:SER:OG	2.29	0.44
1:8:232:PHE:CE2	1:8:238:LEU:HG	2.51	0.44
2:C:186:MET:HG3	2:C:198:LEU:HD11	1.98	0.44
2:D:545:LEU:O	2:D:548:ALA:HB3	2.18	0.44
2:E:44:ALA:C	2:E:45:ASN:OD1	2.60	0.44
2:E:226:ASN:OD1	2:E:226:ASN:O	2.35	0.44
2:G:543:ASN:O	1:y:380:ARG:NH2	2.50	0.44
2:I:250:SER:HB2	2:I:339:SER:HB3	2.00	0.44
2:J:372:TRP:CH2	2:J:402:VAL:CG1	3.00	0.44
2:J:547:ASP:C	2:J:547:ASP:OD1	2.60	0.44
3:L:28:GLU:OE1	3:L:29:GLN:N	2.51	0.44
3:L:120:GLN:NE2	3:L:120:GLN:HA	2.31	0.44
3:M:258:SER:O	3:M:261:ASP:OD1	2.36	0.44
3:N:13:MET:O	3:N:16:ILE:HG13	2.18	0.44
3:O:269:LEU:HD12	4:c:16:ASN:ND2	2.32	0.44
3:P:275:MET:O	3:P:279:VAL:HG22	2.17	0.44
3:S:157:GLU:N	3:S:157:GLU:CD	2.76	0.44
3:T:314:GLN:HG2	3:U:301:TYR:CZ	2.53	0.44
3:U:34:LYS:HE2	3:U:279:VAL:CG1	2.48	0.44
3:V:287:ILE:O	3:V:290:TYR:HD1	2.00	0.44
4:b:472:LEU:HD23	4:b:472:LEU:O	2.16	0.44
4:c:456:ASP:HB3	4:d:4:VAL:HG23	1.98	0.44
4:e:253:THR:OG1	4:e:254:ASN:N	2.51	0.44
4:f:7:THR:HG22	4:f:487:PRO:HG3	2.00	0.44
4:m:20:LYS:HE3	4:m:20:LYS:HB2	1.89	0.44
4:m:32:LEU:CD2	4:m:459:TYR:CE1	3.00	0.44
1:w:175:ALA:HA	1:w:178:TYR:CE2	2.52	0.44
1:w:320:PHE:CE2	1:w:326:LEU:CD2	3.00	0.44
1:x:22:ASN:CG	1:y:43:PHE:CZ	2.95	0.44
1:z:103:ASP:OD1	1:z:107:ASN:N	2.42	0.44
1:5:382:TYR:HD2	1:7:395:ILE:HG13	1.81	0.44
1:5:389:ILE:O	1:5:393:ASP:OD1	2.35	0.44
1:7:197:ASN:O	1:7:213:HIS:N	2.51	0.44
1:8:187:TYR:CE1	1:8:284:TYR:HA	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:9:207:GLU:HG2	1:9:231:LYS:HA	2.00	0.44
2:B:150:TYR:OH	2:B:154:GLN:CD	2.61	0.44
2:E:120:LEU:HD23	2:E:129:ALA:CB	2.48	0.44
2:E:545:LEU:CD2	1:y:379:GLN:NE2	2.81	0.44
2:H:71:ILE:CD1	2:H:75:LEU:HD12	2.48	0.44
2:H:243:GLN:OE1	2:H:243:GLN:HA	2.17	0.44
2:I:100:ALA:CB	3:L:38:ASN:HB3	2.47	0.44
2:K:106:LEU:H	2:K:106:LEU:HD22	1.81	0.44
2:K:260:TYR:CE2	2:K:270:ILE:HB	2.53	0.44
2:K:401:THR:HG22	2:K:402:VAL:O	2.17	0.44
3:N:310:MET:C	3:N:310:MET:SD	3.01	0.44
3:N:310:MET:SD	3:N:314:GLN:CD	3.00	0.44
3:O:82:GLN:HG3	3:O:124:LEU:HD11	1.99	0.44
3:P:301:TYR:CD1	4:c:493:LEU:HD12	2.52	0.44
3:Q:7:MET:SD	3:Q:8:MET:CE	3.06	0.44
3:Q:168:ARG:HG2	3:Q:170:MET:CE	2.47	0.44
3:Q:258:SER:O	3:Q:261:ASP:OD1	2.36	0.44
3:Q:282:ASP:OD1	4:f:3:GLN:N	2.47	0.44
3:S:23:TRP:CE3	3:S:23:TRP:C	2.96	0.44
3:T:23:TRP:NE1	3:T:290:TYR:CE1	2.86	0.44
3:T:257:LEU:O	3:T:261:ASP:OD1	2.35	0.44
3:V:26:LEU:HD21	3:V:289:SER:HB3	1.99	0.44
3:V:68:PHE:C	3:V:71:GLN:OE1	2.60	0.44
3:V:106:ASP:OD1	3:V:106:ASP:N	2.50	0.44
4:d:204:LYS:NZ	4:d:214:ASP:OD1	2.39	0.44
4:e:170:LEU:HD12	4:e:170:LEU:N	2.33	0.44
4:j:32:LEU:CD1	4:j:459:TYR:CD1	3.00	0.44
4:k:141:ASP:OD1	4:k:162:GLN:N	2.35	0.44
1:1:370:LYS:O	1:1:373:VAL:HG22	2.18	0.44
1:3:18:ASP:OD2	2:A:1:MET:N	2.51	0.44
1:3:289:LEU:HB2	1:3:304:TYR:CE2	2.52	0.44
1:5:85:LEU:HD13	1:5:114:MET:HB3	1.98	0.44
1:6:100:PHE:HA	1:6:111:MET:HE3	1.99	0.44
1:8:147:LYS:HE3	1:8:147:LYS:HA	2.00	0.44
2:A:75:LEU:O	2:A:79:GLN:HB3	2.18	0.44
2:A:299:GLY:CA	2:A:421:ILE:HD11	2.48	0.44
2:A:362:ASP:O	2:A:377:THR:OG1	2.36	0.44
2:B:301:LEU:CD1	2:B:468:VAL:HG21	2.48	0.44
2:B:508:LYS:NZ	2:B:509:GLN:OE1	2.48	0.44
2:C:460:LEU:O	2:C:463:GLN:HB3	2.17	0.44
2:E:289:GLN:C	2:E:289:GLN:CD	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:71:ILE:HG13	2:F:506:LEU:HD21	1.99	0.44
2:F:208:GLU:O	2:F:212:ILE:HD12	2.17	0.44
2:G:30:ASN:O	2:G:30:ASN:OD1	2.36	0.44
2:G:287:ARG:HA	2:G:291:LEU:HB3	1.99	0.44
2:H:20:ASN:HB2	3:U:8:MET:CE	2.48	0.44
2:H:189:VAL:O	2:H:189:VAL:HG22	2.18	0.44
2:H:244:LEU:HD13	2:H:260:TYR:HA	2.00	0.44
2:H:301:LEU:HD12	2:H:301:LEU:O	2.18	0.44
2:H:487:ASN:O	2:H:491:THR:HG22	2.18	0.44
2:H:518:LEU:CA	2:H:521:GLU:OE2	2.66	0.44
2:I:45:ASN:OD1	2:I:46:SER:N	2.42	0.44
2:I:229:MET:HE2	2:I:233:TYR:O	2.17	0.44
2:J:124:ALA:HA	2:J:436:MET:SD	2.58	0.44
2:J:407:GLN:HG2	2:J:408:LYS:H	1.82	0.44
2:J:510:GLN:OE1	2:J:511:GLN:N	2.50	0.44
2:K:204:GLN:OE1	2:K:204:GLN:HA	2.17	0.44
2:K:435:ALA:O	2:K:455:ASN:OD1	2.35	0.44
3:L:23:TRP:CZ2	3:L:290:TYR:HE1	2.36	0.44
3:M:83:VAL:O	3:M:87:ILE:HG12	2.17	0.44
3:O:271:GLN:HA	3:O:274:GLN:OE1	2.18	0.44
3:P:33:GLY:HA2	4:e:3:GLN:CG	2.47	0.44
3:R:164:VAL:HG21	3:R:170:MET:HE2	1.99	0.44
3:U:225:ALA:O	3:U:229:ILE:HG23	2.17	0.44
3:V:208:ILE:HG13	3:V:209:ALA:N	2.32	0.44
4:a:293:LYS:O	4:a:297:THR:OG1	2.30	0.44
4:a:422:LEU:HA	4:a:425:ASP:OD2	2.17	0.44
4:a:490:VAL:HG12	4:b:477:THR:HG21	2.00	0.44
4:b:5:ILE:HA	4:b:8:ASN:HB2	1.98	0.44
4:b:426:LEU:O	4:b:429:VAL:HG22	2.17	0.44
4:e:183:ASP:C	4:e:183:ASP:OD1	2.61	0.44
4:e:475:ALA:O	4:e:479:VAL:HG23	2.17	0.44
4:f:468:ARG:HG2	4:f:472:LEU:HD12	1.98	0.44
4:h:78:THR:HG23	4:h:138:LEU:HD11	2.00	0.44
4:i:254:ASN:OD1	4:i:255:GLY:N	2.51	0.44
4:j:159:ASP:OD1	4:j:159:ASP:O	2.36	0.44
4:k:157:ASP:OD1	4:k:157:ASP:O	2.35	0.44
4:m:345:ILE:O	4:m:347:THR:HG23	2.16	0.44
4:n:125:ARG:NH1	4:n:129:GLN:OE1	2.50	0.44
1:2:117:THR:HA	1:2:136:PRO:HA	1.99	0.44
1:3:178:TYR:HD1	1:3:180:LYS:N	2.15	0.44
1:5:303:ASN:HA	1:5:309:GLU:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:9:309:GLU:OE1	1:9:309:GLU:N	2.51	0.44
2:A:41:LEU:HD13	2:A:60:VAL:HA	1.99	0.44
2:A:476:ASP:HA	2:A:479:ALA:HB3	2.00	0.44
2:B:169:ILE:HG23	2:B:244:LEU:HD13	2.00	0.44
2:B:303:LEU:HD13	2:B:358:VAL:HB	2.00	0.44
2:B:414:LEU:HD12	2:B:415:LYS:N	2.32	0.44
2:C:135:GLY:HA2	2:C:138:GLU:HG2	2.00	0.44
2:C:495:SER:OG	2:D:175:GLN:NE2	2.50	0.44
2:D:371:ASP:OD1	2:D:372:TRP:N	2.51	0.44
2:D:532:TYR:CE2	3:Q:310:MET:HG2	2.53	0.44
2:E:70:PHE:CE1	2:E:71:ILE:HD11	2.52	0.44
2:E:436:MET:HE2	2:E:452:ASP:O	2.18	0.44
2:F:22:VAL:O	2:F:26:ILE:HG22	2.18	0.44
2:G:187:THR:CA	2:G:194:SER:OG	2.66	0.44
2:H:49:GLY:C	1:w:63:ASP:HB2	2.42	0.44
2:H:458:ALA:O	2:H:461:ASP:OD2	2.35	0.44
2:J:357:LYS:O	2:J:357:LYS:HG2	2.18	0.44
2:K:182:GLN:O	2:K:186:MET:HG2	2.17	0.44
2:K:450:ASP:OD1	3:N:141:THR:OG1	2.35	0.44
3:L:28:GLU:O	3:L:32:THR:HG23	2.18	0.44
3:M:65:ALA:CB	3:M:164:VAL:HG11	2.45	0.44
3:O:284:ASN:OD1	3:O:284:ASN:C	2.61	0.44
3:Q:235:GLY:O	3:Q:238:ASN:OD1	2.36	0.44
3:Q:255:SER:HB3	4:f:42:LYS:HG3	2.00	0.44
3:T:9:TYR:HA	3:T:12:ASN:HD21	1.83	0.44
3:T:23:TRP:HE1	3:T:294:GLN:HE21	1.65	0.44
3:U:99:ASN:OD1	3:U:100:GLY:N	2.51	0.44
4:a:194:THR:OG1	4:a:282:VAL:O	2.20	0.44
4:b:105:SER:OG	4:b:108:ASP:OD2	2.36	0.44
4:d:57:ASN:O	4:d:61:LEU:HD12	2.18	0.44
4:i:156:ILE:HG13	4:i:432:ARG:CZ	2.47	0.44
4:i:458:ASP:OD1	4:j:3:GLN:N	2.50	0.44
4:o:187:THR:O	4:o:187:THR:OG1	2.28	0.44
1:w:202:LYS:HB2	1:w:208:TRP:CD2	2.52	0.44
1:x:327:ALA:N	1:x:335:ALA:O	2.51	0.44
1:y:42:MET:HG2	1:y:51:GLY:C	2.42	0.44
1:z:231:LYS:O	1:z:238:LEU:HD12	2.17	0.44
1:5:104:GLU:OE1	1:7:341:GLY:CA	2.66	0.44
1:5:187:TYR:CE2	1:5:285:LYS:HG2	2.53	0.44
1:5:392:GLN:O	1:5:395:ILE:HB	2.18	0.44
1:8:77:ILE:HD13	1:8:96:ARG:HH21	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:9:387:GLN:HA	1:9:390:LYS:HZ3	1.82	0.44
2:A:131:GLN:NE2	2:K:484:ASP:OD1	2.50	0.44
2:C:166:VAL:HG13	2:C:244:LEU:HD12	1.99	0.44
2:C:519:ASP:OD1	2:C:519:ASP:N	2.51	0.44
2:F:340:ASN:O	2:F:341:ASN:ND2	2.50	0.44
2:F:367:PHE:CD2	2:F:407:GLN:C	2.96	0.44
2:F:447:ASP:OD1	2:F:448:THR:N	2.51	0.44
2:H:215:VAL:HG23	2:H:228:THR:O	2.18	0.44
2:H:475:ASN:OD1	2:H:475:ASN:C	2.61	0.44
2:I:15:ALA:HB3	2:I:532:TYR:CD1	2.53	0.44
2:I:210:ASN:OD1	2:I:210:ASN:C	2.60	0.44
2:I:385:ALA:HB1	2:I:393:LEU:HD12	2.00	0.44
2:J:90:GLU:OE2	2:J:94:LYS:NZ	2.46	0.44
2:J:120:LEU:HD13	2:J:436:MET:CE	2.40	0.44
2:J:344:LYS:O	2:J:344:LYS:HD2	2.18	0.44
3:R:92:GLU:OE1	3:R:92:GLU:CA	2.66	0.44
3:T:24:MET:HG2	4:i:10:LEU:HD12	1.99	0.44
3:T:249:GLU:OE2	3:T:253:GLN:CG	2.66	0.44
3:T:261:ASP:OD1	3:T:261:ASP:N	2.43	0.44
3:V:26:LEU:HD21	3:V:289:SER:CB	2.48	0.44
3:V:168:ARG:NE	3:V:256:GLU:OE2	2.43	0.44
3:V:282:ASP:OD1	3:V:283:TRP:N	2.51	0.44
4:b:13:LEU:C	4:b:13:LEU:CD2	2.91	0.44
4:c:183:ASP:OD1	4:c:332:TYR:OH	2.23	0.44
4:c:482:GLN:O	4:c:486:VAL:HG23	2.18	0.44
4:d:312:TYR:O	4:d:319:THR:HG23	2.18	0.44
4:d:416:LEU:O	4:d:420:ASP:OD2	2.35	0.44
4:n:180:LYS:HZ2	4:n:180:LYS:CB	2.31	0.44
4:o:222:LYS:O	4:o:231:TYR:N	2.51	0.44
1:w:88:SER:HA	1:w:114:MET:HE1	1.99	0.44
1:w:103:ASP:OD1	1:w:107:ASN:N	2.50	0.44
1:x:115:GLN:OE1	1:x:115:GLN:N	2.50	0.44
1:1:30:TYR:CE1	1:1:361:LEU:CB	3.01	0.43
1:3:331:ASP:O	1:3:333:VAL:HG13	2.18	0.43
1:5:42:MET:HE2	1:5:42:MET:HA	2.00	0.43
1:8:17:LEU:HD12	1:w:2:SER:OG	2.18	0.43
1:8:103:ASP:OD1	1:8:106:ARG:N	2.51	0.43
1:9:201:VAL:O	1:9:209:ALA:HB3	2.18	0.43
2:A:310:ASN:O	2:A:313:HIS:N	2.51	0.43
2:B:47:THR:HG22	2:B:48:LEU:H	1.83	0.43
2:E:315:LYS:HA	2:E:315:LYS:HE3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:483:SER:O	2:E:487:ASN:OD1	2.36	0.43
2:F:367:PHE:CE1	2:F:369:GLY:HA2	2.53	0.43
2:G:518:LEU:N	2:G:521:GLU:OE2	2.51	0.43
2:H:304:ALA:O	2:H:305:PHE:C	2.60	0.43
2:H:491:THR:O	2:H:494:THR:OG1	2.34	0.43
2:K:406:ALA:CB	2:K:410:ASP:HB2	2.47	0.43
3:N:281:VAL:HG13	3:N:282:ASP:N	2.31	0.43
3:Q:22:GLU:OE2	3:Q:293:GLN:HB3	2.18	0.43
3:S:118:ARG:NH2	3:S:205:ASP:OD2	2.47	0.43
3:T:42:ASP:O	3:T:42:ASP:CG	2.61	0.43
3:V:92:GLU:OE2	4:n:63:GLN:CB	2.66	0.43
4:c:32:LEU:HD13	4:c:459:TYR:HB2	2.00	0.43
4:f:254:ASN:OD1	4:f:254:ASN:C	2.60	0.43
4:h:194:THR:HG21	4:h:284:VAL:CG2	2.45	0.43
4:k:152:ASP:OD1	4:k:152:ASP:N	2.49	0.43
4:k:460:ALA:O	4:k:463:VAL:HG12	2.18	0.43
4:l:68:ALA:HB3	4:l:437:ILE:HD11	2.00	0.43
1:w:130:GLN:H	1:w:130:GLN:CD	2.26	0.43
1:w:169:PRO:HD2	1:w:170:PHE:CE2	2.53	0.43
1:w:231:LYS:HD2	1:w:232:PHE:H	1.82	0.43
1:x:328:SER:OG	1:y:43:PHE:HB3	2.18	0.43
1:1:368:LEU:HD22	2:D:1:MET:HA	1.99	0.43
1:2:285:LYS:HE3	1:2:285:LYS:HB3	1.78	0.43
1:3:390:LYS:HB2	2:A:552:ILE:CD1	2.48	0.43
1:5:237:ILE:HD13	1:5:267:MET:CE	2.48	0.43
1:6:141:ASN:OD1	1:6:288:ASP:OD2	2.37	0.43
1:8:296:ASN:CG	1:8:356:LEU:O	2.61	0.43
1:9:116:LEU:HD21	1:9:315:ILE:CG2	2.48	0.43
1:9:197:ASN:HB3	1:9:199:TYR:CE2	2.53	0.43
2:A:453:ASN:CB	2:A:457:GLN:HE22	2.31	0.43
2:A:484:ASP:O	2:A:488:LYS:HG2	2.17	0.43
2:A:532:TYR:CD2	2:K:545:LEU:HD23	2.53	0.43
2:C:6:ASN:OD1	2:C:6:ASN:N	2.50	0.43
2:C:252:ASP:OD1	2:C:336:TYR:CD2	2.71	0.43
2:C:545:LEU:C	2:C:545:LEU:HD13	2.43	0.43
2:E:268:ILE:HD12	2:E:268:ILE:N	2.33	0.43
2:E:343:ASP:OD1	2:E:344:LYS:N	2.51	0.43
2:E:473:THR:O	2:E:476:ASP:OD1	2.36	0.43
2:F:408:LYS:O	2:F:409:ASN:OD1	2.36	0.43
2:H:142:ASN:HB3	3:U:168:ARG:CZ	2.49	0.43
2:H:302:ALA:O	2:H:303:LEU:C	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:235:LEU:O	2:I:236:VAL:HG23	2.19	0.43
2:I:309:PHE:CB	2:I:328:PHE:HD2	2.30	0.43
2:I:551:ASN:OD1	2:I:552:ILE:N	2.52	0.43
2:J:22:VAL:O	2:J:26:ILE:HD12	2.18	0.43
2:J:133:LEU:HD13	2:J:133:LEU:C	2.43	0.43
3:M:47:SER:O	3:M:51:VAL:HG23	2.18	0.43
3:M:203:MET:HE2	3:M:235:GLY:HA3	1.99	0.43
3:O:219:ASN:O	3:O:221:GLU:N	2.42	0.43
3:R:164:VAL:HG21	3:R:170:MET:CE	2.48	0.43
3:R:190:GLU:CD	3:R:234:ARG:HE	2.25	0.43
4:c:349:LYS:HG2	4:c:359:THR:HG23	1.99	0.43
4:h:486:VAL:HB	4:h:487:PRO:HD3	2.00	0.43
4:l:365:GLY:O	4:l:371:THR:N	2.46	0.43
4:m:157:ASP:OD1	4:m:157:ASP:O	2.36	0.43
4:o:203:PHE:O	4:o:207:ALA:N	2.47	0.43
1:1:1:MET:HE2	1:1:3:PHE:HB2	2.01	0.43
1:1:13:ALA:CB	1:1:382:TYR:HD1	2.32	0.43
1:1:22:ASN:ND2	2:C:55:GLY:O	2.48	0.43
1:1:267:MET:N	1:1:267:MET:SD	2.90	0.43
1:5:187:TYR:HE2	1:5:285:LYS:HG2	1.83	0.43
1:5:228:THR:HG22	1:5:229:THR:N	2.33	0.43
1:5:367:ASP:O	1:5:371:GLU:OE2	2.37	0.43
1:6:154:MET:HG2	1:6:261:LEU:HD11	2.00	0.43
1:6:161:THR:HG23	1:6:270:ASN:O	2.18	0.43
1:6:368:LEU:HD23	1:6:372:LEU:HD12	2.01	0.43
1:9:84:ARG:NH2	1:9:134:PRO:HG2	2.33	0.43
2:A:304:ALA:CB	2:A:468:VAL:HG22	2.48	0.43
2:C:186:MET:HE3	2:C:198:LEU:CD1	2.48	0.43
2:C:274:LEU:HD13	2:C:274:LEU:O	2.18	0.43
2:D:388:ASP:OD1	2:D:392:LYS:N	2.40	0.43
2:E:70:PHE:CZ	2:E:71:ILE:CD1	3.01	0.43
2:E:262:ASP:O	2:E:264:ALA:N	2.50	0.43
2:F:88:ARG:CZ	2:F:285:THR:HB	2.48	0.43
2:F:423:ASP:O	2:F:425:ASN:ND2	2.50	0.43
2:G:309:PHE:CE1	2:G:459:LEU:HD22	2.52	0.43
2:H:287:ARG:HG2	2:H:291:LEU:HD23	1.99	0.43
2:H:371:ASP:OD1	2:H:371:ASP:N	2.51	0.43
2:H:460:LEU:O	2:H:460:LEU:HD23	2.18	0.43
2:I:181:ASP:HB2	2:I:239:SER:CB	2.48	0.43
2:I:304:ALA:HB1	2:I:468:VAL:HG13	1.99	0.43
2:I:305:PHE:O	2:I:306:ALA:C	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:441:LYS:HD2	2:I:441:LYS:O	2.19	0.43
2:J:97:ASN:OD1	2:J:97:ASN:N	2.52	0.43
2:K:229:MET:O	2:K:232:GLY:N	2.47	0.43
2:K:303:LEU:CD1	2:K:355:SER:HB2	2.48	0.43
3:N:281:VAL:HG11	3:N:283:TRP:CE2	2.53	0.43
3:O:206:THR:HG22	3:O:228:ALA:HB1	2.01	0.43
4:c:32:LEU:HD21	4:c:463:VAL:HG22	2.00	0.43
4:f:30:GLU:OE2	4:f:30:GLU:C	2.61	0.43
4:f:425:ASP:O	4:f:429:VAL:HG23	2.18	0.43
4:g:218:ASP:OD1	4:g:218:ASP:N	2.50	0.43
4:g:452:SER:OG	4:g:456:ASP:OD2	2.27	0.43
4:i:4:VAL:HG21	4:i:9:SER:CB	2.48	0.43
4:i:5:ILE:HG12	4:i:6:ASN:N	2.31	0.43
4:n:422:LEU:O	4:n:426:LEU:HD23	2.18	0.43
1:x:101:LYS:HZ1	1:x:111:MET:HG3	1.83	0.43
1:y:87:ASP:HB3	1:y:114:MET:HG2	1.99	0.43
1:y:311:VAL:O	1:y:311:VAL:CG2	2.66	0.43
1:1:389:ILE:O	1:1:393:ASP:CG	2.61	0.43
1:3:376:ILE:O	1:3:379:GLN:HG2	2.18	0.43
1:4:163:PRO:O	1:4:164:VAL:HB	2.19	0.43
1:7:22:ASN:ND2	2:I:55:GLY:HA2	2.34	0.43
1:7:389:ILE:O	1:7:393:ASP:OD2	2.37	0.43
2:A:323:LYS:HD3	2:A:323:LYS:C	2.43	0.43
2:A:449:GLY:HA3	3:O:139:TYR:CE2	2.53	0.43
2:B:290:ASP:OD1	2:B:290:ASP:N	2.51	0.43
2:C:499:GLN:OE1	2:C:499:GLN:HA	2.18	0.43
2:D:113:PHE:CE1	2:D:133:LEU:HD11	2.53	0.43
2:D:213:VAL:HG22	2:D:214:GLY:N	2.33	0.43
2:D:549:LEU:HD11	2:E:532:TYR:OH	2.18	0.43
2:E:123:ASN:OD1	2:E:123:ASN:C	2.61	0.43
2:F:106:LEU:HG	2:F:143:GLN:HG3	2.01	0.43
2:F:272:GLU:OE2	2:F:287:ARG:NH2	2.51	0.43
2:H:76:ARG:O	2:H:210:ASN:ND2	2.43	0.43
2:H:336:TYR:N	2:H:336:TYR:CD1	2.87	0.43
2:H:365:ILE:CG2	2:H:372:TRP:HE3	2.31	0.43
2:H:516:VAL:C	3:V:3:ILE:HG12	2.43	0.43
2:I:92:MET:HE3	2:I:488:LYS:C	2.43	0.43
2:I:450:ASP:OD2	3:L:142:GLU:OE2	2.35	0.43
2:J:413:LEU:O	2:J:413:LEU:HD23	2.18	0.43
2:K:309:PHE:O	2:K:313:HIS:HB2	2.18	0.43
2:K:450:ASP:OD1	2:K:451:SER:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:52:LEU:HB3	3:L:275:MET:HE2	2.00	0.43
3:L:294:GLN:C	3:L:294:GLN:CD	2.86	0.43
3:L:302:LYS:HD2	3:L:302:LYS:C	2.42	0.43
3:M:4:SER:OG	3:M:5:THR:N	2.49	0.43
3:N:312:LEU:HD22	3:N:312:LEU:O	2.17	0.43
3:P:295:ALA:HB2	4:f:488:GLN:CD	2.43	0.43
3:U:218:ASN:O	3:U:221:GLU:HB3	2.19	0.43
3:V:249:GLU:O	3:V:252:THR:HG23	2.18	0.43
3:V:304:PHE:HE1	3:V:308:GLN:HG3	1.84	0.43
4:b:17:ASN:OD1	4:b:17:ASN:N	2.51	0.43
4:f:459:TYR:CE1	4:g:490:VAL:HG12	2.53	0.43
4:h:337:GLN:OE1	4:h:343:ILE:HD11	2.19	0.43
4:k:289:LEU:CD2	4:k:289:LEU:O	2.66	0.43
4:n:14:THR:O	4:n:18:LEU:HD23	2.19	0.43
4:n:203:PHE:CE2	4:n:234:VAL:HG21	2.54	0.43
1:x:86:VAL:HA	1:x:91:SER:O	2.18	0.43
1:z:265:ASN:O	1:z:267:MET:HE1	2.18	0.43
1:1:199:TYR:CD1	1:1:199:TYR:N	2.85	0.43
1:3:95:SER:OG	1:3:332:ASN:O	2.23	0.43
1:4:25:ALA:HB1	1:5:52:VAL:HG21	1.99	0.43
1:4:85:LEU:O	1:4:93:PHE:N	2.49	0.43
1:5:79:GLN:O	1:5:96:ARG:NH2	2.50	0.43
1:6:20:ILE:O	1:6:23:ASN:HB2	2.18	0.43
1:7:25:ALA:CB	2:I:7:HIS:CE1	3.02	0.43
1:7:27:SER:CA	1:7:366:VAL:HG21	2.43	0.43
1:7:33:LYS:NZ	1:7:62:THR:O	2.51	0.43
1:7:155:GLN:H	1:7:278:ALA:HB3	1.83	0.43
1:7:188:ASP:HB3	1:7:194:HIS:CE1	2.53	0.43
1:9:182:GLY:O	1:9:198:VAL:N	2.38	0.43
1:9:296:ASN:OD1	1:9:296:ASN:N	2.51	0.43
2:A:30:ASN:CG	2:K:531:TYR:OH	2.61	0.43
2:B:98:LEU:HD21	2:B:150:TYR:OH	2.18	0.43
2:B:301:LEU:HD22	2:B:477:ALA:HB3	1.99	0.43
2:B:331:GLY:HA3	2:B:420:ALA:HB1	2.00	0.43
2:B:551:ASN:O	2:B:552:ILE:C	2.61	0.43
2:C:439:GLU:O	2:C:448:THR:HG21	2.18	0.43
2:D:166:VAL:CG2	2:D:258:VAL:HG12	2.48	0.43
2:H:40:ILE:HD12	2:H:40:ILE:N	2.34	0.43
2:H:99:LEU:HA	2:H:104:SER:CB	2.48	0.43
2:H:468:VAL:N	2:H:472:LYS:O	2.48	0.43
2:I:139:GLY:O	2:I:143:GLN:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:430:ASN:OD1	2:I:433:GLU:HG3	2.18	0.43
3:O:205:ASP:CA	3:O:208:ILE:HG12	2.41	0.43
3:O:270:GLY:O	3:O:273:LEU:HB2	2.18	0.43
3:Q:86:ALA:O	3:Q:89:THR:HG22	2.19	0.43
3:Q:148:GLN:CD	3:Q:148:GLN:H	2.27	0.43
3:Q:240:LEU:HA	3:Q:243:VAL:HG12	2.00	0.43
3:S:44:ILE:HD12	3:S:44:ILE:N	2.33	0.43
3:S:46:ALA:O	3:S:49:ALA:HB3	2.17	0.43
3:S:101:THR:OG1	4:i:70:ASP:OD2	2.26	0.43
3:S:233:ASN:ND2	4:i:152:ASP:OD1	2.52	0.43
3:T:300:SER:CB	3:U:30:MET:HE1	2.45	0.43
4:a:450:ALA:O	4:a:454:ILE:HG12	2.19	0.43
4:a:485:GLN:O	4:a:486:VAL:C	2.61	0.43
4:b:86:ASN:O	4:b:90:GLN:HG2	2.18	0.43
4:f:200:ASN:HB3	4:f:217:ILE:HD12	2.00	0.43
4:f:222:LYS:HD3	4:f:278:ASP:OD1	2.18	0.43
4:i:84:GLU:HA	4:i:84:GLU:OE2	2.17	0.43
4:k:196:ILE:O	4:k:282:VAL:N	2.42	0.43
4:m:348:THR:OG1	4:m:374:VAL:HG11	2.18	0.43
4:n:458:ASP:O	4:n:462:GLU:OE1	2.37	0.43
4:o:157:ASP:OD1	4:o:157:ASP:N	2.52	0.43
1:y:116:LEU:O	1:y:136:PRO:HA	2.18	0.43
1:y:160:SER:OG	1:y:270:ASN:O	2.30	0.43
1:z:111:MET:H	1:z:111:MET:CE	2.31	0.43
1:z:153:SER:HA	1:z:262:SER:O	2.19	0.43
1:2:196:MET:HE2	1:2:196:MET:N	2.34	0.43
1:3:119:TYR:CE2	1:3:316:VAL:HG12	2.53	0.43
1:4:140:PRO:HD2	1:4:312:LEU:HD11	2.00	0.43
1:6:77:ILE:HD11	1:6:83:PHE:CE2	2.53	0.43
1:7:30:TYR:CD2	1:7:361:LEU:HB3	2.52	0.43
1:7:153:SER:HA	1:7:262:SER:O	2.19	0.43
1:9:298:GLY:O	1:9:315:ILE:HG12	2.18	0.43
2:A:123:ASN:O	2:A:123:ASN:CG	2.62	0.43
2:A:392:LYS:HD3	2:A:392:LYS:HA	1.69	0.43
2:B:351:LYS:N	2:B:399:LYS:O	2.43	0.43
2:D:343:ASP:OD1	2:D:344:LYS:N	2.51	0.43
2:D:500:ALA:HA	2:D:503:VAL:HG12	2.01	0.43
2:F:546:PHE:CE2	2:F:550:LEU:HD21	2.53	0.43
2:H:275:LEU:N	2:H:275:LEU:HD12	2.33	0.43
2:J:296:ASN:HD22	2:J:417:VAL:HG12	1.84	0.43
2:K:252:ASP:HB3	2:K:255:ARG:HE	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:23:TRP:CZ2	3:L:290:TYR:CE1	3.07	0.43
3:M:187:ALA:HB1	3:M:238:ASN:HD21	1.80	0.43
3:N:199:ASN:OD1	3:N:201:PHE:N	2.52	0.43
3:O:249:GLU:OE2	3:O:249:GLU:O	2.37	0.43
3:S:115:GLN:O	3:S:119:ASP:OD1	2.36	0.43
3:V:8:MET:SD	3:V:307:MET:HE3	2.59	0.43
3:V:297:LEU:HD23	3:V:301:TYR:CD2	2.52	0.43
4:c:144:LEU:HD12	4:c:158:ILE:HD13	2.01	0.43
4:h:474:GLN:O	4:h:477:THR:HG22	2.19	0.43
4:i:125:ARG:NH1	4:i:129:GLN:OE1	2.46	0.43
4:j:220:ASP:OD1	4:j:280:LYS:HD3	2.19	0.43
4:j:422:LEU:HD23	4:j:422:LEU:O	2.18	0.43
4:k:10:LEU:H	4:k:10:LEU:HD12	1.83	0.43
4:n:420:ASP:OD1	4:n:421:THR:N	2.52	0.43
4:n:451:ARG:CD	4:n:455:GLU:OE2	2.64	0.43
4:n:494:LEU:CD2	4:o:480:LEU:HD12	2.49	0.43
1:z:369:SER:O	1:z:373:VAL:HG13	2.18	0.43
1:1:78:SER:O	1:1:354:GLY:HA3	2.18	0.43
1:3:379:GLN:HB2	2:A:545:LEU:CD1	2.48	0.43
1:4:382:TYR:CE1	1:5:395:ILE:HG23	2.54	0.43
1:5:114:MET:N	1:5:114:MET:SD	2.92	0.43
1:5:298:GLY:O	1:5:315:ILE:HD13	2.19	0.43
1:5:368:LEU:O	1:5:369:SER:C	2.61	0.43
1:6:112:GLN:OE1	1:6:112:GLN:N	2.51	0.43
1:8:78:SER:O	1:8:79:GLN:HB2	2.19	0.43
1:8:292:TYR:O	1:8:292:TYR:CD1	2.71	0.43
2:A:348:LEU:HD12	2:A:348:LEU:N	2.34	0.43
2:A:453:ASN:O	2:A:457:GLN:CD	2.61	0.43
2:B:303:LEU:O	2:B:304:ALA:C	2.61	0.43
2:C:338:ASN:HB3	2:C:411:SER:O	2.19	0.43
2:G:473:THR:H	2:G:476:ASP:CG	2.26	0.43
2:I:204:GLN:OE1	2:I:205:LEU:HD22	2.18	0.43
2:J:118:GLN:CD	2:J:118:GLN:C	2.86	0.43
2:K:329:SER:N	2:K:425:ASN:O	2.37	0.43
2:K:392:LYS:HE3	2:K:392:LYS:HB3	1.72	0.43
2:K:461:ASP:OD1	2:K:461:ASP:O	2.36	0.43
3:L:287:ILE:HD13	4:o:494:LEU:HD22	2.01	0.43
3:M:200:LEU:N	3:M:200:LEU:CD1	2.82	0.43
3:M:205:ASP:C	3:M:205:ASP:OD1	2.62	0.43
3:M:287:ILE:O	3:M:290:TYR:CD1	2.71	0.43
3:P:8:MET:O	3:P:12:ASN:OD1	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:22:GLU:OE1	3:P:26:LEU:HD13	2.19	0.43
3:R:58:GLN:HG3	3:R:62:TYR:CE2	2.53	0.43
3:R:164:VAL:HG11	3:R:170:MET:HE3	2.01	0.43
3:S:283:TRP:HE1	4:i:490:VAL:CG1	2.31	0.43
3:U:56:GLN:HB2	3:U:271:GLN:NE2	2.33	0.43
3:V:92:GLU:OE2	4:n:63:GLN:HB2	2.18	0.43
4:a:486:VAL:HB	4:a:487:PRO:HD3	2.00	0.43
4:f:117:THR:HG22	4:f:121:ASN:ND2	2.32	0.43
4:f:310:MET:HA	4:f:310:MET:CE	2.43	0.43
4:i:4:VAL:HG12	4:i:7:THR:CG2	2.49	0.43
4:k:372:GLU:OE1	4:k:372:GLU:N	2.42	0.43
4:l:296:LEU:HD22	4:l:301:VAL:CG1	2.48	0.43
4:m:259:LEU:HG	4:m:261:GLY:H	1.84	0.43
4:n:392:LYS:HE3	4:n:392:LYS:HA	1.99	0.43
4:n:486:VAL:CG2	4:n:487:PRO:N	2.82	0.43
1:y:366:VAL:HG13	1:y:371:GLU:OE1	2.19	0.43
1:z:23:ASN:HB2	1:z:371:GLU:OE2	2.19	0.43
1:z:77:ILE:HG12	1:z:83:PHE:HE1	1.84	0.43
1:4:112:GLN:OE1	1:4:112:GLN:N	2.45	0.43
1:4:199:TYR:O	1:4:211:TYR:N	2.50	0.43
1:4:234:GLU:OE2	1:4:235:ASN:ND2	2.51	0.43
1:4:269:GLN:HE21	1:4:273:ALA:HB3	1.84	0.43
1:5:221:THR:OG1	1:5:224:THR:HG21	2.18	0.43
1:6:60:ASP:OD1	1:6:60:ASP:N	2.52	0.43
1:6:121:ALA:HA	1:6:128:ILE:HA	2.01	0.43
1:6:144:MET:HG3	1:6:310:GLN:OE1	2.19	0.43
1:7:4:SER:HA	1:7:7:VAL:HG12	1.99	0.43
1:7:102:LEU:HD22	1:7:139:ILE:HG22	2.01	0.43
2:A:511:GLN:O	2:A:515:GLY:N	2.50	0.43
2:C:131:GLN:O	2:C:134:ILE:HG13	2.19	0.43
2:C:182:GLN:HA	2:C:182:GLN:NE2	2.34	0.43
2:C:205:LEU:N	2:C:205:LEU:HD22	2.33	0.43
2:C:493:LYS:O	2:C:496:SER:OG	2.32	0.43
2:E:156:LYS:CA	2:E:156:LYS:CE	2.89	0.43
2:E:215:VAL:O	2:E:215:VAL:CG2	2.67	0.43
2:E:517:ASN:OD1	3:S:7:MET:HE1	2.18	0.43
2:F:334:VAL:HG21	2:F:419:ASN:ND2	2.34	0.43
2:F:367:PHE:CZ	2:F:369:GLY:HA2	2.53	0.43
2:G:38:THR:CG2	2:G:39:THR:N	2.81	0.43
2:H:439:GLU:HB3	2:H:446:VAL:HG21	1.99	0.43
2:H:517:ASN:CB	3:V:3:ILE:HG13	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:546:PHE:CD2	1:w:380:ARG:HD2	2.52	0.43
2:J:508:LYS:CE	3:M:7:MET:HE3	2.48	0.43
2:K:228:THR:HG23	2:K:233:TYR:O	2.18	0.43
3:N:200:LEU:O	3:N:203:MET:HG2	2.19	0.43
3:O:134:TYR:O	3:O:141:THR:HA	2.19	0.43
3:Q:105:ASP:OD1	3:Q:105:ASP:C	2.60	0.43
3:S:199:ASN:O	3:S:203:MET:HG2	2.19	0.43
3:S:284:ASN:HA	3:S:287:ILE:CG2	2.49	0.43
4:a:171:ASP:N	4:a:171:ASP:OD1	2.50	0.43
4:b:125:ARG:O	4:b:129:GLN:HG2	2.18	0.43
4:f:452:SER:OG	4:f:453:ARG:NH1	2.51	0.43
4:g:284:VAL:HG22	4:g:288:ASP:OD2	2.19	0.43
4:g:480:LEU:CD2	4:g:484:ASN:OD1	2.66	0.43
4:h:230:TYR:HB2	4:h:248:VAL:HG23	2.01	0.43
4:k:74:ILE:HD11	4:k:137:VAL:HG12	2.01	0.43
4:l:426:LEU:O	4:l:429:VAL:HG12	2.19	0.43
4:o:204:LYS:NZ	4:o:214:ASP:OD1	2.35	0.43
1:w:99:GLN:OE1	1:w:99:GLN:O	2.35	0.43
1:w:382:TYR:CD1	1:w:382:TYR:C	2.96	0.43
1:x:101:LYS:HE2	1:x:101:LYS:HB3	1.85	0.43
1:y:349:GLY:N	1:y:354:GLY:O	2.52	0.43
1:y:396:LEU:HD21	1:z:380:ARG:HE	1.83	0.43
1:1:60:ASP:OD1	1:1:61:PHE:N	2.52	0.43
1:2:60:ASP:OD1	1:2:62:THR:HG23	2.19	0.43
1:2:179:ASN:N	1:2:200:PHE:O	2.28	0.43
1:4:329:GLN:C	1:5:43:PHE:CZ	2.96	0.43
1:8:46:SER:O	1:8:48:VAL:N	2.52	0.43
2:A:16:GLN:HA	2:A:19:LEU:HD12	2.01	0.43
2:A:372:TRP:N	2:A:372:TRP:CD1	2.85	0.43
2:A:535:ASN:O	2:A:538:VAL:HG12	2.19	0.43
2:F:525:LEU:O	2:F:529:GLN:HG3	2.19	0.43
2:G:310:ASN:HB3	2:G:326:ASP:OD1	2.19	0.43
2:G:359:GLN:HB2	2:G:361:THR:HG22	2.01	0.43
2:H:312:GLN:OE1	2:H:315:LYS:NZ	2.48	0.43
2:H:360:ALA:O	2:H:361:THR:HG23	2.19	0.43
2:I:97:ASN:O	2:I:100:ALA:HB3	2.19	0.43
2:I:309:PHE:CB	2:I:328:PHE:CD2	3.02	0.43
2:I:336:TYR:HB2	2:I:413:LEU:HD23	2.01	0.43
2:K:140:LEU:HD23	2:K:140:LEU:O	2.19	0.43
2:K:240:THR:HG22	2:K:241:ALA:N	2.34	0.43
2:K:357:LYS:HG2	2:K:396:ASP:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:547:ASP:OD1	2:K:547:ASP:N	2.50	0.43
3:M:162:GLN:OE1	3:M:162:GLN:N	2.52	0.43
3:O:73:VAL:HA	3:O:76:GLU:OE1	2.18	0.43
3:O:287:ILE:O	3:O:291:VAL:HG13	2.19	0.43
3:Q:302:LYS:HE2	3:R:313:PHE:HZ	1.84	0.43
3:T:307:MET:O	3:T:308:GLN:C	2.62	0.43
4:c:144:LEU:HD13	4:c:145:THR:N	2.34	0.43
4:e:223:PHE:N	4:e:277:GLU:O	2.38	0.43
4:h:337:GLN:NE2	4:h:341:GLY:HA2	2.34	0.43
4:k:159:ASP:OD1	4:k:160:LEU:N	2.52	0.43
4:n:6:ASN:O	4:n:7:THR:HG22	2.19	0.43
1:w:224:THR:O	1:w:225:THR:C	2.62	0.43
1:w:333:VAL:HG22	1:w:334:TRP:N	2.34	0.43
1:y:170:PHE:CG	1:y:171:SER:N	2.87	0.43
1:y:395:ILE:O	1:y:398:THR:HB	2.19	0.43
1:z:17:LEU:HD13	1:z:379:GLN:HE21	1.84	0.43
1:2:19:VAL:HA	1:3:48:VAL:HG12	2.01	0.43
1:2:65:THR:HG23	2:C:53:TRP:HB3	2.01	0.43
1:3:62:THR:HG21	2:B:53:TRP:HA	1.99	0.43
1:7:84:ARG:HG2	1:7:117:THR:HG21	2.01	0.43
1:8:20:ILE:HD11	1:8:374:ASN:CB	2.48	0.43
1:8:242:GLY:O	1:8:243:THR:HG23	2.18	0.43
1:9:93:PHE:HB3	1:9:333:VAL:CG1	2.49	0.43
1:9:107:ASN:OD1	1:9:138:THR:HG22	2.18	0.43
2:A:167:ALA:O	2:A:171:ASN:OD1	2.36	0.43
2:A:227:LEU:HD12	2:A:227:LEU:N	2.34	0.43
2:A:303:LEU:HD22	2:A:330:ILE:HG12	2.00	0.43
2:C:111:GLN:O	2:C:115:THR:HG23	2.19	0.43
2:C:306:ALA:HB1	2:C:328:PHE:HB3	1.97	0.43
2:E:338:ASN:ND2	2:E:340:ASN:OD1	2.51	0.43
2:E:550:LEU:O	2:E:551:ASN:C	2.61	0.43
2:F:29:TYR:CD1	2:F:29:TYR:C	2.96	0.43
2:F:394:GLU:HA	2:F:394:GLU:OE2	2.19	0.43
2:I:38:THR:OG1	2:I:66:GLU:OE2	2.29	0.43
2:I:102:LYS:H	2:I:102:LYS:CD	2.32	0.43
2:J:533:LEU:HG	3:N:316:ASN:CG	2.44	0.43
2:K:159:ASN:HA	2:K:162:ILE:HD12	2.01	0.43
3:N:6:GLN:H	3:N:6:GLN:CD	2.27	0.43
3:N:281:VAL:HG21	3:N:283:TRP:NE1	2.33	0.43
3:Q:254:LEU:HD23	3:Q:254:LEU:C	2.44	0.43
3:R:310:MET:HE3	3:R:311:SER:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:c:10:LEU:O	4:c:11:SER:C	2.61	0.43
4:h:168:LEU:HD12	4:h:415:ALA:CB	2.49	0.43
4:h:339:LYS:CD	4:h:339:LYS:N	2.82	0.43
4:i:38:ILE:HD12	4:i:43:ASP:CB	2.49	0.43
4:k:172:THR:O	4:k:173:LEU:C	2.62	0.43
4:k:204:LYS:HA	4:k:207:ALA:HB3	1.99	0.43
4:l:17:ASN:OD1	4:l:17:ASN:C	2.62	0.43
1:w:20:ILE:HD12	1:w:375:MET:HA	2.01	0.43
1:w:236:GLY:HA2	1:w:268:GLN:HB3	2.00	0.43
1:w:374:ASN:O	1:w:377:VAL:CG1	2.67	0.43
1:z:128:ILE:HD11	1:z:313:GLY:H	1.83	0.43
1:2:122:THR:C	1:2:126:PRO:HA	2.44	0.42
1:2:252:ASN:OD1	1:2:252:ASN:N	2.51	0.42
1:4:18:ASP:HA	1:5:45:GLY:H	1.83	0.42
1:4:23:ASN:CG	1:4:34:SER:HA	2.44	0.42
1:5:30:TYR:CD2	1:5:361:LEU:HD13	2.54	0.42
1:5:188:ASP:OD2	1:5:192:ASN:HB3	2.18	0.42
1:6:159:ASN:OD1	1:6:271:THR:HA	2.18	0.42
1:7:119:TYR:CG	1:7:130:GLN:HA	2.54	0.42
1:8:184:VAL:O	1:8:184:VAL:HG13	2.19	0.42
1:9:368:LEU:HD21	1:x:384:SER:CB	2.49	0.42
1:9:381:ASN:O	1:9:384:SER:OG	2.27	0.42
2:B:301:LEU:HD22	2:B:477:ALA:HB1	2.01	0.42
2:B:303:LEU:HD22	2:B:358:VAL:HG21	2.00	0.42
2:C:482:VAL:HA	2:C:485:VAL:HG12	2.01	0.42
2:D:9:MET:HE3	2:D:9:MET:CA	2.28	0.42
2:E:314:THR:HG1	2:E:315:LYS:NZ	2.17	0.42
2:F:29:TYR:CE2	3:S:296:ALA:HB2	2.54	0.42
2:H:116:SER:O	2:H:119:THR:HG22	2.19	0.42
2:I:421:ILE:H	2:I:421:ILE:HD12	1.84	0.42
2:J:100:ALA:HB1	3:M:38:ASN:HA	2.00	0.42
2:J:275:LEU:HD12	2:J:275:LEU:N	2.34	0.42
2:J:354:ASP:OD2	2:J:357:LYS:HB3	2.19	0.42
3:O:26:LEU:CD2	3:O:290:TYR:HB2	2.49	0.42
3:Q:92:GLU:OE2	4:f:63:GLN:HB2	2.19	0.42
3:R:274:GLN:O	3:R:274:GLN:OE1	2.37	0.42
3:S:190:GLU:OE1	3:S:234:ARG:NE	2.48	0.42
3:T:293:GLN:OE1	3:T:293:GLN:O	2.37	0.42
3:V:47:SER:O	3:V:50:VAL:HG22	2.19	0.42
3:V:122:MET:HE2	3:V:122:MET:HA	2.01	0.42
4:a:480:LEU:O	4:a:484:ASN:OD1	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:c:32:LEU:CD1	4:c:459:TYR:HB2	2.50	0.42
4:c:48:GLN:CD	4:c:48:GLN:C	2.87	0.42
4:c:406:GLU:N	4:c:406:GLU:OE2	2.52	0.42
4:c:459:TYR:CD2	4:d:5:ILE:HD11	2.54	0.42
4:f:83:ASN:OD1	4:f:83:ASN:N	2.52	0.42
1:w:22:ASN:OD1	1:w:22:ASN:C	2.62	0.42
1:w:236:GLY:CA	1:w:268:GLN:H	2.31	0.42
1:w:244:VAL:HG22	1:w:245:ASN:N	2.35	0.42
1:x:41:ASP:OD1	1:x:42:MET:N	2.52	0.42
1:x:156:ILE:HG23	1:x:276:ILE:HG12	2.01	0.42
1:x:196:MET:SD	1:x:213:HIS:O	2.77	0.42
1:z:100:PHE:CE1	1:z:116:LEU:HD23	2.54	0.42
1:2:292:TYR:O	1:2:292:TYR:CD1	2.71	0.42
1:3:367:ASP:HA	2:B:1:MET:SD	2.59	0.42
1:4:86:VAL:HG22	1:4:117:THR:CG2	2.48	0.42
1:4:94:TYR:O	1:4:334:TRP:HB2	2.19	0.42
1:7:187:TYR:N	1:7:187:TYR:CD1	2.87	0.42
1:7:196:MET:SD	1:7:197:ASN:N	2.92	0.42
1:8:255:THR:CG2	1:9:234:GLU:HB2	2.43	0.42
1:9:130:GLN:H	1:9:130:GLN:CD	2.26	0.42
2:A:149:GLN:O	2:A:153:ASP:OD2	2.36	0.42
2:A:473:THR:O	2:A:476:ASP:OD1	2.37	0.42
2:A:532:TYR:CE2	2:K:545:LEU:HD23	2.54	0.42
2:A:551:ASN:CG	2:A:552:ILE:N	2.77	0.42
2:B:150:TYR:CD1	2:B:150:TYR:C	2.97	0.42
2:C:473:THR:C	2:C:476:ASP:OD1	2.62	0.42
2:D:138:GLU:CD	2:D:138:GLU:N	2.76	0.42
2:D:346:VAL:O	2:D:412:PHE:CE2	2.72	0.42
2:D:443:ASP:OD1	2:D:443:ASP:N	2.52	0.42
2:F:9:MET:HE2	2:F:13:ASN:OD1	2.17	0.42
2:F:317:TYR:CE1	2:F:439:GLU:HA	2.55	0.42
2:F:367:PHE:CE2	2:F:407:GLN:HA	2.53	0.42
2:H:68:ASP:C	2:H:70:PHE:H	2.27	0.42
2:I:358:VAL:HA	2:I:396:ASP:O	2.18	0.42
2:J:530:GLN:OE1	3:N:312:LEU:HG	2.19	0.42
3:M:72:LYS:HB3	3:M:76:GLU:OE1	2.19	0.42
3:T:274:GLN:O	3:T:278:LEU:HD22	2.18	0.42
3:V:36:VAL:HG23	3:V:41:ASP:HB2	2.01	0.42
4:f:183:ASP:OD1	4:f:183:ASP:C	2.62	0.42
4:g:223:PHE:HD2	4:g:277:GLU:CD	2.26	0.42
4:i:224:ASP:OD2	4:i:274:THR:OG1	2.26	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:i:336:THR:O	4:i:344:SER:N	2.45	0.42
4:j:459:TYR:O	4:j:463:VAL:HG23	2.18	0.42
4:m:8:ASN:OD1	4:m:10:LEU:N	2.52	0.42
4:n:351:THR:HB	4:n:390:ASN:HA	2.01	0.42
4:o:10:LEU:O	4:o:10:LEU:HD23	2.19	0.42
4:o:480:LEU:C	4:o:480:LEU:CD1	2.91	0.42
1:w:167:LYS:HZ2	1:w:167:LYS:HB3	1.84	0.42
1:2:194:HIS:O	1:2:196:MET:HE1	2.19	0.42
1:3:16:ASN:OD1	1:3:16:ASN:C	2.62	0.42
1:3:178:TYR:CE2	1:3:181:LYS:HB2	2.54	0.42
1:4:15:THR:O	1:4:16:ASN:C	2.61	0.42
1:4:312:LEU:HG	1:4:312:LEU:O	2.18	0.42
1:6:368:LEU:HD23	1:6:372:LEU:CD1	2.49	0.42
1:7:69:THR:CB	1:7:71:ARG:HD3	2.49	0.42
2:C:65:ARG:HG2	2:C:196:ASN:OD1	2.19	0.42
2:C:110:LEU:HD23	2:C:114:PHE:HD2	1.84	0.42
2:E:59:TYR:CE2	2:E:61:SER:HB2	2.54	0.42
2:F:150:TYR:CE1	2:F:154:GLN:NE2	2.87	0.42
2:H:35:THR:CG2	2:H:65:ARG:HD3	2.49	0.42
2:H:287:ARG:HG2	2:H:291:LEU:CD2	2.50	0.42
2:I:469:GLY:O	2:I:472:LYS:CA	2.66	0.42
2:J:127:PRO:HA	2:J:130:ARG:HD2	2.01	0.42
2:J:366:VAL:HG12	2:J:411:SER:HB2	1.99	0.42
2:J:520:GLU:HA	3:N:13:MET:CE	2.50	0.42
3:L:120:GLN:NE2	3:L:120:GLN:CA	2.82	0.42
3:L:299:ALA:O	3:L:303:THR:OG1	2.30	0.42
3:N:86:ALA:O	3:N:89:THR:HG22	2.19	0.42
3:P:4:SER:O	3:P:8:MET:SD	2.76	0.42
3:P:92:GLU:OE1	4:e:63:GLN:HB2	2.19	0.42
3:R:287:ILE:HD13	4:h:494:LEU:HD22	2.00	0.42
3:R:310:MET:HE3	3:R:311:SER:CA	2.49	0.42
3:S:38:ASN:OD1	3:S:38:ASN:C	2.62	0.42
3:U:34:LYS:HE2	3:U:279:VAL:CG2	2.48	0.42
3:U:256:GLU:O	3:U:260:LEU:CD2	2.68	0.42
3:V:16:ILE:CD1	3:V:20:GLN:NE2	2.82	0.42
3:V:26:LEU:O	3:V:30:MET:HB2	2.19	0.42
4:a:309:LYS:NZ	4:a:322:GLY:O	2.53	0.42
4:c:13:LEU:C	4:c:13:LEU:HD23	2.44	0.42
4:g:331:ASP:CG	4:g:363:LYS:HZ1	2.27	0.42
4:g:493:LEU:HD12	4:g:493:LEU:O	2.19	0.42
4:j:204:LYS:HA	4:j:207:ALA:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:j:420:ASP:OD1	4:j:420:ASP:N	2.53	0.42
4:k:296:LEU:HD11	4:k:301:VAL:HG12	2.01	0.42
4:k:482:GLN:HA	4:k:485:GLN:HG2	2.01	0.42
4:o:180:LYS:NZ	4:o:182:SER:OG	2.52	0.42
1:w:102:LEU:H	1:w:102:LEU:CD2	2.32	0.42
1:x:61:PHE:CE2	1:x:323:ASN:HB2	2.54	0.42
1:x:201:VAL:N	1:x:209:ALA:O	2.41	0.42
1:x:311:VAL:O	1:x:311:VAL:HG13	2.19	0.42
1:z:144:MET:SD	1:z:304:TYR:CG	3.12	0.42
1:z:154:MET:SD	1:z:155:GLN:N	2.92	0.42
1:z:196:MET:SD	1:z:196:MET:N	2.92	0.42
1:5:4:SER:OG	1:5:46:SER:CB	2.68	0.42
1:6:106:ARG:HD2	1:6:140:PRO:HA	2.02	0.42
1:7:170:PHE:HD1	1:7:177:SER:OG	2.02	0.42
1:7:333:VAL:N	2:I:45:ASN:HB3	2.34	0.42
2:A:12:LEU:HG	2:A:535:ASN:HB3	2.01	0.42
2:A:116:SER:HB2	2:A:132:ALA:HB1	2.02	0.42
2:A:181:ASP:OD2	2:A:182:GLN:NE2	2.52	0.42
2:A:299:GLY:HA2	2:A:421:ILE:HD11	2.01	0.42
2:A:344:LYS:HG3	2:A:344:LYS:O	2.19	0.42
2:C:26:ILE:HD13	2:C:521:GLU:HB2	2.01	0.42
2:C:52:GLY:O	2:C:53:TRP:C	2.61	0.42
2:C:408:LYS:CE	2:C:409:ASN:OD1	2.67	0.42
2:D:358:VAL:HG13	2:D:358:VAL:O	2.19	0.42
2:D:399:LYS:HD2	2:D:400:VAL:N	2.34	0.42
2:E:329:SER:OG	2:E:425:ASN:N	2.51	0.42
2:E:447:ASP:HB3	3:S:157:GLU:OE1	2.20	0.42
2:G:28:ASN:ND2	2:G:34:TYR:CE1	2.88	0.42
2:G:469:GLY:HA3	2:G:472:LYS:HB2	2.02	0.42
2:H:305:PHE:O	2:H:306:ALA:C	2.62	0.42
2:H:446:VAL:HG22	2:H:447:ASP:N	2.34	0.42
2:J:88:ARG:HH22	2:J:488:LYS:HZ1	1.66	0.42
2:J:306:ALA:HB1	2:J:328:PHE:CB	2.50	0.42
2:J:440:SER:OG	2:J:443:ASP:N	2.52	0.42
2:K:310:ASN:O	2:K:311:ALA:C	2.60	0.42
3:L:261:ASP:OD1	3:L:261:ASP:C	2.61	0.42
3:M:52:LEU:CD1	3:M:274:GLN:CD	2.92	0.42
3:M:163:GLN:HG3	3:M:168:ARG:O	2.18	0.42
3:N:30:MET:HE3	3:N:30:MET:C	2.44	0.42
3:P:168:ARG:NH1	3:P:256:GLU:OE2	2.52	0.42
3:Q:77:GLU:HG2	4:f:41:ALA:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:172:ILE:O	3:Q:172:ILE:HD12	2.19	0.42
3:Q:182:SER:O	3:Q:242:ASN:ND2	2.52	0.42
3:Q:300:SER:HA	3:Q:303:THR:HG22	2.01	0.42
3:T:22:GLU:C	3:T:22:GLU:OE1	2.63	0.42
3:T:311:SER:O	3:T:314:GLN:HB3	2.19	0.42
4:a:71:GLY:O	4:a:74:ILE:HG22	2.19	0.42
4:c:99:SER:CB	4:c:175:VAL:HG21	2.46	0.42
4:n:309:LYS:HD3	4:n:310:MET:N	2.35	0.42
4:o:3:GLN:O	4:o:4:VAL:CG2	2.65	0.42
4:o:225:ASP:OD1	4:o:226:THR:N	2.52	0.42
1:w:164:VAL:HB	1:w:202:LYS:HZ2	1.82	0.42
1:x:42:MET:HE3	1:x:43:PHE:O	2.20	0.42
1:x:109:VAL:HA	1:x:114:MET:O	2.19	0.42
1:y:59:GLN:O	1:y:61:PHE:CE1	2.73	0.42
1:2:155:GLN:O	1:2:277:VAL:O	2.38	0.42
1:2:170:PHE:CG	1:2:171:SER:N	2.86	0.42
1:2:191:GLY:O	1:2:285:LYS:HD2	2.20	0.42
1:4:20:ILE:HG23	1:4:371:GLU:OE2	2.20	0.42
1:4:155:GLN:H	1:4:278:ALA:HB3	1.84	0.42
1:4:170:PHE:CD1	1:4:170:PHE:C	2.94	0.42
1:5:1:MET:O	1:5:2:SER:C	2.62	0.42
1:7:20:ILE:HG21	1:7:375:MET:CE	2.49	0.42
1:7:30:TYR:CD1	1:7:363:ALA:HA	2.54	0.42
1:7:285:LYS:NZ	1:7:288:ASP:OD2	2.47	0.42
1:7:356:LEU:HD22	1:7:356:LEU:N	2.34	0.42
2:A:30:ASN:OD1	2:K:531:TYR:OH	2.26	0.42
2:A:441:LYS:HD2	2:A:448:THR:OG1	2.18	0.42
2:B:48:LEU:HD11	2:C:189:VAL:O	2.20	0.42
2:B:59:TYR:CD1	2:B:59:TYR:C	2.97	0.42
2:B:145:LYS:HZ3	2:B:145:LYS:HB2	1.85	0.42
2:B:183:ILE:CG1	2:B:198:LEU:HD22	2.48	0.42
2:C:400:VAL:HG12	2:C:401:THR:O	2.18	0.42
2:C:408:LYS:C	2:C:409:ASN:OD1	2.63	0.42
2:E:216:GLU:CD	2:E:218:SER:H	2.27	0.42
2:E:441:LYS:HE3	2:E:450:ASP:HA	2.00	0.42
2:H:65:ARG:HE	2:H:196:ASN:HA	1.83	0.42
2:H:307:ASP:O	2:H:308:ALA:C	2.62	0.42
2:H:388:ASP:OD1	2:H:392:LYS:N	2.52	0.42
2:I:157:GLN:OE1	2:I:157:GLN:HA	2.19	0.42
2:I:227:LEU:O	2:I:234:THR:HG23	2.19	0.42
2:I:301:LEU:HD13	2:I:468:VAL:HG11	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:174:LYS:HE2	2:J:174:LYS:HB2	1.85	0.42
2:J:301:LEU:HD11	2:J:477:ALA:CB	2.48	0.42
2:J:439:GLU:HG2	2:J:448:THR:HG21	2.01	0.42
2:J:452:ASP:HA	3:M:139:TYR:CZ	2.54	0.42
2:J:476:ASP:OD1	2:J:476:ASP:C	2.62	0.42
2:J:517:ASN:OD1	2:J:521:GLU:OE2	2.38	0.42
2:K:329:SER:O	2:K:424:MET:HA	2.19	0.42
3:N:219:ASN:C	3:N:221:GLU:H	2.27	0.42
3:P:286:VAL:HG21	4:e:3:GLN:HE22	1.85	0.42
3:Q:283:TRP:C	3:Q:286:VAL:CG1	2.92	0.42
3:S:283:TRP:CE3	4:i:494:LEU:HG	2.54	0.42
3:U:256:GLU:HG3	3:U:260:LEU:CD2	2.50	0.42
3:U:315:LEU:HD13	3:U:315:LEU:C	2.44	0.42
3:V:4:SER:O	3:V:7:MET:HG2	2.20	0.42
4:a:216:LYS:HE3	4:a:216:LYS:HA	2.01	0.42
4:b:4:VAL:O	4:b:8:ASN:CG	2.62	0.42
4:e:247:GLU:O	4:e:260:ALA:N	2.51	0.42
4:f:94:GLU:OE2	4:g:63:GLN:HG2	2.19	0.42
4:g:479:VAL:HG13	4:h:29:ILE:CG1	2.49	0.42
4:i:16:ASN:H	4:i:16:ASN:HD22	1.67	0.42
4:i:155:THR:C	4:i:156:ILE:HD12	2.44	0.42
4:j:13:LEU:C	4:j:13:LEU:HD23	2.44	0.42
4:k:231:TYR:CD1	4:k:275:ALA:HB2	2.55	0.42
4:m:127:SER:OG	4:m:163:ILE:O	2.29	0.42
4:n:483:ALA:O	4:n:487:PRO:HD3	2.20	0.42
4:o:490:VAL:O	4:o:493:LEU:HB3	2.19	0.42
1:w:102:LEU:N	1:w:102:LEU:HD23	2.34	0.42
1:w:158:LEU:HA	1:w:274:ASN:OD1	2.19	0.42
1:x:399:LEU:O	1:x:403:ARG:N	2.49	0.42
1:z:77:ILE:HG22	1:z:78:SER:N	2.35	0.42
1:2:187:TYR:CD1	1:2:187:TYR:N	2.88	0.42
1:3:271:THR:OG1	2:C:422:VAL:HG11	2.20	0.42
1:5:47:LYS:HD2	1:5:49:GLY:H	1.85	0.42
1:5:113:GLY:C	1:5:114:MET:HE3	2.44	0.42
1:5:168:THR:N	1:5:169:PRO:CD	2.83	0.42
1:6:154:MET:O	1:6:263:PHE:HA	2.19	0.42
1:7:399:LEU:HD13	1:7:400:VAL:N	2.35	0.42
1:9:376:ILE:O	1:9:380:ARG:HG2	2.20	0.42
2:A:121:VAL:HG13	2:A:453:ASN:HD21	1.85	0.42
2:A:403:GLY:O	2:A:404:THR:HG22	2.19	0.42
2:A:510:GLN:OE1	2:A:514:SER:OG	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:45:ASN:CG	2:C:46:SER:N	2.76	0.42
2:C:136:LYS:HD3	2:C:136:LYS:N	2.34	0.42
2:C:368:ASP:OD1	2:C:368:ASP:N	2.52	0.42
2:C:488:LYS:HE2	2:C:492:LEU:CD1	2.50	0.42
2:D:318:ASP:OD1	2:D:319:ALA:N	2.48	0.42
2:E:168:GLN:HA	2:E:171:ASN:ND2	2.33	0.42
2:F:329:SER:OG	2:F:425:ASN:N	2.52	0.42
2:F:527:ARG:C	2:F:527:ARG:CD	2.92	0.42
2:I:1:MET:HE2	2:I:1:MET:HA	2.01	0.42
2:I:2:SER:C	2:I:4:LEU:N	2.75	0.42
2:I:548:ALA:O	2:I:551:ASN:CG	2.62	0.42
2:J:124:ALA:HB3	2:J:451:SER:HA	2.01	0.42
2:K:172:TYR:HB2	2:K:209:LEU:HD13	2.02	0.42
3:N:312:LEU:HD13	3:N:313:PHE:CA	2.48	0.42
3:O:10:GLU:OE2	3:O:11:GLN:N	2.53	0.42
3:O:26:LEU:HD13	3:O:290:TYR:CA	2.49	0.42
3:O:269:LEU:HD12	4:c:16:ASN:HD21	1.85	0.42
3:Q:53:SER:O	3:Q:56:GLN:HG2	2.19	0.42
4:a:406:GLU:OE2	4:a:406:GLU:CA	2.68	0.42
4:b:354:ASP:OD1	4:b:355:GLY:N	2.53	0.42
4:c:184:THR:O	4:c:309:LYS:N	2.34	0.42
4:c:494:LEU:C	4:c:495:ARG:HE	2.27	0.42
4:d:289:LEU:CD1	4:d:343:ILE:HB	2.50	0.42
4:d:350:TYR:O	4:d:350:TYR:CG	2.72	0.42
4:g:44:ASP:OD1	4:g:47:GLY:N	2.47	0.42
4:g:106:GLN:HB3	4:g:179:TYR:CZ	2.54	0.42
4:h:345:ILE:O	4:h:347:THR:HG23	2.20	0.42
4:i:467:SER:O	4:i:471:ILE:HG22	2.18	0.42
4:j:330:ASP:C	4:j:330:ASP:OD1	2.62	0.42
4:n:171:ASP:OD1	4:n:172:THR:N	2.53	0.42
4:n:204:LYS:HA	4:n:207:ALA:HB3	2.00	0.42
4:n:310:MET:CE	4:n:325:ALA:N	2.83	0.42
1:w:307:GLU:O	1:w:307:GLU:CD	2.63	0.42
1:x:247:THR:HG22	1:x:248:THR:O	2.20	0.42
1:y:165:PRO:HG3	1:y:201:VAL:HG23	2.02	0.42
1:y:281:GLN:OE1	1:y:283:GLY:N	2.51	0.42
1:1:5:GLN:HA	1:1:51:GLY:CA	2.50	0.42
1:2:293:GLN:OE1	1:2:293:GLN:N	2.52	0.42
1:7:309:GLU:CD	1:7:309:GLU:N	2.78	0.42
2:C:126:ASP:OD1	2:C:129:ALA:HB3	2.18	0.42
2:C:386:THR:OG1	2:C:394:GLU:OE2	2.21	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:235:LEU:HD22	2:D:235:LEU:N	2.35	0.42
2:D:406:ALA:HB1	2:D:410:ASP:HB2	2.01	0.42
2:D:520:GLU:CD	2:D:521:GLU:OE2	2.63	0.42
2:E:199:LEU:HD12	2:E:199:LEU:N	2.35	0.42
2:E:520:GLU:HB2	2:E:521:GLU:OE1	2.20	0.42
2:G:64:GLN:OE1	2:G:66:GLU:N	2.52	0.42
2:G:92:MET:HG2	2:G:492:LEU:HD12	2.01	0.42
2:H:527:ARG:HD2	2:I:30:ASN:OD1	2.19	0.42
2:J:309:PHE:CD1	2:J:309:PHE:C	2.97	0.42
2:K:361:THR:HG21	2:K:376:ARG:HB3	2.01	0.42
3:M:306:ASP:OD1	3:M:306:ASP:N	2.50	0.42
3:N:243:VAL:O	3:N:247:ARG:HG3	2.20	0.42
3:Q:34:LYS:C	3:Q:281:VAL:HG13	2.45	0.42
3:Q:305:THR:OG1	3:Q:306:ASP:N	2.52	0.42
3:T:244:LEU:HD22	4:k:48:GLN:NE2	2.35	0.42
3:U:28:GLU:OE1	3:U:28:GLU:CA	2.67	0.42
3:U:219:ASN:O	3:U:220:VAL:HB	2.19	0.42
4:b:493:LEU:HD22	4:c:477:THR:HG22	2.01	0.42
4:c:127:SER:HB2	4:c:163:ILE:O	2.19	0.42
4:c:177:GLN:CD	4:c:315:ASN:HD21	2.28	0.42
4:c:339:LYS:HD3	4:c:339:LYS:N	2.34	0.42
4:f:3:GLN:CG	4:f:5:ILE:CG2	2.76	0.42
4:h:439:ASN:OD1	4:h:439:ASN:C	2.63	0.42
4:i:207:ALA:HB1	4:i:215:GLN:HB2	2.01	0.42
4:j:180:LYS:NZ	4:j:182:SER:OG	2.47	0.42
4:l:353:ASP:N	4:l:353:ASP:OD1	2.52	0.42
4:l:446:ASN:OD1	4:l:446:ASN:C	2.62	0.42
4:m:251:ASP:OD2	4:m:253:THR:HG22	2.19	0.42
1:w:48:VAL:O	1:w:48:VAL:CG2	2.66	0.42
1:w:163:PRO:C	1:w:164:VAL:HG13	2.44	0.42
1:w:178:TYR:CG	1:w:199:TYR:HD2	2.38	0.42
1:w:230:LEU:HB2	1:w:232:PHE:CZ	2.55	0.42
1:x:42:MET:HE3	1:x:42:MET:HA	2.02	0.42
1:x:65:THR:OG1	1:x:363:ALA:HB3	2.19	0.42
1:x:206:ASN:HB3	1:x:268:GLN:NE2	2.35	0.42
1:x:367:ASP:O	1:x:371:GLU:OE1	2.38	0.42
1:y:285:LYS:HB2	1:y:286:PRO:CD	2.50	0.42
1:z:238:LEU:HD22	1:z:266:SER:HB2	2.00	0.42
1:z:247:THR:HG23	1:z:258:THR:OG1	2.20	0.42
1:z:267:MET:HE3	1:z:267:MET:HB3	1.94	0.42
1:1:120:PRO:O	1:1:128:ILE:HD12	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:121:ALA:HB3	1:1:312:LEU:HA	2.01	0.42
1:1:206:ASN:O	1:1:231:LYS:HA	2.20	0.42
1:3:190:GLN:HB2	1:3:254:ALA:HB2	2.02	0.42
1:3:370:LYS:O	1:3:373:VAL:HG22	2.20	0.42
1:4:118:GLY:O	1:4:135:ALA:N	2.50	0.42
1:4:158:LEU:HD12	1:4:268:GLN:HB2	2.01	0.42
1:5:223:PRO:C	1:5:224:THR:HG23	2.44	0.42
1:7:16:ASN:O	1:7:20:ILE:HG22	2.19	0.42
1:7:379:GLN:HG2	1:7:380:ARG:HH11	1.85	0.42
1:7:397:ASN:O	1:7:400:VAL:HG12	2.20	0.42
1:8:18:ASP:C	1:w:48:VAL:HG21	2.45	0.42
2:A:155:ASP:HB3	2:A:295:ARG:NH2	2.34	0.42
2:A:216:GLU:OE2	2:A:217:VAL:HG22	2.20	0.42
2:A:275:LEU:C	2:A:277:THR:N	2.77	0.42
2:A:390:ASP:O	2:A:390:ASP:CG	2.62	0.42
2:B:130:ARG:CB	2:B:434:ILE:HD12	2.49	0.42
2:B:141:VAL:HG12	2:B:145:LYS:NZ	2.35	0.42
2:C:333:PRO:HB3	2:C:416:PRO:HA	2.02	0.42
2:E:29:TYR:CE2	2:E:516:VAL:HB	2.55	0.42
2:G:545:LEU:C	1:w:382:TYR:OH	2.63	0.42
2:H:24:ASN:OD1	2:H:24:ASN:C	2.62	0.42
2:I:304:ALA:HB3	2:I:468:VAL:CG1	2.49	0.42
2:I:377:THR:CG2	2:I:378:ALA:N	2.81	0.42
2:I:422:VAL:HG23	2:I:423:ASP:N	2.34	0.42
2:J:68:ASP:OD1	2:J:69:ALA:N	2.53	0.42
2:K:43:GLN:H	2:K:43:GLN:CD	2.28	0.42
3:L:107:ARG:NH2	3:L:213:THR:O	2.53	0.42
3:N:121:LEU:CD2	3:N:200:LEU:HD21	2.50	0.42
3:O:23:TRP:CZ2	3:O:294:GLN:HA	2.54	0.42
3:O:147:ASP:N	3:O:152:GLY:O	2.50	0.42
3:V:126:ASN:O	3:V:127:SER:C	2.63	0.42
4:a:420:ASP:OD1	4:a:423:ARG:NH1	2.52	0.42
4:b:183:ASP:OD1	4:b:332:TYR:OH	2.37	0.42
4:c:345:ILE:O	4:c:347:THR:HG23	2.19	0.42
4:f:370:LYS:O	4:f:370:LYS:HG2	2.20	0.42
4:f:493:LEU:O	4:f:494:LEU:C	2.63	0.42
4:g:406:GLU:O	4:g:411:LYS:NZ	2.51	0.42
4:h:174:ASN:OD1	4:h:175:VAL:N	2.53	0.42
4:l:32:LEU:HD22	4:l:466:MET:HE2	2.02	0.42
4:m:184:THR:OG1	4:m:309:LYS:NZ	2.47	0.42
4:n:38:ILE:CD1	4:n:455:GLU:HA	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:n:143:THR:HG23	4:n:159:ASP:OD1	2.19	0.42
1:w:169:PRO:HG2	1:w:170:PHE:CE2	2.52	0.42
1:w:196:MET:HE1	1:w:214:ASP:HB2	2.01	0.42
1:w:259:PHE:CD1	1:w:259:PHE:N	2.88	0.42
1:x:358:ASN:OD1	1:x:358:ASN:N	2.53	0.42
1:2:83:PHE:HB2	1:2:95:SER:O	2.20	0.42
1:4:16:ASN:CG	1:4:17:LEU:N	2.78	0.42
1:5:114:MET:N	1:5:114:MET:CE	2.83	0.42
1:7:60:ASP:O	1:7:365:ASN:ND2	2.43	0.42
1:9:42:MET:CE	1:9:51:GLY:HA3	2.50	0.42
1:9:112:GLN:NE2	1:9:331:ASP:OD2	2.52	0.42
2:A:348:LEU:HD21	2:A:372:TRP:HZ3	1.85	0.42
2:B:95:ILE:HD12	2:B:95:ILE:N	2.35	0.42
2:B:213:VAL:O	2:B:215:VAL:HG23	2.20	0.42
2:C:135:GLY:O	2:C:138:GLU:CG	2.64	0.42
2:C:182:GLN:OE1	2:C:186:MET:HB2	2.20	0.42
2:C:341:ASN:CB	2:C:410:ASP:OD1	2.68	0.42
2:E:545:LEU:CD2	1:y:379:GLN:OE1	2.65	0.42
2:F:323:LYS:O	2:F:323:LYS:HD3	2.20	0.42
2:F:480:THR:HG22	2:F:484:ASP:OD2	2.19	0.42
2:F:499:GLN:CD	2:F:499:GLN:N	2.76	0.42
2:G:3:SER:HB3	2:G:7:HIS:NE2	2.35	0.42
2:H:35:THR:CG2	2:H:65:ARG:CD	2.98	0.42
2:K:71:ILE:CD1	2:K:509:GLN:OE1	2.68	0.42
2:K:106:LEU:HD22	2:K:106:LEU:N	2.35	0.42
3:L:120:GLN:HE21	3:L:120:GLN:C	2.26	0.42
3:M:11:GLN:OE1	3:M:11:GLN:N	2.52	0.42
3:M:200:LEU:HG	3:M:239:SER:HB2	2.00	0.42
3:O:58:GLN:OE1	3:O:62:TYR:HE2	2.02	0.42
3:S:216:GLU:OE1	3:S:216:GLU:HA	2.20	0.42
3:S:284:ASN:CA	3:S:287:ILE:HG22	2.50	0.42
3:V:11:GLN:O	3:V:12:ASN:C	2.62	0.42
4:a:321:ASP:OD1	4:a:321:ASP:N	2.52	0.42
4:a:426:LEU:O	4:a:429:VAL:HG12	2.20	0.42
4:b:13:LEU:HD23	4:b:14:THR:N	2.35	0.42
4:c:171:ASP:OD1	4:c:171:ASP:N	2.53	0.42
4:d:340:ASP:OD1	4:d:341:GLY:N	2.52	0.42
4:e:192:ALA:HB3	4:e:284:VAL:CG2	2.50	0.42
4:e:205:ALA:O	4:e:208:THR:OG1	2.36	0.42
4:j:493:LEU:O	4:j:495:ARG:NE	2.52	0.42
4:l:490:VAL:C	4:l:494:LEU:HD23	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:m:224:ASP:OD1	4:m:226:THR:N	2.50	0.42
1:w:117:THR:O	1:w:315:ILE:HG23	2.20	0.42
1:1:181:LYS:HA	1:1:198:VAL:O	2.19	0.42
1:2:205:ASP:O	1:2:206:ASN:HB2	2.19	0.42
1:2:402:LEU:HD13	1:2:402:LEU:C	2.44	0.42
1:3:87:ASP:OD1	1:3:91:SER:OG	2.28	0.42
1:3:367:ASP:HB2	2:B:1:MET:SD	2.60	0.42
1:4:99:GLN:NE2	1:4:99:GLN:C	2.78	0.42
1:4:390:LYS:HD3	1:4:391:THR:N	2.35	0.42
1:5:205:ASP:O	1:5:206:ASN:HB2	2.20	0.42
1:5:277:VAL:O	1:5:278:ALA:HB2	2.20	0.42
1:6:366:VAL:HG13	1:6:371:GLU:CD	2.45	0.42
1:8:237:ILE:HG22	1:8:238:LEU:O	2.20	0.42
1:9:67:THR:HG22	1:9:68:ASN:N	2.35	0.42
2:A:236:VAL:HG22	2:A:241:ALA:HB1	2.02	0.42
2:D:155:ASP:O	2:D:159:ASN:ND2	2.40	0.42
2:E:546:PHE:CE1	2:E:550:LEU:HD11	2.55	0.42
2:G:428:VAL:HG13	2:G:433:GLU:HB2	2.01	0.42
2:G:543:ASN:HA	1:y:380:ARG:NH2	2.34	0.42
2:H:435:ALA:C	2:H:436:MET:SD	3.03	0.42
2:I:65:ARG:NH2	2:I:200:ASP:HA	2.35	0.42
2:I:393:LEU:HD22	2:I:393:LEU:N	2.35	0.42
2:J:367:PHE:CD2	2:J:407:GLN:O	2.73	0.42
2:K:306:ALA:O	2:K:307:ASP:C	2.63	0.42
3:L:6:GLN:H	3:L:6:GLN:CD	2.28	0.42
3:M:16:ILE:HD12	3:M:301:TYR:CE2	2.55	0.42
3:O:52:LEU:HD21	3:O:275:MET:HG3	2.02	0.42
3:O:163:GLN:NE2	3:O:165:ASP:O	2.53	0.42
3:P:33:GLY:O	4:e:3:GLN:HB3	2.20	0.42
3:P:165:ASP:CG	3:P:166:SER:N	2.78	0.42
3:Q:47:SER:O	3:Q:50:VAL:HG22	2.19	0.42
3:R:33:GLY:O	3:R:34:LYS:HD3	2.20	0.42
3:T:269:LEU:HD12	3:T:269:LEU:C	2.45	0.42
3:V:292:MET:HE3	4:o:487:PRO:HG3	2.01	0.42
4:a:310:MET:HA	4:a:310:MET:CE	2.43	0.42
4:c:106:GLN:NE2	4:c:177:GLN:OE1	2.53	0.42
4:d:491:LEU:C	4:d:493:LEU:N	2.78	0.42
4:e:478:SER:OG	4:g:494:LEU:CD1	2.67	0.42
4:e:488:GLN:OE1	4:e:488:GLN:C	2.63	0.42
4:g:246:TYR:CB	4:g:259:LEU:HD11	2.50	0.42
4:k:222:LYS:HE3	4:k:275:ALA:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:k:422:LEU:HA	4:k:425:ASP:OD2	2.19	0.42
4:l:146:ILE:HG22	4:l:148:VAL:HG13	2.02	0.42
4:n:106:GLN:HB3	4:n:179:TYR:CZ	2.55	0.42
1:x:202:LYS:HD2	1:x:204:LYS:O	2.20	0.42
1:x:289:LEU:HB2	1:x:304:TYR:CD2	2.55	0.42
1:y:137:ILE:HG21	1:y:300:VAL:HG21	2.01	0.42
1:z:265:ASN:O	1:z:267:MET:CE	2.68	0.42
1:1:5:GLN:HG2	1:z:22:ASN:CB	2.50	0.41
1:1:97:ASN:OD1	1:1:98:GLY:N	2.53	0.41
1:3:18:ASP:CA	2:A:4:LEU:HD22	2.50	0.41
1:4:20:ILE:HG22	1:4:375:MET:HE2	2.02	0.41
1:4:140:PRO:HD3	1:4:312:LEU:HD11	2.02	0.41
1:6:333:VAL:HG12	1:6:334:TRP:N	2.35	0.41
1:7:164:VAL:HG13	1:7:203:THR:HA	2.02	0.41
1:7:250:THR:HG23	1:7:254:ALA:O	2.20	0.41
1:7:283:GLY:O	1:7:284:TYR:CD1	2.73	0.41
1:7:373:VAL:CG1	2:K:9:MET:SD	3.07	0.41
1:9:144:MET:O	1:9:286:PRO:HA	2.20	0.41
2:A:303:LEU:C	2:A:303:LEU:HD13	2.45	0.41
2:A:371:ASP:OD1	2:A:387:LYS:NZ	2.52	0.41
2:C:439:GLU:HG3	2:C:446:VAL:HG11	2.02	0.41
2:D:220:GLN:O	2:D:221:ASP:C	2.61	0.41
2:E:304:ALA:O	2:E:305:PHE:C	2.61	0.41
2:F:178:ASN:O	2:F:182:GLN:NE2	2.53	0.41
2:G:229:MET:O	2:G:229:MET:SD	2.78	0.41
2:G:522:TYR:OH	2:H:540:GLN:NE2	2.53	0.41
2:H:329:SER:OG	2:H:425:ASN:O	2.34	0.41
2:H:346:VAL:HG12	2:H:347:SER:N	2.35	0.41
2:I:100:ALA:HB2	3:L:38:ASN:CB	2.50	0.41
2:I:390:ASP:OD1	2:I:390:ASP:N	2.47	0.41
2:I:414:LEU:HD12	2:I:415:LYS:N	2.35	0.41
2:J:106:LEU:O	2:J:109:SER:OG	2.36	0.41
2:K:390:ASP:OD1	2:K:390:ASP:N	2.47	0.41
3:M:180:PHE:HA	3:M:200:LEU:HD22	2.01	0.41
3:M:243:VAL:O	3:M:246:VAL:HG12	2.19	0.41
3:P:305:THR:O	3:P:308:GLN:HG3	2.20	0.41
3:S:137:ALA:O	3:S:156:GLY:N	2.46	0.41
3:T:307:MET:HE3	3:T:307:MET:C	2.43	0.41
3:U:284:ASN:HB3	3:V:13:MET:SD	2.60	0.41
4:b:475:ALA:O	4:b:479:VAL:HG23	2.20	0.41
4:c:363:LYS:O	4:c:373:VAL:N	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:d:157:ASP:OD1	4:d:157:ASP:O	2.38	0.41
4:l:94:GLU:HG2	4:m:59:LYS:HB3	2.02	0.41
4:n:21:SER:OG	4:n:473:GLN:NE2	2.52	0.41
4:o:492:SER:O	4:o:495:ARG:NH1	2.53	0.41
1:x:115:GLN:N	1:x:115:GLN:CD	2.78	0.41
1:z:116:LEU:O	1:z:136:PRO:HA	2.20	0.41
1:z:205:ASP:O	1:z:206:ASN:HB2	2.20	0.41
1:1:40:ALA:O	1:1:53:LYS:N	2.52	0.41
1:1:78:SER:O	1:1:79:GLN:HB3	2.19	0.41
1:2:191:GLY:HA3	1:2:286:PRO:HD3	2.02	0.41
1:3:399:LEU:HA	1:3:402:LEU:CG	2.50	0.41
1:4:23:ASN:HB2	1:4:371:GLU:OE1	2.20	0.41
1:4:382:TYR:CE2	1:5:395:ILE:HG12	2.56	0.41
1:5:42:MET:SD	1:5:47:LYS:HE2	2.60	0.41
1:5:237:ILE:HD13	1:5:267:MET:HE3	2.01	0.41
1:5:379:GLN:OE1	1:7:395:ILE:HD11	2.20	0.41
1:7:293:GLN:NE2	2:J:191:ALA:HB1	2.35	0.41
1:8:39:PHE:CD2	1:8:54:VAL:HG22	2.55	0.41
1:8:42:MET:HE2	1:8:51:GLY:HA3	2.02	0.41
2:A:7:HIS:ND1	2:A:8:ALA:N	2.68	0.41
2:A:47:THR:O	2:A:53:TRP:HA	2.20	0.41
2:A:65:ARG:CZ	2:A:199:LEU:HD23	2.50	0.41
2:D:75:LEU:O	2:D:75:LEU:HD12	2.20	0.41
2:D:179:LEU:O	2:D:183:ILE:HG22	2.20	0.41
2:D:221:ASP:N	2:D:221:ASP:OD1	2.52	0.41
2:D:531:TYR:O	2:D:535:ASN:OD1	2.37	0.41
2:E:352:VAL:HG13	2:E:358:VAL:CG2	2.50	0.41
2:E:362:ASP:O	2:E:377:THR:OG1	2.33	0.41
2:F:70:PHE:CE1	2:G:157:GLN:HB2	2.55	0.41
2:G:29:TYR:CG	2:G:518:LEU:HD11	2.55	0.41
2:G:353:VAL:HG23	2:G:354:ASP:N	2.34	0.41
2:I:508:LYS:HG2	2:I:509:GLN:N	2.36	0.41
2:J:185:ARG:C	2:J:186:MET:HE3	2.44	0.41
2:J:511:GLN:O	2:J:515:GLY:N	2.36	0.41
3:L:24:MET:SD	3:V:8:MET:HE2	2.60	0.41
3:N:226:ALA:CA	3:N:229:ILE:HG22	2.50	0.41
3:P:35:ARG:HG3	3:P:280:ASP:C	2.45	0.41
3:Q:92:GLU:OE1	3:Q:93:LYS:HE3	2.20	0.41
3:S:75:LEU:O	3:S:79:VAL:HG22	2.20	0.41
4:a:53:ARG:HB2	4:a:53:ARG:NH1	2.35	0.41
4:d:486:VAL:HB	4:d:487:PRO:HD3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:194:THR:CG2	4:e:284:VAL:CG1	2.92	0.41
4:i:349:LYS:O	4:i:387:GLU:OE1	2.38	0.41
4:k:105:SER:N	4:k:108:ASP:OD2	2.53	0.41
4:k:481:ALA:O	4:k:485:GLN:OE1	2.39	0.41
4:l:485:GLN:O	4:l:486:VAL:C	2.63	0.41
4:m:182:SER:O	4:m:310:MET:SD	2.78	0.41
4:m:203:PHE:CE1	4:m:207:ALA:HB2	2.55	0.41
1:w:169:PRO:CG	1:w:170:PHE:CE2	3.04	0.41
1:w:403:ARG:C	1:w:403:ARG:HD2	2.45	0.41
1:x:117:THR:O	1:x:315:ILE:HD12	2.20	0.41
1:y:86:VAL:HG13	1:y:117:THR:HG21	2.01	0.41
1:y:119:TYR:CD2	1:y:129:GLN:O	2.73	0.41
1:y:195:ASP:C	1:y:195:ASP:OD1	2.63	0.41
1:z:151:THR:OG1	1:z:282:ASN:ND2	2.53	0.41
1:z:375:MET:SD	1:z:379:GLN:HG2	2.57	0.41
1:1:14:ALA:N	1:1:382:TYR:HE1	2.18	0.41
1:1:42:MET:CG	1:1:50:LEU:HB2	2.49	0.41
1:1:86:VAL:CG1	1:1:117:THR:HG21	2.50	0.41
1:2:162:ASP:HB3	1:2:179:ASN:HB3	2.01	0.41
1:3:20:ILE:HD11	1:3:371:GLU:CB	2.51	0.41
1:4:103:ASP:C	1:4:103:ASP:OD1	2.63	0.41
1:5:52:VAL:O	1:5:53:LYS:C	2.62	0.41
1:6:30:TYR:CD2	1:6:361:LEU:HB3	2.55	0.41
1:7:10:LEU:HD22	1:7:382:TYR:CD1	2.55	0.41
1:7:96:ARG:NH1	1:7:362:GLU:OE2	2.53	0.41
1:7:121:ALA:HB1	1:7:312:LEU:HB2	2.02	0.41
1:8:195:ASP:CG	1:8:216:SER:OG	2.63	0.41
2:A:310:ASN:O	2:A:311:ALA:C	2.63	0.41
2:A:490:SER:O	2:A:494:THR:HG23	2.20	0.41
2:B:300:GLN:HG3	2:B:360:ALA:N	2.35	0.41
2:C:374:VAL:HG23	2:C:385:ALA:HB2	2.02	0.41
2:D:31:VAL:HG12	2:D:32:ALA:N	2.35	0.41
2:D:57:GLY:O	2:D:58:VAL:HG23	2.20	0.41
2:E:345:THR:OG1	2:E:346:VAL:N	2.52	0.41
2:F:276:ASN:HA	2:F:281:GLY:HA3	2.02	0.41
2:G:39:THR:HG22	2:G:40:ILE:N	2.35	0.41
2:G:330:ILE:HD11	2:G:420:ALA:HB1	2.02	0.41
2:H:186:MET:O	2:H:189:VAL:HG12	2.20	0.41
2:H:387:LYS:HA	2:H:393:LEU:HA	2.01	0.41
2:H:519:ASP:HA	3:V:314:GLN:NE2	2.35	0.41
2:I:309:PHE:CE1	2:I:313:HIS:HB2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:445:ASP:OD1	2:I:445:ASP:N	2.52	0.41
2:J:499:GLN:NE2	2:J:499:GLN:HA	2.36	0.41
2:J:546:PHE:O	2:J:550:LEU:HD13	2.21	0.41
3:L:118:ARG:HG2	3:L:118:ARG:HH11	1.86	0.41
3:Q:113:ASP:OD1	3:Q:113:ASP:N	2.51	0.41
3:R:204:LEU:O	3:R:208:ILE:HG12	2.20	0.41
3:S:170:MET:HE2	3:S:256:GLU:OE1	2.20	0.41
3:S:240:LEU:O	3:S:243:VAL:HG12	2.19	0.41
3:U:86:ALA:HB3	3:U:121:LEU:HD21	2.00	0.41
3:V:9:TYR:CD1	3:V:10:GLU:N	2.88	0.41
3:V:273:LEU:CD1	4:n:9:SER:OG	2.68	0.41
4:c:325:ALA:HB1	4:c:333:TYR:O	2.21	0.41
4:e:170:LEU:N	4:e:170:LEU:CD1	2.84	0.41
4:e:194:THR:HG22	4:e:284:VAL:HG13	1.98	0.41
4:g:489:ASN:OD1	4:g:489:ASN:C	2.63	0.41
4:h:198:LEU:CD2	4:h:250:VAL:HG11	2.50	0.41
4:j:331:ASP:OD2	4:j:363:LYS:NZ	2.51	0.41
4:j:440:LEU:O	4:j:444:VAL:HG23	2.21	0.41
4:n:491:LEU:HD12	4:n:491:LEU:C	2.45	0.41
1:w:200:PHE:CD2	1:w:210:VAL:HG22	2.55	0.41
1:x:205:ASP:O	1:x:206:ASN:CB	2.68	0.41
1:y:5:GLN:OE1	1:y:51:GLY:HA2	2.20	0.41
1:y:23:ASN:ND2	1:y:23:ASN:N	2.67	0.41
1:1:246:ILE:HG22	1:1:247:THR:N	2.35	0.41
1:2:374:ASN:O	1:2:377:VAL:HG22	2.20	0.41
1:3:64:GLY:HA2	2:B:51:GLY:HA3	2.01	0.41
1:4:14:ALA:HA	1:4:17:LEU:HD12	2.00	0.41
1:5:43:PHE:O	1:5:44:ALA:HB3	2.20	0.41
1:5:170:PHE:CD2	1:5:211:TYR:CG	3.08	0.41
1:6:29:THR:HG21	1:6:332:ASN:CB	2.50	0.41
1:6:35:GLY:HA2	1:6:58:THR:O	2.20	0.41
1:8:151:THR:N	1:8:282:ASN:OD1	2.51	0.41
1:8:192:ASN:OD1	1:9:270:ASN:N	2.53	0.41
1:9:381:ASN:O	1:9:385:ASN:ND2	2.52	0.41
2:A:183:ILE:HD12	2:A:202:ARG:HD3	2.01	0.41
2:A:229:MET:HE1	2:A:275:LEU:HA	2.02	0.41
2:A:532:TYR:OH	2:K:549:LEU:HG	2.20	0.41
2:B:74:GLN:CD	2:C:153:ASP:OD2	2.63	0.41
2:B:205:LEU:HD22	2:B:205:LEU:N	2.35	0.41
2:C:150:TYR:C	2:C:150:TYR:CD1	2.98	0.41
2:D:117:LEU:O	2:D:121:VAL:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:207:SER:O	2:D:210:ASN:HB3	2.20	0.41
2:E:220:GLN:N	2:E:224:THR:O	2.53	0.41
2:F:158:VAL:HG11	2:F:287:ARG:HB2	2.02	0.41
2:F:215:VAL:HG12	2:F:216:GLU:O	2.19	0.41
2:F:382:THR:C	2:F:383:PHE:CD1	2.98	0.41
2:G:84:GLY:CA	2:G:278:GLY:O	2.68	0.41
2:G:167:ALA:HA	2:G:170:ASN:OD1	2.20	0.41
2:G:550:LEU:HD12	1:y:387:GLN:CD	2.46	0.41
2:H:157:GLN:NE2	3:U:51:VAL:HG11	2.36	0.41
2:I:411:SER:C	2:I:412:PHE:CG	2.98	0.41
2:J:19:LEU:HD22	3:L:307:MET:CE	2.50	0.41
3:L:162:GLN:OE1	3:L:172:ILE:HD13	2.20	0.41
3:N:281:VAL:HG11	3:N:283:TRP:CE3	2.55	0.41
3:N:282:ASP:O	3:N:284:ASN:N	2.53	0.41
3:O:7:MET:SD	3:O:8:MET:HE1	2.61	0.41
3:O:199:ASN:OD1	3:O:201:PHE:N	2.49	0.41
3:P:49:ALA:CB	3:P:275:MET:HE1	2.49	0.41
3:P:116:GLY:O	3:P:119:ASP:OD1	2.38	0.41
3:P:258:SER:O	3:P:261:ASP:OD1	2.39	0.41
3:Q:280:ASP:OD2	4:f:3:GLN:CA	2.51	0.41
3:Q:297:LEU:HD11	3:Q:301:TYR:HE2	1.85	0.41
3:T:221:GLU:HA	3:T:221:GLU:OE2	2.21	0.41
3:U:223:GLU:OE1	3:U:224:LYS:N	2.52	0.41
3:V:219:ASN:O	3:V:220:VAL:CB	2.68	0.41
4:b:25:LEU:HB2	4:b:469:ALA:HB1	2.03	0.41
4:c:453:ARG:HG3	4:c:453:ARG:HH11	1.84	0.41
4:f:64:ALA:HB1	4:f:148:VAL:O	2.20	0.41
4:f:331:ASP:OD2	4:f:363:LYS:NZ	2.43	0.41
4:g:296:LEU:HD11	4:g:345:ILE:HD12	2.02	0.41
4:h:375:SER:O	4:h:376:ILE:HD13	2.20	0.41
4:i:225:ASP:OD1	4:i:225:ASP:C	2.63	0.41
4:k:13:LEU:HD21	4:l:30:GLU:HG3	2.00	0.41
4:k:310:MET:HE2	4:k:332:TYR:CE1	2.55	0.41
4:n:310:MET:N	4:n:310:MET:CE	2.75	0.41
1:y:23:ASN:N	1:y:23:ASN:HD22	2.18	0.41
1:z:375:MET:SD	1:z:375:MET:O	2.79	0.41
1:1:43:PHE:CD1	1:1:43:PHE:C	2.98	0.41
1:2:277:VAL:O	1:2:277:VAL:CG2	2.66	0.41
1:3:118:GLY:HA3	1:3:314:GLN:O	2.21	0.41
1:3:155:GLN:N	1:3:278:ALA:HB3	2.35	0.41
1:3:307:GLU:OE1	1:3:307:GLU:O	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:3:367:ASP:O	1:3:371:GLU:HG2	2.19	0.41
1:5:51:GLY:C	1:5:53:LYS:H	2.27	0.41
1:5:199:TYR:O	1:5:210:VAL:HA	2.21	0.41
1:5:387:GLN:CD	1:5:387:GLN:C	2.89	0.41
1:7:14:ALA:HA	1:7:17:LEU:HD12	2.02	0.41
1:8:71:ARG:HG2	1:8:74:ASP:OD2	2.20	0.41
1:8:267:MET:SD	1:8:268:GLN:N	2.94	0.41
1:8:402:LEU:HD23	1:8:402:LEU:C	2.46	0.41
2:A:7:HIS:HB2	2:A:56:ASN:C	2.45	0.41
2:A:68:ASP:OD2	2:A:71:ILE:HG22	2.20	0.41
2:A:310:ASN:HD22	2:A:310:ASN:H	1.63	0.41
2:B:181:ASP:O	2:B:185:ARG:HG3	2.21	0.41
2:D:25:ASN:HD21	2:D:516:VAL:CG2	2.33	0.41
2:E:388:ASP:CG	2:E:390:ASP:HB3	2.45	0.41
2:E:414:LEU:HD23	2:E:414:LEU:C	2.46	0.41
2:E:472:LYS:NZ	2:E:480:THR:HG21	2.36	0.41
2:F:7:HIS:NE2	2:G:24:ASN:OD1	2.53	0.41
2:H:58:VAL:HG11	2:I:27:ASN:HB3	2.02	0.41
2:H:336:TYR:CE1	2:H:415:LYS:HG3	2.56	0.41
2:H:540:GLN:HA	2:H:543:ASN:ND2	2.35	0.41
2:I:92:MET:CE	2:I:488:LYS:HB2	2.50	0.41
2:I:312:GLN:CB	2:I:462:LEU:HD11	2.51	0.41
2:I:343:ASP:O	2:I:344:LYS:HB3	2.20	0.41
2:J:36:ARG:NH1	2:J:515:GLY:O	2.53	0.41
2:J:549:LEU:HD22	2:K:532:TYR:OH	2.19	0.41
2:K:92:MET:HE1	2:K:488:LYS:CE	2.50	0.41
2:K:140:LEU:HD23	2:K:140:LEU:C	2.46	0.41
3:M:44:ILE:H	3:M:44:ILE:HD12	1.85	0.41
3:M:307:MET:C	3:M:307:MET:SD	3.03	0.41
3:N:48:GLN:OE1	3:N:48:GLN:CA	2.68	0.41
3:N:114:LEU:HB3	3:N:208:ILE:CD1	2.50	0.41
3:O:26:LEU:HD22	3:O:290:TYR:HB2	2.01	0.41
3:O:129:ASP:OD1	3:O:133:ARG:N	2.53	0.41
3:P:54:GLN:C	3:P:54:GLN:CD	2.88	0.41
3:R:249:GLU:O	3:R:252:THR:HG22	2.20	0.41
3:R:304:PHE:HA	3:R:307:MET:HG2	2.01	0.41
3:T:9:TYR:O	3:T:12:ASN:OD1	2.38	0.41
3:V:297:LEU:HD23	3:V:297:LEU:C	2.45	0.41
3:V:315:LEU:C	3:V:315:LEU:CD2	2.93	0.41
4:a:168:LEU:HB3	4:a:170:LEU:HD23	2.03	0.41
4:c:350:TYR:HB2	4:c:389:HIS:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:f:141:ASP:OD1	4:f:162:GLN:HB2	2.19	0.41
4:g:30:GLU:OE2	4:g:39:ASN:ND2	2.53	0.41
4:j:131:GLN:C	4:j:131:GLN:CD	2.88	0.41
4:k:5:ILE:HD11	4:k:490:VAL:HB	2.01	0.41
4:k:350:TYR:CE2	4:k:352:ALA:HA	2.55	0.41
4:l:32:LEU:HD22	4:l:466:MET:HE1	2.01	0.41
4:n:57:ASN:C	4:n:61:LEU:CD2	2.93	0.41
4:o:309:LYS:O	4:o:310:MET:HE2	2.19	0.41
1:w:154:MET:O	1:w:263:PHE:HA	2.21	0.41
1:x:233:ASN:ND2	1:x:239:GLU:OE1	2.49	0.41
1:z:30:TYR:CE1	1:z:361:LEU:HB2	2.56	0.41
1:z:147:LYS:HB3	1:z:284:TYR:CZ	2.55	0.41
1:3:331:ASP:O	1:3:332:ASN:OD1	2.38	0.41
1:5:110:ASN:OD1	1:5:113:GLY:N	2.40	0.41
1:5:375:MET:HE1	1:7:388:THR:HG23	2.02	0.41
1:6:36:THR:HG22	1:6:37:ALA:N	2.36	0.41
1:6:76:ALA:O	1:6:356:LEU:HD13	2.20	0.41
1:6:114:MET:N	1:6:114:MET:SD	2.93	0.41
1:7:146:ALA:HB1	1:7:191:GLY:HA3	2.02	0.41
1:7:246:ILE:HG22	1:7:247:THR:N	2.36	0.41
1:8:77:ILE:H	1:8:77:ILE:HD12	1.86	0.41
1:8:304:TYR:CE1	1:8:310:GLN:HB2	2.55	0.41
2:A:368:ASP:OD1	2:A:369:GLY:N	2.53	0.41
2:A:510:GLN:OE1	2:A:510:GLN:O	2.39	0.41
2:A:550:LEU:O	2:A:551:ASN:C	2.63	0.41
2:B:165:SER:HB3	2:B:280:LEU:HD21	2.02	0.41
2:B:419:ASN:O	2:B:423:ASP:OD1	2.38	0.41
2:C:155:ASP:O	2:C:159:ASN:ND2	2.53	0.41
2:C:407:GLN:HG3	2:C:408:LYS:O	2.21	0.41
2:D:48:LEU:HB2	2:D:54:ILE:HB	2.01	0.41
2:D:330:ILE:HD12	2:D:330:ILE:HA	1.94	0.41
2:E:229:MET:SD	2:E:231:ASN:CG	3.01	0.41
2:H:30:ASN:OD1	3:U:292:MET:SD	2.79	0.41
2:I:306:ALA:HB1	2:I:328:PHE:HB3	2.03	0.41
2:I:544:ALA:O	2:I:547:ASP:OD1	2.39	0.41
2:I:547:ASP:OD1	2:I:548:ALA:N	2.54	0.41
2:J:300:GLN:C	2:J:300:GLN:OE1	2.64	0.41
2:K:408:LYS:O	2:K:409:ASN:HB2	2.19	0.41
3:M:121:LEU:HA	3:M:124:LEU:HD23	2.02	0.41
3:M:195:ASP:OD1	3:M:196:SER:N	2.53	0.41
3:P:295:ALA:HB1	4:f:491:LEU:HD13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:276:SER:HB3	4:f:3:GLN:CG	2.39	0.41
3:R:41:ASP:C	3:R:42:ASP:OD1	2.63	0.41
3:R:200:LEU:O	3:R:203:MET:HG2	2.20	0.41
3:S:12:ASN:O	3:S:16:ILE:HG23	2.21	0.41
3:V:12:ASN:O	3:V:16:ILE:HG22	2.20	0.41
4:b:281:ASN:N	4:b:281:ASN:OD1	2.51	0.41
4:c:30:GLU:OE1	4:c:30:GLU:C	2.64	0.41
4:c:37:ARG:NH2	4:c:454:ILE:O	2.48	0.41
4:c:406:GLU:N	4:c:406:GLU:CD	2.77	0.41
4:e:25:LEU:HB2	4:e:469:ALA:HB1	2.03	0.41
4:h:81:ALA:O	4:h:84:GLU:OE1	2.37	0.41
4:m:354:ASP:OD1	4:m:354:ASP:C	2.64	0.41
4:m:364:LEU:HD23	4:m:364:LEU:C	2.46	0.41
4:n:180:LYS:HB3	4:n:180:LYS:NZ	2.32	0.41
4:n:310:MET:HE1	4:n:325:ALA:N	2.35	0.41
1:w:90:GLY:O	1:w:91:SER:C	2.64	0.41
1:w:324:GLU:OE1	1:w:324:GLU:N	2.41	0.41
1:w:372:LEU:O	1:w:375:MET:HG2	2.21	0.41
1:x:71:ARG:O	1:x:359:GLY:HA2	2.19	0.41
1:z:155:GLN:N	1:z:278:ALA:HB3	2.35	0.41
1:z:207:GLU:C	1:z:208:TRP:CD1	2.98	0.41
1:z:261:LEU:HD11	1:z:263:PHE:CZ	2.55	0.41
1:2:207:GLU:HA	1:2:231:LYS:HA	2.03	0.41
1:4:10:LEU:HD13	1:4:382:TYR:HD1	1.85	0.41
1:7:205:ASP:O	1:7:206:ASN:HB2	2.21	0.41
1:8:275:ASN:OD1	1:8:276:ILE:N	2.53	0.41
1:9:115:GLN:NE2	1:9:137:ILE:O	2.40	0.41
1:9:211:TYR:CD2	1:9:226:ALA:HA	2.55	0.41
2:A:84:GLY:HA3	2:A:88:ARG:HH21	1.84	0.41
2:A:140:LEU:HD21	2:A:305:PHE:CE2	2.55	0.41
2:C:473:THR:CG2	2:C:474:PHE:H	2.31	0.41
2:E:70:PHE:CE1	2:E:71:ILE:HG13	2.56	0.41
2:E:156:LYS:HD3	2:E:156:LYS:O	2.20	0.41
2:F:229:MET:HE3	2:F:275:LEU:HD23	2.03	0.41
2:F:511:GLN:HB3	3:T:7:MET:CE	2.51	0.41
2:H:517:ASN:HB2	3:V:3:ILE:HG13	2.03	0.41
2:I:358:VAL:HA	2:I:396:ASP:HB3	2.03	0.41
2:I:482:VAL:O	2:I:485:VAL:HG22	2.21	0.41
2:I:529:GLN:O	2:I:533:LEU:HD23	2.20	0.41
2:J:124:ALA:HA	2:J:436:MET:CE	2.50	0.41
2:J:367:PHE:O	2:J:409:ASN:N	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:172:TYR:O	2:K:176:ILE:CD1	2.69	0.41
3:L:48:GLN:OE1	3:L:48:GLN:HA	2.20	0.41
3:O:138:GLY:HA2	3:O:174:HIS:O	2.20	0.41
3:Q:302:LYS:CE	3:R:313:PHE:HZ	2.33	0.41
3:T:23:TRP:CH2	4:i:486:VAL:HG22	2.56	0.41
4:b:426:LEU:O	4:b:430:GLN:HG3	2.21	0.41
4:d:70:ASP:N	4:d:70:ASP:OD1	2.52	0.41
4:d:383:ALA:O	4:d:386:ALA:N	2.54	0.41
4:f:321:ASP:OD1	4:f:321:ASP:N	2.53	0.41
4:g:71:GLY:O	4:g:74:ILE:HG22	2.21	0.41
4:i:224:ASP:HB2	4:i:275:ALA:HB2	2.03	0.41
4:l:307:VAL:HG22	4:l:326:VAL:HG22	2.01	0.41
4:o:37:ARG:NH2	4:o:454:ILE:O	2.52	0.41
4:o:417:ALA:HA	4:o:420:ASP:OD1	2.20	0.41
1:w:285:LYS:O	1:w:306:ASN:ND2	2.53	0.41
1:w:366:VAL:HG13	1:w:371:GLU:CD	2.46	0.41
1:x:217:ASP:OD2	1:x:250:THR:N	2.50	0.41
1:y:195:ASP:OD1	1:y:196:MET:N	2.54	0.41
1:1:188:ASP:OD2	1:1:192:ASN:HB2	2.21	0.41
1:2:170:PHE:CE2	1:2:199:TYR:CD1	3.09	0.41
1:2:290:VAL:O	1:2:291:SER:OG	2.26	0.41
1:3:62:THR:HG22	1:3:63:ASP:H	1.86	0.41
1:3:181:LYS:HA	1:3:198:VAL:O	2.20	0.41
1:7:133:ASN:OD1	1:7:133:ASN:C	2.64	0.41
1:7:328:SER:H	2:I:46:SER:CB	2.33	0.41
1:8:170:PHE:CE1	1:8:199:TYR:CD2	3.08	0.41
1:9:6:ALA:HB1	1:9:389:ILE:HG13	2.02	0.41
1:9:10:LEU:HB2	1:9:385:ASN:HB3	2.02	0.41
2:A:527:ARG:NH2	2:B:6:ASN:HA	2.36	0.41
2:B:165:SER:HB2	2:B:280:LEU:HD11	2.03	0.41
2:D:58:VAL:CG1	2:D:59:TYR:N	2.84	0.41
2:D:337:SER:HA	2:D:412:PHE:CD2	2.56	0.41
2:E:398:LEU:HD11	2:E:416:PRO:HB3	2.02	0.41
2:F:247:VAL:CG2	2:F:259:ALA:HB2	2.50	0.41
2:G:268:ILE:HD12	2:G:268:ILE:N	2.35	0.41
2:G:533:LEU:C	2:G:533:LEU:CD2	2.93	0.41
2:I:94:LYS:O	2:I:97:ASN:OD1	2.38	0.41
2:J:117:LEU:C	2:J:117:LEU:HD13	2.45	0.41
2:K:41:LEU:N	2:K:41:LEU:HD22	2.35	0.41
3:O:163:GLN:CD	3:O:165:ASP:O	2.64	0.41
3:O:246:VAL:O	3:O:250:LEU:HG	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:308:GLN:HE22	3:O:312:LEU:CG	2.34	0.41
3:S:317:ARG:C	3:S:317:ARG:CD	2.94	0.41
3:V:23:TRP:HZ3	4:l:486:VAL:CG2	2.33	0.41
3:V:168:ARG:HH21	3:V:256:GLU:CD	2.29	0.41
4:a:5:ILE:O	4:a:6:ASN:HB2	2.19	0.41
4:a:387:GLU:OE1	4:a:387:GLU:HA	2.20	0.41
4:b:204:LYS:HA	4:b:207:ALA:HB3	2.03	0.41
4:c:472:LEU:HD23	4:c:472:LEU:O	2.21	0.41
4:d:15:GLN:O	4:d:19:ASN:OD1	2.38	0.41
4:f:4:VAL:O	4:f:8:ASN:CB	2.69	0.41
4:f:203:PHE:CE2	4:f:217:ILE:CG1	3.03	0.41
4:f:343:ILE:O	4:f:343:ILE:CG2	2.68	0.41
4:g:374:VAL:HG22	4:g:375:SER:N	2.36	0.41
4:h:137:VAL:HG23	4:h:138:LEU:HD13	2.03	0.41
4:j:191:TYR:HA	4:j:285:ALA:HA	2.02	0.41
4:k:331:ASP:OD1	4:k:363:LYS:NZ	2.52	0.41
4:l:490:VAL:O	4:l:494:LEU:CD2	2.69	0.41
4:m:406:GLU:O	4:m:406:GLU:CD	2.64	0.41
4:n:326:VAL:N	4:n:333:TYR:O	2.50	0.41
4:n:495:ARG:NE	4:n:495:ARG:CA	2.83	0.41
4:o:147:GLN:NE2	4:o:149:GLY:O	2.46	0.41
1:w:150:THR:OG1	1:w:282:ASN:ND2	2.53	0.41
1:x:368:LEU:HA	1:x:371:GLU:HG2	2.01	0.41
1:z:170:PHE:CG	1:z:171:SER:N	2.88	0.41
1:1:1:MET:O	1:1:2:SER:C	2.62	0.41
1:1:69:THR:CG2	1:1:74:ASP:OD2	2.69	0.41
1:3:322:ASN:O	1:3:340:SER:HA	2.21	0.41
1:4:25:ALA:HB1	1:5:52:VAL:HG11	2.01	0.41
1:4:34:SER:OG	1:4:366:VAL:HG22	2.21	0.41
1:4:122:THR:O	1:4:127:THR:N	2.54	0.41
1:5:192:ASN:CB	1:6:270:ASN:HB3	2.51	0.41
1:5:261:LEU:HD23	1:5:261:LEU:N	2.36	0.41
1:5:290:VAL:HG21	1:7:351:GLY:C	2.45	0.41
1:5:370:LYS:O	1:5:373:VAL:HG22	2.20	0.41
1:6:75:VAL:CG1	1:6:356:LEU:HD12	2.50	0.41
1:6:304:TYR:O	1:6:307:GLU:N	2.51	0.41
1:7:30:TYR:CE2	1:7:361:LEU:CB	3.03	0.41
1:7:135:ALA:HB1	1:7:136:PRO:HD2	2.03	0.41
1:7:283:GLY:C	1:7:284:TYR:CG	2.99	0.41
1:7:328:SER:CA	2:I:46:SER:HA	2.50	0.41
1:7:348:ALA:CB	1:7:355:LYS:HA	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:9:30:TYR:HD1	1:9:97:ASN:OD1	2.03	0.41
1:9:31:GLY:N	1:9:362:GLU:O	2.50	0.41
1:9:76:ALA:HB3	1:9:357:THR:HG23	2.03	0.41
1:9:101:LYS:NZ	1:9:111:MET:O	2.42	0.41
1:9:165:PRO:CG	1:9:201:VAL:HG13	2.51	0.41
1:9:194:HIS:CD2	1:9:194:HIS:N	2.88	0.41
2:A:351:LYS:HE2	2:A:352:VAL:H	1.86	0.41
2:A:535:ASN:HA	2:A:538:VAL:HG12	2.03	0.41
2:B:540:GLN:HA	2:B:543:ASN:ND2	2.35	0.41
2:C:72:THR:O	2:C:75:LEU:HB3	2.20	0.41
2:C:306:ALA:O	2:C:309:PHE:HB3	2.20	0.41
2:C:423:ASP:O	2:C:424:MET:C	2.63	0.41
2:D:147:THR:O	2:D:151:LEU:HD13	2.20	0.41
2:E:290:ASP:O	2:E:294:THR:HG22	2.19	0.41
2:E:307:ASP:HB2	2:E:355:SER:HB2	2.02	0.41
2:E:388:ASP:C	2:E:390:ASP:H	2.29	0.41
2:F:118:GLN:O	2:F:121:VAL:N	2.54	0.41
2:F:312:GLN:NE2	2:F:455:ASN:OD1	2.54	0.41
2:F:395:ILE:HG13	2:F:400:VAL:HG21	2.03	0.41
2:F:499:GLN:OE1	2:F:499:GLN:CA	2.69	0.41
2:F:532:TYR:O	2:F:535:ASN:OD1	2.39	0.41
2:G:484:ASP:O	2:G:488:LYS:HG2	2.21	0.41
2:G:512:SER:O	3:U:1:MET:SD	2.78	0.41
2:H:9:MET:HA	2:H:9:MET:CE	2.43	0.41
2:H:35:THR:CG2	2:H:65:ARG:HB2	2.51	0.41
2:H:298:LEU:HD23	2:H:298:LEU:C	2.45	0.41
2:H:365:ILE:CG2	2:H:372:TRP:CE3	3.04	0.41
2:H:423:ASP:O	2:H:425:ASN:OD1	2.39	0.41
2:H:463:GLN:HG3	2:H:464:ASN:N	2.35	0.41
2:I:70:PHE:CD2	2:I:71:ILE:HG13	2.55	0.41
2:I:183:ILE:HG12	2:I:202:ARG:NH1	2.36	0.41
2:J:70:PHE:HB2	2:K:157:GLN:HB3	2.02	0.41
2:J:126:ASP:OD1	4:o:53:ARG:NH2	2.53	0.41
2:J:212:ILE:C	2:J:277:THR:HB	2.45	0.41
2:J:258:VAL:CG2	2:J:270:ILE:O	2.67	0.41
2:J:303:LEU:C	2:J:303:LEU:CD2	2.93	0.41
2:J:379:ASP:O	2:J:380:ASN:OD1	2.39	0.41
2:J:395:ILE:O	2:J:397:GLY:N	2.44	0.41
2:K:467:VAL:CG1	2:K:468:VAL:N	2.84	0.41
3:L:22:GLU:OE2	3:L:23:TRP:N	2.54	0.41
3:L:122:MET:O	3:L:125:ALA:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:263:LEU:C	3:L:263:LEU:HD23	2.46	0.41
3:M:73:VAL:CA	3:M:76:GLU:OE2	2.68	0.41
3:M:287:ILE:HG23	3:M:288:SER:N	2.36	0.41
3:O:44:ILE:N	3:O:44:ILE:HD12	2.35	0.41
3:O:314:GLN:O	3:O:314:GLN:OE1	2.39	0.41
3:P:58:GLN:OE1	3:P:58:GLN:O	2.38	0.41
3:P:170:MET:HE3	3:P:253:GLN:HG2	2.02	0.41
3:R:219:ASN:O	3:R:220:VAL:CB	2.68	0.41
3:R:279:VAL:HG13	3:R:280:ASP:OD1	2.21	0.41
3:S:274:GLN:O	3:S:278:LEU:HD22	2.19	0.41
3:T:283:TRP:CE2	4:k:5:ILE:HB	2.56	0.41
3:T:287:ILE:HD11	4:k:494:LEU:CD2	2.51	0.41
3:U:163:GLN:HA	3:U:168:ARG:O	2.20	0.41
3:U:283:TRP:HA	3:U:286:VAL:HG12	2.03	0.41
3:V:161:THR:HG22	3:V:171:VAL:HG22	2.03	0.41
3:V:310:MET:SD	3:V:313:PHE:HE2	2.44	0.41
4:b:236:VAL:HG21	4:b:242:LYS:CB	2.50	0.41
4:c:352:ALA:HB3	4:c:358:LYS:HG2	2.03	0.41
4:d:65:SER:O	4:d:69:ASN:ND2	2.53	0.41
4:e:180:LYS:HB3	4:e:180:LYS:HE2	1.96	0.41
4:e:184:THR:O	4:e:309:LYS:N	2.42	0.41
4:e:310:MET:N	4:e:310:MET:SD	2.94	0.41
4:f:10:LEU:HD11	4:f:483:ALA:CB	2.51	0.41
4:f:203:PHE:O	4:f:207:ALA:N	2.48	0.41
4:h:48:GLN:CD	4:h:49:ALA:N	2.79	0.41
4:h:406:GLU:OE1	4:h:406:GLU:CA	2.69	0.41
4:i:171:ASP:OD1	4:i:171:ASP:N	2.53	0.41
4:i:223:PHE:O	4:i:275:ALA:HA	2.21	0.41
4:i:387:GLU:OE1	4:i:387:GLU:HA	2.21	0.41
4:j:242:LYS:O	4:j:246:TYR:OH	2.30	0.41
4:j:250:VAL:HG13	4:j:256:GLU:O	2.20	0.41
4:k:280:LYS:HD3	4:k:280:LYS:N	2.35	0.41
4:k:495:ARG:HB2	4:k:495:ARG:CZ	2.51	0.41
4:l:187:THR:HG22	4:l:189:THR:HG23	2.03	0.41
4:m:495:ARG:CZ	4:m:495:ARG:HA	2.51	0.41
4:n:368:ASP:OD1	4:n:368:ASP:N	2.51	0.41
4:o:148:VAL:HG22	4:o:148:VAL:O	2.21	0.41
4:o:191:TYR:HA	4:o:285:ALA:HA	2.02	0.41
4:o:361:LEU:H	4:o:361:LEU:CD2	2.34	0.41
1:w:99:GLN:OE1	1:w:99:GLN:C	2.64	0.41
1:w:342:VAL:O	1:w:344:LEU:HD12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:x:103:ASP:OD1	1:x:107:ASN:N	2.51	0.41
1:x:157:ASN:HA	1:x:267:MET:O	2.20	0.41
1:y:23:ASN:HB2	1:y:371:GLU:OE2	2.21	0.41
1:y:78:SER:O	1:y:79:GLN:HB2	2.21	0.41
1:z:154:MET:SD	1:z:276:ILE:HG23	2.61	0.41
1:1:182:GLY:N	1:1:198:VAL:O	2.39	0.41
1:2:104:GLU:C	1:2:106:ARG:H	2.29	0.41
1:3:5:GLN:OE1	1:3:5:GLN:N	2.53	0.41
1:3:144:MET:HE1	1:3:284:TYR:CD1	2.56	0.41
1:5:109:VAL:HB	1:5:113:GLY:C	2.47	0.41
1:5:174:ASP:C	1:5:176:ASP:H	2.29	0.41
1:6:30:TYR:N	1:6:30:TYR:CD1	2.89	0.41
1:6:71:ARG:NH2	1:6:74:ASP:OD1	2.51	0.41
1:8:170:PHE:CD1	1:8:170:PHE:C	2.98	0.41
1:8:372:LEU:O	1:8:375:MET:HG2	2.21	0.41
2:A:29:TYR:CE2	2:K:531:TYR:HB3	2.55	0.41
2:A:125:GLU:HA	2:A:450:ASP:OD2	2.21	0.41
2:A:270:ILE:HG23	2:A:274:LEU:CD2	2.51	0.41
2:A:390:ASP:O	2:A:392:LYS:NZ	2.51	0.41
2:A:473:THR:HG22	2:A:476:ASP:OD2	2.21	0.41
2:A:551:ASN:OD1	2:A:552:ILE:N	2.53	0.41
2:C:92:MET:HG2	2:C:492:LEU:HD22	2.03	0.41
2:C:304:ALA:O	2:C:305:PHE:C	2.62	0.41
2:E:387:LYS:HD2	2:E:387:LYS:N	2.36	0.41
2:G:110:LEU:N	2:G:110:LEU:HD23	2.36	0.41
2:G:518:LEU:HA	2:G:521:GLU:HB2	2.02	0.41
2:H:155:ASP:OD1	2:H:155:ASP:C	2.63	0.41
2:H:521:GLU:CD	2:H:521:GLU:H	2.28	0.41
2:J:533:LEU:HD21	3:N:316:ASN:ND2	2.36	0.41
2:K:149:GLN:OE1	2:K:150:TYR:CE1	2.74	0.41
2:K:372:TRP:O	2:K:385:ALA:HB2	2.22	0.41
2:K:522:TYR:O	2:K:526:GLN:HG2	2.21	0.41
3:M:10:GLU:HA	3:M:13:MET:HG3	2.02	0.41
3:O:80:LEU:C	3:O:247:ARG:NH1	2.79	0.41
3:O:200:LEU:HD21	3:O:239:SER:CB	2.51	0.41
3:R:73:VAL:H	3:R:76:GLU:CD	2.28	0.41
3:R:310:MET:C	3:R:310:MET:SD	3.04	0.41
3:S:120:GLN:OE1	3:S:120:GLN:O	2.38	0.41
3:V:179:ILE:HG21	3:V:180:PHE:CZ	2.56	0.41
4:c:86:ASN:OD1	4:c:86:ASN:C	2.63	0.41
4:c:406:GLU:O	4:c:411:LYS:NZ	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:c:463:VAL:HG11	4:d:493:LEU:CD1	2.51	0.41
4:d:128:GLY:O	4:d:136:LYS:CE	2.69	0.41
4:h:84:GLU:H	4:h:84:GLU:CD	2.21	0.41
4:i:7:THR:O	4:i:8:ASN:CB	2.68	0.41
4:j:280:LYS:N	4:j:280:LYS:CD	2.84	0.41
4:k:320:ILE:HD12	4:k:321:ASP:H	1.85	0.41
1:w:159:ASN:OD1	1:w:272:GLY:CA	2.68	0.41
1:w:373:VAL:O	1:w:377:VAL:HG12	2.19	0.41
1:y:109:VAL:HG12	1:y:115:GLN:HG2	2.03	0.41
1:y:155:GLN:HB3	1:y:278:ALA:HB2	2.03	0.41
1:z:33:LYS:NZ	1:z:62:THR:O	2.54	0.41
1:2:303:ASN:OD1	1:2:304:TYR:N	2.52	0.40
1:3:139:ILE:O	1:3:139:ILE:HG23	2.21	0.40
1:4:191:GLY:HA3	1:4:286:PRO:HD3	2.02	0.40
1:5:206:ASN:O	1:5:231:LYS:HA	2.21	0.40
1:5:379:GLN:CD	1:7:391:THR:HG23	2.45	0.40
1:7:10:LEU:HD23	1:7:10:LEU:HA	1.95	0.40
1:8:42:MET:HG3	1:8:51:GLY:N	2.36	0.40
1:8:106:ARG:NH2	1:8:139:ILE:HG22	2.36	0.40
1:8:147:LYS:O	1:8:284:TYR:N	2.54	0.40
1:9:42:MET:SD	1:9:50:LEU:HB2	2.61	0.40
1:9:153:SER:OG	1:9:280:ASN:HB3	2.21	0.40
2:A:429:THR:O	2:A:429:THR:CG2	2.69	0.40
2:B:304:ALA:CB	2:B:468:VAL:HG13	2.51	0.40
2:B:361:THR:HG21	2:B:378:ALA:HB3	2.02	0.40
2:C:110:LEU:HD11	2:C:474:PHE:CD1	2.56	0.40
2:D:82:SER:O	2:D:86:THR:HG22	2.21	0.40
2:E:200:ASP:OD1	2:E:200:ASP:N	2.54	0.40
2:E:376:ARG:HD3	2:E:379:ASP:OD2	2.20	0.40
2:E:386:THR:OG1	2:E:394:GLU:OE1	2.36	0.40
2:F:486:GLY:HA3	3:T:39:PRO:HB2	2.03	0.40
2:F:549:LEU:HD11	1:y:372:LEU:HD13	2.03	0.40
2:G:58:VAL:HG12	2:G:59:TYR:N	2.35	0.40
2:G:376:ARG:O	2:G:380:ASN:HA	2.20	0.40
2:H:408:LYS:O	2:H:409:ASN:CG	2.64	0.40
2:I:1:MET:C	2:I:3:SER:N	2.79	0.40
2:I:115:THR:HG22	3:L:61:GLN:HG2	2.03	0.40
2:J:393:LEU:O	2:J:399:LYS:HB3	2.20	0.40
2:J:419:ASN:O	2:J:419:ASN:ND2	2.54	0.40
3:L:53:SER:HA	3:L:56:GLN:OE1	2.21	0.40
3:M:76:GLU:HA	3:M:79:VAL:HG22	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:249:GLU:OE2	3:M:253:GLN:HG2	2.21	0.40
3:O:29:GLN:O	3:O:33:GLY:N	2.55	0.40
3:P:22:GLU:CD	3:P:22:GLU:C	2.90	0.40
3:Q:120:GLN:OE1	3:Q:120:GLN:CA	2.68	0.40
3:T:4:SER:HB2	3:T:7:MET:CE	2.51	0.40
3:T:24:MET:O	3:T:27:GLY:CA	2.70	0.40
3:T:129:ASP:CG	3:T:130:GLY:N	2.79	0.40
3:U:82:GLN:CD	3:U:82:GLN:N	2.79	0.40
3:U:140:LYS:NZ	3:U:154:HIS:O	2.46	0.40
4:c:198:LEU:HD12	4:c:221:LEU:HD13	2.03	0.40
4:d:365:GLY:O	4:d:371:THR:O	2.39	0.40
4:g:183:ASP:HB3	4:g:310:MET:CE	2.49	0.40
4:h:350:TYR:CZ	4:h:376:ILE:HD12	2.56	0.40
4:h:368:ASP:OD1	4:h:369:GLY:N	2.54	0.40
4:i:183:ASP:OD1	4:i:183:ASP:C	2.63	0.40
4:i:351:THR:HB	4:i:390:ASN:HA	2.03	0.40
4:i:488:GLN:C	4:i:488:GLN:CD	2.88	0.40
4:m:426:LEU:HA	4:m:429:VAL:HG12	2.03	0.40
4:n:312:TYR:CZ	4:n:370:LYS:HB2	2.57	0.40
1:w:188:ASP:CG	1:w:192:ASN:H	2.30	0.40
1:w:208:TRP:CD1	1:w:268:GLN:HE22	2.38	0.40
1:x:304:TYR:CE1	1:x:310:GLN:NE2	2.89	0.40
1:y:84:ARG:C	1:y:85:LEU:HD22	2.46	0.40
1:z:85:LEU:HD12	1:z:114:MET:CB	2.51	0.40
1:z:158:LEU:HD23	1:z:208:TRP:CH2	2.55	0.40
1:2:23:ASN:HB3	1:2:371:GLU:OE2	2.21	0.40
1:2:289:LEU:HB2	1:2:304:TYR:CE2	2.55	0.40
1:3:239:GLU:OE2	1:3:239:GLU:HA	2.22	0.40
1:4:59:GLN:HB3	1:4:334:TRP:HH2	1.86	0.40
1:5:252:ASN:O	1:5:252:ASN:ND2	2.46	0.40
1:5:289:LEU:HB3	1:5:304:TYR:CE2	2.57	0.40
1:5:320:PHE:CE2	1:5:343:ALA:HB2	2.55	0.40
1:7:77:ILE:HG22	1:7:79:GLN:O	2.22	0.40
1:7:196:MET:SD	1:7:196:MET:C	3.04	0.40
1:8:250:THR:OG1	1:8:254:ALA:O	2.29	0.40
1:8:380:ARG:HB2	1:8:380:ARG:NH1	2.36	0.40
1:9:155:GLN:N	1:9:278:ALA:HB3	2.36	0.40
2:A:124:ALA:CB	2:A:436:MET:HE2	2.52	0.40
2:A:258:VAL:HG11	2:A:275:LEU:CD2	2.51	0.40
2:A:267:ASN:OD1	2:A:267:ASN:C	2.64	0.40
2:B:7:HIS:HB3	2:C:27:ASN:OD1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:150:TYR:HE1	2:C:154:GLN:CD	2.29	0.40
2:C:156:LYS:HE3	2:C:156:LYS:CA	2.35	0.40
2:C:342:ALA:HB2	2:C:407:GLN:HB2	2.04	0.40
2:E:15:ALA:O	2:E:19:LEU:HD23	2.21	0.40
2:F:511:GLN:O	2:F:515:GLY:N	2.54	0.40
2:G:46:SER:HA	2:G:55:GLY:HA2	2.02	0.40
2:H:150:TYR:C	2:H:150:TYR:CD1	2.99	0.40
2:H:213:VAL:CG2	2:H:229:MET:SD	3.09	0.40
2:I:298:LEU:HD13	2:I:298:LEU:C	2.47	0.40
2:I:303:LEU:C	2:I:303:LEU:CD2	2.94	0.40
2:I:332:SER:O	2:I:334:VAL:N	2.55	0.40
2:K:75:LEU:HD11	2:K:507:TYR:CA	2.52	0.40
2:K:226:ASN:HA	2:K:236:VAL:O	2.21	0.40
2:K:231:ASN:OD1	2:K:231:ASN:O	2.39	0.40
2:K:472:LYS:NZ	2:K:480:THR:HG21	2.36	0.40
3:M:230:ASP:OD2	4:a:152:ASP:HB3	2.21	0.40
3:O:22:GLU:OE2	3:O:293:GLN:CD	2.64	0.40
3:O:82:GLN:OE1	3:O:82:GLN:CA	2.66	0.40
3:O:163:GLN:OE1	3:O:163:GLN:O	2.39	0.40
3:P:286:VAL:HG21	4:e:3:GLN:NE2	2.36	0.40
3:Q:280:ASP:OD1	3:Q:280:ASP:C	2.64	0.40
3:U:106:ASP:OD1	4:k:53:ARG:NH2	2.45	0.40
3:V:92:GLU:OE2	3:V:92:GLU:CA	2.68	0.40
3:V:122:MET:CE	3:V:201:PHE:CE2	3.04	0.40
3:V:261:ASP:OD1	3:V:261:ASP:N	2.53	0.40
4:c:12:LEU:O	4:c:13:LEU:C	2.62	0.40
4:f:32:LEU:HD21	4:f:463:VAL:HG22	2.03	0.40
4:f:183:ASP:HA	4:f:310:MET:CE	2.51	0.40
4:g:494:LEU:C	4:g:494:LEU:CD1	2.95	0.40
4:j:170:LEU:O	4:j:171:ASP:C	2.63	0.40
4:m:271:LEU:HD21	4:m:275:ALA:O	2.22	0.40
1:w:193:ALA:HB2	1:w:286:PRO:CD	2.51	0.40
1:x:77:ILE:CD1	1:x:82:PHE:N	2.84	0.40
1:z:328:SER:HA	1:z:333:VAL:O	2.22	0.40
1:3:178:TYR:CD1	1:3:180:LYS:N	2.89	0.40
1:6:122:THR:N	1:6:127:THR:O	2.53	0.40
1:7:117:THR:HA	1:7:136:PRO:HA	2.03	0.40
1:8:10:LEU:HD22	1:8:382:TYR:CD1	2.56	0.40
1:8:76:ALA:N	1:8:357:THR:O	2.36	0.40
1:8:186:VAL:O	1:8:194:HIS:O	2.39	0.40
1:9:202:LYS:HG3	1:9:208:TRP:CD2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:40:ILE:C	2:A:41:LEU:HD22	2.46	0.40
2:A:88:ARG:NE	2:A:282:GLY:HA2	2.36	0.40
2:A:124:ALA:HB1	2:A:436:MET:HE2	2.03	0.40
2:A:367:PHE:CD1	2:A:372:TRP:CD1	3.09	0.40
2:A:396:ASP:O	2:A:398:LEU:HD22	2.22	0.40
2:A:453:ASN:ND2	3:O:162:GLN:OE1	2.54	0.40
2:B:143:GLN:OE1	2:B:143:GLN:HA	2.21	0.40
2:B:438:SER:N	2:B:452:ASP:OD2	2.53	0.40
2:C:98:LEU:HD13	2:C:98:LEU:O	2.21	0.40
2:C:153:ASP:O	2:C:157:GLN:HG2	2.21	0.40
2:D:75:LEU:CD1	2:D:79:GLN:HG3	2.51	0.40
2:D:131:GLN:OE1	2:D:131:GLN:HA	2.22	0.40
2:D:272:GLU:OE1	2:D:287:ARG:HD2	2.21	0.40
2:D:290:ASP:OD1	2:D:290:ASP:N	2.53	0.40
2:E:446:VAL:HG22	2:E:447:ASP:N	2.37	0.40
2:F:472:LYS:HB3	2:F:476:ASP:OD1	2.21	0.40
2:G:29:TYR:CE2	3:U:6:GLN:OE1	2.74	0.40
2:G:68:ASP:OD2	2:G:71:ILE:HG13	2.22	0.40
2:G:203:ASP:O	2:G:206:VAL:HG12	2.21	0.40
2:H:6:ASN:OD1	2:H:6:ASN:N	2.53	0.40
2:H:150:TYR:HD1	2:H:150:TYR:O	2.05	0.40
2:H:180:ASN:OD1	2:H:180:ASN:C	2.64	0.40
2:H:186:MET:CE	2:H:187:THR:HA	2.51	0.40
2:H:351:LYS:HD3	2:H:353:VAL:HG13	2.02	0.40
2:J:154:GLN:CG	2:J:291:LEU:HD11	2.50	0.40
2:J:439:GLU:O	2:J:448:THR:HG21	2.21	0.40
2:K:374:VAL:HG11	2:K:395:ILE:CD1	2.52	0.40
3:L:201:PHE:O	3:L:202:VAL:C	2.65	0.40
3:M:26:LEU:O	3:M:30:MET:HE3	2.20	0.40
3:M:249:GLU:O	3:M:252:THR:OG1	2.33	0.40
3:N:163:GLN:HA	3:N:169:THR:HA	2.02	0.40
3:O:205:ASP:C	3:O:208:ILE:HG12	2.46	0.40
3:P:36:VAL:HG23	3:P:41:ASP:HB2	2.03	0.40
3:P:308:GLN:CD	3:P:308:GLN:C	2.90	0.40
3:Q:77:GLU:OE2	3:Q:77:GLU:C	2.64	0.40
3:R:8:MET:SD	3:R:9:TYR:N	2.94	0.40
3:S:100:GLY:O	4:i:144:LEU:HD22	2.22	0.40
3:T:275:MET:HE2	3:T:279:VAL:HG11	2.02	0.40
3:V:92:GLU:OE2	3:V:92:GLU:HA	2.21	0.40
4:b:254:ASN:OD1	4:b:255:GLY:N	2.53	0.40
4:g:57:ASN:O	4:g:61:LEU:CG	2.66	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:j:14:THR:HG22	4:k:33:SER:CB	2.52	0.40
4:j:489:ASN:O	4:j:490:VAL:C	2.64	0.40
4:l:93:ARG:HB2	4:l:412:ILE:HG21	2.03	0.40
4:l:383:ALA:O	4:l:386:ALA:N	2.54	0.40
4:m:63:GLN:HA	4:m:66:ARG:HG3	2.03	0.40
4:m:486:VAL:HB	4:m:487:PRO:HD3	2.02	0.40
4:n:72:ILE:HD11	4:n:437:ILE:HD12	2.04	0.40
4:n:485:GLN:OE1	4:n:486:VAL:HA	2.20	0.40
1:w:42:MET:HE2	1:w:50:LEU:HB2	2.02	0.40
1:1:319:ASN:OD1	1:1:353:PHE:CE1	2.74	0.40
1:3:304:TYR:HB2	1:3:306:ASN:OD1	2.21	0.40
1:5:20:ILE:HD11	1:5:374:ASN:HB2	2.01	0.40
1:6:12:ALA:HB1	1:6:54:VAL:HG22	2.02	0.40
1:7:10:LEU:CD1	1:7:389:ILE:HD12	2.52	0.40
1:8:195:ASP:OD2	2:I:263:GLU:OE2	2.39	0.40
2:A:272:GLU:OE1	2:A:284:LEU:HD22	2.22	0.40
2:A:277:THR:N	2:A:281:GLY:HA3	2.36	0.40
2:B:64:GLN:OE1	2:B:65:ARG:C	2.65	0.40
2:B:434:ILE:O	2:B:436:MET:HE1	2.21	0.40
2:C:288:SER:O	2:C:292:ASP:HB2	2.21	0.40
2:D:36:ARG:HG2	2:D:37:GLN:N	2.37	0.40
2:D:40:ILE:O	2:D:61:SER:N	2.46	0.40
2:D:235:LEU:O	2:D:242:ARG:NH2	2.54	0.40
2:D:297:THR:HA	2:D:360:ALA:HB1	2.02	0.40
2:E:95:ILE:N	2:E:95:ILE:HD12	2.36	0.40
2:E:229:MET:CG	2:E:230:ALA:N	2.84	0.40
2:E:497:THR:O	2:E:501:ASN:OD1	2.38	0.40
2:F:182:GLN:N	2:F:182:GLN:CD	2.80	0.40
2:F:438:SER:HB3	2:F:454:ARG:HB2	2.03	0.40
2:F:480:THR:O	2:F:484:ASP:OD2	2.39	0.40
2:G:140:LEU:HD12	2:G:140:LEU:C	2.46	0.40
2:G:426:VAL:HG12	2:G:428:VAL:O	2.21	0.40
2:H:81:GLN:O	2:H:85:LEU:HD23	2.20	0.40
2:J:106:LEU:N	2:J:106:LEU:CD1	2.84	0.40
2:K:249:SER:OG	2:K:255:ARG:HB2	2.20	0.40
2:K:310:ASN:HB3	2:K:326:ASP:HB2	2.03	0.40
2:K:319:ALA:O	2:K:441:LYS:HG2	2.20	0.40
2:K:408:LYS:HB3	2:K:408:LYS:HE3	1.90	0.40
3:L:20:GLN:NE2	3:L:297:LEU:HD11	2.37	0.40
3:M:56:GLN:OE1	3:M:272:LYS:HE2	2.21	0.40
3:N:312:LEU:C	3:N:312:LEU:CD2	2.94	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:67:THR:O	3:O:70:THR:OG1	2.39	0.40
3:P:286:VAL:CG2	4:e:3:GLN:HE22	2.35	0.40
3:Q:36:VAL:HG11	3:Q:279:VAL:HG22	2.04	0.40
3:Q:164:VAL:HG21	3:Q:170:MET:CE	2.51	0.40
3:R:203:MET:HE3	3:R:236:LEU:N	2.36	0.40
3:R:289:SER:O	3:R:293:GLN:OE1	2.38	0.40
3:S:281:VAL:O	3:S:281:VAL:HG12	2.20	0.40
3:S:284:ASN:O	3:S:287:ILE:CG2	2.69	0.40
3:S:302:LYS:O	3:S:305:THR:OG1	2.35	0.40
3:V:86:ALA:O	3:V:89:THR:HG22	2.21	0.40
4:c:416:LEU:O	4:c:420:ASP:OD1	2.39	0.40
4:f:3:GLN:HB3	4:f:6:ASN:CA	2.48	0.40
4:g:55:THR:O	4:g:59:LYS:HG2	2.21	0.40
4:g:308:VAL:HG22	4:g:325:ALA:O	2.22	0.40
4:i:336:THR:HG22	4:i:337:GLN:N	2.37	0.40
4:i:490:VAL:O	4:i:493:LEU:HB3	2.21	0.40
4:j:432:ARG:NH2	4:k:122:GLU:OE1	2.50	0.40
4:j:458:ASP:O	4:j:462:GLU:OE2	2.39	0.40
4:k:61:LEU:HD23	4:k:150:ALA:HB2	2.03	0.40
4:l:280:LYS:HD2	4:l:280:LYS:O	2.21	0.40
4:m:86:ASN:O	4:m:90:GLN:HG2	2.21	0.40
4:n:252:LYS:N	4:n:252:LYS:CD	2.85	0.40
1:w:42:MET:HE1	1:w:51:GLY:CA	2.51	0.40
1:w:385:ASN:HA	1:w:388:THR:OG1	2.21	0.40
1:z:144:MET:SD	1:z:304:TYR:CD1	3.14	0.40
1:2:20:ILE:O	1:2:371:GLU:OE1	2.40	0.40
1:2:264:LEU:O	1:2:265:ASN:HB2	2.22	0.40
1:3:36:THR:N	1:3:58:THR:O	2.50	0.40
1:3:202:LYS:HB2	1:3:208:TRP:CE3	2.56	0.40
1:4:42:MET:HB2	1:4:51:GLY:C	2.46	0.40
1:4:116:LEU:O	1:4:136:PRO:HA	2.21	0.40
1:5:168:THR:N	1:5:169:PRO:HD2	2.37	0.40
1:6:30:TYR:CD2	1:6:361:LEU:CB	3.04	0.40
1:6:82:PHE:CD2	1:6:334:TRP:CD1	3.10	0.40
1:6:154:MET:HE3	1:6:184:VAL:HG21	2.03	0.40
1:7:87:ASP:OD1	1:7:91:SER:N	2.52	0.40
1:7:93:PHE:HB3	1:7:333:VAL:CG1	2.50	0.40
1:7:106:ARG:NH1	1:7:139:ILE:O	2.52	0.40
1:8:103:ASP:O	1:8:106:ARG:N	2.43	0.40
1:8:187:TYR:HA	1:8:192:ASN:O	2.21	0.40
2:A:285:THR:HB	2:A:289:GLN:OE1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3:SER:O	2:B:6:ASN:HB2	2.22	0.40
2:B:276:ASN:C	2:B:281:GLY:HA3	2.47	0.40
2:B:362:ASP:OD2	2:B:413:LEU:HD11	2.20	0.40
2:B:509:GLN:NE2	2:C:94:LYS:HD3	2.37	0.40
2:C:307:ASP:OD2	2:C:355:SER:CB	2.69	0.40
2:D:200:ASP:OD1	2:D:200:ASP:N	2.54	0.40
2:D:458:ALA:O	2:D:461:ASP:OD1	2.40	0.40
2:E:288:SER:O	2:E:292:ASP:HB2	2.20	0.40
2:F:36:ARG:HB2	2:F:516:VAL:HG13	2.04	0.40
2:F:36:ARG:NH2	2:F:66:GLU:OE2	2.37	0.40
2:F:368:ASP:O	2:F:408:LYS:NZ	2.24	0.40
2:G:43:GLN:HG3	1:w:26:ASN:OD1	2.21	0.40
2:G:543:ASN:HA	2:G:546:PHE:CD2	2.57	0.40
2:H:70:PHE:O	2:H:71:ILE:C	2.64	0.40
2:H:142:ASN:CG	3:U:168:ARG:HD2	2.47	0.40
2:H:162:ILE:O	2:H:166:VAL:HG12	2.21	0.40
2:I:180:ASN:OD1	2:I:224:THR:HG22	2.22	0.40
2:J:36:ARG:NH2	2:J:513:VAL:O	2.55	0.40
2:J:154:GLN:HG2	2:J:291:LEU:HD11	2.02	0.40
3:N:280:ASP:OD2	4:b:3:GLN:CD	2.65	0.40
3:O:7:MET:HG2	3:O:8:MET:N	2.37	0.40
3:P:168:ARG:HG2	3:P:256:GLU:OE2	2.21	0.40
3:P:216:GLU:OE2	3:P:216:GLU:C	2.65	0.40
3:Q:276:SER:C	3:Q:278:LEU:N	2.76	0.40
3:Q:298:GLN:HG3	3:Q:299:ALA:N	2.35	0.40
3:R:181:ASN:OD1	3:R:199:ASN:ND2	2.54	0.40
3:U:47:SER:O	3:U:50:VAL:HG22	2.21	0.40
4:b:493:LEU:HG	4:b:494:LEU:N	2.37	0.40
4:d:199:ASP:HB3	4:d:256:GLU:HA	2.03	0.40
4:e:236:VAL:CG2	4:e:242:LYS:HB2	2.51	0.40
4:f:6:ASN:C	4:f:6:ASN:OD1	2.64	0.40
4:h:376:ILE:HD13	4:h:376:ILE:HA	1.95	0.40
4:i:233:LYS:HE3	4:i:245:TYR:OH	2.21	0.40
4:j:182:SER:O	4:j:310:MET:HE3	2.22	0.40
4:k:464:SER:O	4:k:467:SER:OG	2.36	0.40
1:w:344:LEU:HD12	1:w:344:LEU:N	2.37	0.40
1:x:3:PHE:HB3	1:x:392:GLN:HG2	2.03	0.40
1:x:295:ASN:HB2	1:x:297:ASP:OD1	2.22	0.40
1:x:331:ASP:O	1:x:332:ASN:ND2	2.55	0.40
1:z:323:ASN:OD1	1:z:323:ASN:N	2.53	0.40
1:z:380:ARG:NH1	1:z:381:ASN:HA	2.37	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	1	401/403 (100%)	377 (94%)	24 (6%)	0	100	100
1	2	401/403 (100%)	360 (90%)	41 (10%)	0	100	100
1	3	401/403 (100%)	365 (91%)	35 (9%)	1 (0%)	43	72
1	4	401/403 (100%)	356 (89%)	42 (10%)	3 (1%)	18	48
1	5	401/403 (100%)	354 (88%)	45 (11%)	2 (0%)	24	54
1	6	401/403 (100%)	364 (91%)	35 (9%)	2 (0%)	24	54
1	7	401/403 (100%)	355 (88%)	44 (11%)	2 (0%)	24	54
1	8	401/403 (100%)	372 (93%)	28 (7%)	1 (0%)	43	72
1	9	401/403 (100%)	371 (92%)	30 (8%)	0	100	100
1	w	401/403 (100%)	355 (88%)	45 (11%)	1 (0%)	43	72
1	x	401/403 (100%)	365 (91%)	32 (8%)	4 (1%)	12	39
1	y	401/403 (100%)	374 (93%)	27 (7%)	0	100	100
1	z	401/403 (100%)	361 (90%)	40 (10%)	0	100	100
2	A	550/553 (100%)	520 (94%)	30 (6%)	0	100	100
2	B	550/553 (100%)	514 (94%)	34 (6%)	2 (0%)	30	59
2	C	548/553 (99%)	512 (93%)	34 (6%)	2 (0%)	30	59
2	D	550/553 (100%)	502 (91%)	47 (8%)	1 (0%)	43	72
2	E	548/553 (99%)	500 (91%)	46 (8%)	2 (0%)	30	59
2	F	549/553 (99%)	524 (95%)	25 (5%)	0	100	100
2	G	549/553 (99%)	502 (91%)	45 (8%)	2 (0%)	30	59
2	H	549/553 (99%)	509 (93%)	40 (7%)	0	100	100
2	I	550/553 (100%)	494 (90%)	52 (10%)	4 (1%)	18	48

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	J	550/553 (100%)	506 (92%)	43 (8%)	1 (0%)	43	72
2	K	550/553 (100%)	514 (94%)	34 (6%)	2 (0%)	30	59
3	L	304/317 (96%)	286 (94%)	17 (6%)	1 (0%)	36	65
3	M	310/317 (98%)	296 (96%)	14 (4%)	0	100	100
3	N	311/317 (98%)	291 (94%)	19 (6%)	1 (0%)	36	65
3	O	308/317 (97%)	295 (96%)	13 (4%)	0	100	100
3	P	305/317 (96%)	294 (96%)	10 (3%)	1 (0%)	36	65
3	Q	303/317 (96%)	286 (94%)	17 (6%)	0	100	100
3	R	308/317 (97%)	291 (94%)	17 (6%)	0	100	100
3	S	310/317 (98%)	298 (96%)	11 (4%)	1 (0%)	36	65
3	T	312/317 (98%)	304 (97%)	8 (3%)	0	100	100
3	U	314/317 (99%)	298 (95%)	16 (5%)	0	100	100
3	V	313/317 (99%)	295 (94%)	17 (5%)	1 (0%)	36	65
4	a	492/495 (99%)	475 (96%)	17 (4%)	0	100	100
4	b	491/495 (99%)	480 (98%)	11 (2%)	0	100	100
4	c	492/495 (99%)	475 (96%)	17 (4%)	0	100	100
4	d	492/495 (99%)	473 (96%)	19 (4%)	0	100	100
4	e	492/495 (99%)	480 (98%)	10 (2%)	2 (0%)	30	59
4	f	493/495 (100%)	478 (97%)	13 (3%)	2 (0%)	30	59
4	g	491/495 (99%)	475 (97%)	16 (3%)	0	100	100
4	h	492/495 (99%)	480 (98%)	12 (2%)	0	100	100
4	i	492/495 (99%)	478 (97%)	13 (3%)	1 (0%)	43	72
4	j	491/495 (99%)	472 (96%)	19 (4%)	0	100	100
4	k	492/495 (99%)	476 (97%)	16 (3%)	0	100	100
4	l	490/495 (99%)	469 (96%)	20 (4%)	1 (0%)	43	72
4	m	490/495 (99%)	480 (98%)	10 (2%)	0	100	100
4	n	491/495 (99%)	472 (96%)	19 (4%)	0	100	100
4	o	491/495 (99%)	472 (96%)	18 (4%)	1 (0%)	43	72
All	All	22026/22234 (99%)	20695 (94%)	1287 (6%)	44 (0%)	44	72

All (44) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	7	44	ALA
2	J	29	TYR
3	N	220	VAL
3	S	127	SER
4	e	5	ILE
1	w	171	SER
1	6	48	VAL
2	G	470	GLY
2	I	344	LYS
4	f	8	ASN
1	x	330	GLY
1	4	167	LYS
1	5	42	MET
1	8	47	LYS
2	D	396	ASP
2	E	396	ASP
2	I	124	ALA
2	K	325	LYS
1	x	79	GLN
1	3	349	GLY
2	B	306	ALA
4	l	43	ASP
4	o	4	VAL
1	x	2	SER
1	x	82	PHE
2	B	49	GLY
2	C	305	PHE
2	E	263	GLU
2	G	518	LEU
2	K	303	LEU
3	L	220	VAL
4	i	8	ASN
1	7	296	ASN
2	C	338	ASN
1	4	164	VAL
3	P	281	VAL
4	f	134	GLY
1	4	163	PRO
1	6	165	PRO
2	I	470	GLY
2	I	397	GLY
4	e	4	VAL
1	5	290	VAL

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Mol	Chain	Res	Type
3	V	220	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	1	323/323 (100%)	313 (97%)	10 (3%)	35	69
1	2	323/323 (100%)	314 (97%)	9 (3%)	38	72
1	3	323/323 (100%)	309 (96%)	14 (4%)	26	60
1	4	323/323 (100%)	307 (95%)	16 (5%)	22	53
1	5	323/323 (100%)	307 (95%)	16 (5%)	22	53
1	6	323/323 (100%)	314 (97%)	9 (3%)	38	72
1	7	323/323 (100%)	299 (93%)	24 (7%)	13	38
1	8	323/323 (100%)	312 (97%)	11 (3%)	32	66
1	9	323/323 (100%)	315 (98%)	8 (2%)	42	74
1	w	323/323 (100%)	300 (93%)	23 (7%)	13	40
1	x	323/323 (100%)	309 (96%)	14 (4%)	26	60
1	y	323/323 (100%)	314 (97%)	9 (3%)	38	72
1	z	323/323 (100%)	306 (95%)	17 (5%)	20	52
2	A	452/453 (100%)	434 (96%)	18 (4%)	28	62
2	B	452/453 (100%)	431 (95%)	21 (5%)	24	57
2	C	450/453 (99%)	432 (96%)	18 (4%)	28	62
2	D	452/453 (100%)	436 (96%)	16 (4%)	32	66
2	E	450/453 (99%)	426 (95%)	24 (5%)	20	52
2	F	451/453 (100%)	430 (95%)	21 (5%)	23	56
2	G	451/453 (100%)	432 (96%)	19 (4%)	26	60
2	H	427/453 (94%)	405 (95%)	22 (5%)	21	52
2	I	452/453 (100%)	424 (94%)	28 (6%)	16	46
2	J	452/453 (100%)	435 (96%)	17 (4%)	29	64

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	K	452/453 (100%)	429 (95%)	23 (5%)	21	53
3	L	250/261 (96%)	247 (99%)	3 (1%)	63	86
3	M	256/261 (98%)	239 (93%)	17 (7%)	15	43
3	N	257/261 (98%)	243 (95%)	14 (5%)	20	51
3	O	254/261 (97%)	242 (95%)	12 (5%)	23	56
3	P	251/261 (96%)	248 (99%)	3 (1%)	63	86
3	Q	249/261 (95%)	242 (97%)	7 (3%)	38	72
3	R	254/261 (97%)	247 (97%)	7 (3%)	38	72
3	S	256/261 (98%)	247 (96%)	9 (4%)	32	66
3	T	258/261 (99%)	251 (97%)	7 (3%)	39	73
3	U	260/261 (100%)	250 (96%)	10 (4%)	29	64
3	V	259/261 (99%)	247 (95%)	12 (5%)	24	57
4	a	390/391 (100%)	383 (98%)	7 (2%)	51	80
4	b	390/391 (100%)	374 (96%)	16 (4%)	27	61
4	c	390/391 (100%)	377 (97%)	13 (3%)	33	67
4	d	390/391 (100%)	385 (99%)	5 (1%)	61	86
4	e	390/391 (100%)	381 (98%)	9 (2%)	44	76
4	f	391/391 (100%)	382 (98%)	9 (2%)	44	76
4	g	390/391 (100%)	380 (97%)	10 (3%)	40	73
4	h	390/391 (100%)	384 (98%)	6 (2%)	57	84
4	i	390/391 (100%)	378 (97%)	12 (3%)	35	69
4	j	390/391 (100%)	379 (97%)	11 (3%)	38	72
4	k	390/391 (100%)	381 (98%)	9 (2%)	44	76
4	l	389/391 (100%)	379 (97%)	10 (3%)	40	73
4	m	389/391 (100%)	379 (97%)	10 (3%)	40	73
4	n	390/391 (100%)	382 (98%)	8 (2%)	47	77
4	o	390/391 (100%)	377 (97%)	13 (3%)	33	67
All	All	17793/17918 (99%)	17137 (96%)	656 (4%)	31	64

All (656) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	1	68	ASN

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Mol	Chain	Res	Type
1	1	108	LEU
1	1	181	LYS
1	1	195	ASP
1	1	268	GLN
1	1	292	TYR
1	1	312	LEU
1	1	334	TRP
1	1	369	SER
1	1	394	GLN
1	2	65	THR
1	2	91	SER
1	2	102	LEU
1	2	106	ARG
1	2	161	THR
1	2	170	PHE
1	2	215	SER
1	2	268	GLN
1	2	369	SER
1	3	33	LYS
1	3	66	THR
1	3	99	GLN
1	3	111	MET
1	3	162	ASP
1	3	167	LYS
1	3	183	THR
1	3	203	THR
1	3	231	LYS
1	3	296	ASN
1	3	297	ASP
1	3	345	LEU
1	3	367	ASP
1	3	399	LEU
1	4	16	ASN
1	4	61	PHE
1	4	88	SER
1	4	159	ASN
1	4	161	THR
1	4	167	LYS
1	4	168	THR
1	4	170	PHE
1	4	185	THR
1	4	202	LYS

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Mol	Chain	Res	Type
1	4	215	SER
1	4	231	LYS
1	4	233	ASN
1	4	255	THR
1	4	324	GLU
1	4	334	TRP
1	5	4	SER
1	5	38	SER
1	5	42	MET
1	5	46	SER
1	5	53	LYS
1	5	111	MET
1	5	143	LEU
1	5	188	ASP
1	5	250	THR
1	5	261	LEU
1	5	285	LYS
1	5	289	LEU
1	5	290	VAL
1	5	292	TYR
1	5	310	GLN
1	5	369	SER
1	6	83	PHE
1	6	85	LEU
1	6	94	TYR
1	6	197	ASN
1	6	199	TYR
1	6	311	VAL
1	6	372	LEU
1	6	392	GLN
1	6	401	ASN
1	7	3	PHE
1	7	15	THR
1	7	26	ASN
1	7	52	VAL
1	7	65	THR
1	7	103	ASP
1	7	112	GLN
1	7	127	THR
1	7	143	LEU
1	7	153	SER
1	7	162	ASP

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Mol	Chain	Res	Type
1	7	170	PHE
1	7	187	TYR
1	7	197	ASN
1	7	201	VAL
1	7	217	ASP
1	7	235	ASN
1	7	239	GLU
1	7	289	LEU
1	7	329	GLN
1	7	338	GLN
1	7	395	ILE
1	7	399	LEU
1	7	400	VAL
1	8	36	THR
1	8	47	LYS
1	8	85	LEU
1	8	87	ASP
1	8	172	VAL
1	8	173	SER
1	8	179	ASN
1	8	206	ASN
1	8	284	TYR
1	8	357	THR
1	8	372	LEU
1	9	48	VAL
1	9	162	ASP
1	9	166	SER
1	9	168	THR
1	9	174	ASP
1	9	194	HIS
1	9	357	THR
1	9	358	ASN
2	A	7	HIS
2	A	47	THR
2	A	82	SER
2	A	106	LEU
2	A	143	GLN
2	A	182	GLN
2	A	194	SER
2	A	198	LEU
2	A	209	LEU
2	A	256	THR

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Mol	Chain	Res	Type
2	A	310	ASN
2	A	375	THR
2	A	439	GLU
2	A	451	SER
2	A	481	LEU
2	A	483	SER
2	A	514	SER
2	A	540	GLN
2	B	66	GLU
2	B	68	ASP
2	B	82	SER
2	B	103	SER
2	B	144	PHE
2	B	158	VAL
2	B	181	ASP
2	B	226	ASN
2	B	261	VAL
2	B	275	LEU
2	B	285	THR
2	B	290	ASP
2	B	301	LEU
2	B	332	SER
2	B	364	LYS
2	B	371	ASP
2	B	374	VAL
2	B	418	SER
2	B	423	ASP
2	B	473	THR
2	B	476	ASP
2	C	7	HIS
2	C	16	GLN
2	C	101	ASP
2	C	111	GLN
2	C	119	THR
2	C	131	GLN
2	C	148	ASP
2	C	181	ASP
2	C	206	VAL
2	C	209	LEU
2	C	228	THR
2	C	234	THR
2	C	263	GLU

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Mol	Chain	Res	Type
2	C	277	THR
2	C	330	ILE
2	C	382	THR
2	C	387	LYS
2	C	552	ILE
2	D	48	LEU
2	D	76	ARG
2	D	105	SER
2	D	142	ASN
2	D	184	SER
2	D	205	LEU
2	D	240	THR
2	D	252	ASP
2	D	263	GLU
2	D	307	ASP
2	D	365	ILE
2	D	399	LYS
2	D	427	LYS
2	D	433	GLU
2	D	443	ASP
2	D	483	SER
2	E	5	ILE
2	E	31	VAL
2	E	68	ASP
2	E	116	SER
2	E	131	GLN
2	E	154	GLN
2	E	200	ASP
2	E	208	GLU
2	E	240	THR
2	E	315	LYS
2	E	346	VAL
2	E	351	LYS
2	E	353	VAL
2	E	375	THR
2	E	380	ASN
2	E	382	THR
2	E	387	LYS
2	E	436	MET
2	E	473	THR
2	E	509	GLN
2	E	533	LEU

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Mol	Chain	Res	Type
2	E	538	VAL
2	E	539	LEU
2	E	545	LEU
2	F	29	TYR
2	F	30	ASN
2	F	98	LEU
2	F	111	GLN
2	F	116	SER
2	F	194	SER
2	F	201	GLN
2	F	209	LEU
2	F	221	ASP
2	F	301	LEU
2	F	370	THR
2	F	393	LEU
2	F	411	SER
2	F	423	ASP
2	F	438	SER
2	F	483	SER
2	F	495	SER
2	F	516	VAL
2	F	525	LEU
2	F	527	ARG
2	F	535	ASN
2	G	29	TYR
2	G	41	LEU
2	G	169	ILE
2	G	181	ASP
2	G	225	TYR
2	G	235	LEU
2	G	332	SER
2	G	352	VAL
2	G	386	THR
2	G	411	SER
2	G	413	LEU
2	G	465	SER
2	G	471	ASN
2	G	476	ASP
2	G	481	LEU
2	G	489	THR
2	G	508	LYS
2	G	513	VAL

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Mol	Chain	Res	Type
2	G	522	TYR
2	H	5	ILE
2	H	6	ASN
2	H	20	ASN
2	H	29	TYR
2	H	30	ASN
2	H	66	GLU
2	H	71	ILE
2	H	79	GLN
2	H	80	ASN
2	H	103	SER
2	H	113	PHE
2	H	143	GLN
2	H	272	GLU
2	H	343	ASP
2	H	379	ASP
2	H	382	THR
2	H	423	ASP
2	H	440	SER
2	H	473	THR
2	H	493	LYS
2	H	519	ASP
2	H	549	LEU
2	I	5	ILE
2	I	16	GLN
2	I	75	LEU
2	I	92	MET
2	I	93	SER
2	I	98	LEU
2	I	99	LEU
2	I	102	LYS
2	I	116	SER
2	I	138	GLU
2	I	149	GLN
2	I	154	GLN
2	I	183	ILE
2	I	201	GLN
2	I	216	GLU
2	I	236	VAL
2	I	254	THR
2	I	261	VAL
2	I	286	PHE

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Mol	Chain	Res	Type
2	I	303	LEU
2	I	322	ASN
2	I	372	TRP
2	I	387	LYS
2	I	388	ASP
2	I	421	ILE
2	I	423	ASP
2	I	445	ASP
2	I	459	LEU
2	J	75	LEU
2	J	82	SER
2	J	179	LEU
2	J	181	ASP
2	J	202	ARG
2	J	277	THR
2	J	288	SER
2	J	334	VAL
2	J	386	THR
2	J	393	LEU
2	J	413	LEU
2	J	424	MET
2	J	441	LYS
2	J	473	THR
2	J	476	ASP
2	J	492	LEU
2	J	530	GLN
2	K	5	ILE
2	K	48	LEU
2	K	68	ASP
2	K	101	ASP
2	K	142	ASN
2	K	221	ASP
2	K	224	THR
2	K	242	ARG
2	K	303	LEU
2	K	307	ASP
2	K	309	PHE
2	K	326	ASP
2	K	336	TYR
2	K	343	ASP
2	K	346	VAL
2	K	383	PHE

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Mol	Chain	Res	Type
2	K	388	ASP
2	K	474	PHE
2	K	487	ASN
2	K	508	LYS
2	K	512	SER
2	K	519	ASP
2	K	522	TYR
3	L	5	THR
3	L	70	THR
3	L	120	GLN
3	M	7	MET
3	M	9	TYR
3	M	11	GLN
3	M	34	LYS
3	M	37	THR
3	M	38	ASN
3	M	94	ILE
3	M	110	LEU
3	M	113	ASP
3	M	114	LEU
3	M	139	TYR
3	M	196	SER
3	M	203	MET
3	M	216	GLU
3	M	220	VAL
3	M	230	ASP
3	M	287	ILE
3	N	10	GLU
3	N	17	THR
3	N	24	MET
3	N	48	GLN
3	N	70	THR
3	N	106	ASP
3	N	109	SER
3	N	114	LEU
3	N	208	ILE
3	N	229	ILE
3	N	261	ASP
3	N	308	GLN
3	N	312	LEU
3	N	314	GLN
3	O	26	LEU

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Mol	Chain	Res	Type
3	O	47	SER
3	O	105	ASP
3	O	112	THR
3	O	135	ILE
3	O	147	ASP
3	O	166	SER
3	O	169	THR
3	O	242	ASN
3	O	263	LEU
3	O	298	GLN
3	O	311	SER
3	P	71	GLN
3	P	188	VAL
3	P	278	LEU
3	Q	80	LEU
3	Q	200	LEU
3	Q	272	LYS
3	Q	278	LEU
3	Q	280	ASP
3	Q	286	VAL
3	Q	293	GLN
3	R	16	ILE
3	R	48	GLN
3	R	82	GLN
3	R	172	ILE
3	R	203	MET
3	R	292	MET
3	R	293	GLN
3	S	16	ILE
3	S	52	LEU
3	S	104	ASP
3	S	105	ASP
3	S	112	THR
3	S	154	HIS
3	S	218	ASN
3	S	232	THR
3	S	290	TYR
3	T	10	GLU
3	T	139	TYR
3	T	188	VAL
3	T	230	ASP
3	T	258	SER

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Mol	Chain	Res	Type
3	T	266	ASP
3	T	302	LYS
3	U	11	GLN
3	U	19	SER
3	U	26	LEU
3	U	34	LYS
3	U	83	VAL
3	U	106	ASP
3	U	123	ASN
3	U	223	GLU
3	U	279	VAL
3	U	316	ASN
3	V	9	TYR
3	V	50	VAL
3	V	85	THR
3	V	106	ASP
3	V	230	ASP
3	V	237	LYS
3	V	249	GLU
3	V	252	THR
3	V	258	SER
3	V	265	SER
3	V	312	LEU
3	V	315	LEU
4	a	5	ILE
4	a	102	SER
4	a	230	TYR
4	a	248	VAL
4	a	349	LYS
4	a	425	ASP
4	a	464	SER
4	b	10	LEU
4	b	12	LEU
4	b	108	ASP
4	b	152	ASP
4	b	208	THR
4	b	231	TYR
4	b	281	ASN
4	b	313	THR
4	b	336	THR
4	b	375	SER
4	b	446	ASN

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Mol	Chain	Res	Type
4	b	447	LEU
4	b	464	SER
4	b	477	THR
4	b	494	LEU
4	b	495	ARG
4	c	9	SER
4	c	12	LEU
4	c	13	LEU
4	c	32	LEU
4	c	108	ASP
4	c	164	ASN
4	c	171	ASP
4	c	213	THR
4	c	252	LYS
4	c	349	LYS
4	c	406	GLU
4	c	422	LEU
4	c	445	ASN
4	d	108	ASP
4	d	268	THR
4	d	351	THR
4	d	392	LYS
4	d	491	LEU
4	e	57	ASN
4	e	102	SER
4	e	106	GLN
4	e	108	ASP
4	e	152	ASP
4	e	161	LYS
4	e	172	THR
4	e	188	VAL
4	e	485	GLN
4	f	5	ILE
4	f	7	THR
4	f	10	LEU
4	f	29	ILE
4	f	42	LYS
4	f	133	ASN
4	f	173	LEU
4	f	489	ASN
4	f	495	ARG
4	g	5	ILE

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Mol	Chain	Res	Type
4	g	11	SER
4	g	108	ASP
4	g	159	ASP
4	g	182	SER
4	g	404	THR
4	g	420	ASP
4	g	440	LEU
4	g	452	SER
4	g	464	SER
4	h	154	GLU
4	h	224	ASP
4	h	278	ASP
4	h	392	LYS
4	h	396	ASP
4	h	489	ASN
4	i	5	ILE
4	i	9	SER
4	i	10	LEU
4	i	105	SER
4	i	182	SER
4	i	193	ASP
4	i	210	LEU
4	i	248	VAL
4	i	321	ASP
4	i	422	LEU
4	i	456	ASP
4	i	495	ARG
4	j	102	SER
4	j	108	ASP
4	j	161	LYS
4	j	216	LYS
4	j	218	ASP
4	j	363	LYS
4	j	404	THR
4	j	449	SER
4	j	477	THR
4	j	494	LEU
4	j	495	ARG
4	k	57	ASN
4	k	152	ASP
4	k	218	ASP
4	k	291	GLU

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Mol	Chain	Res	Type
4	k	296	LEU
4	k	371	THR
4	k	449	SER
4	k	459	TYR
4	k	489	ASN
4	l	21	SER
4	l	23	SER
4	l	48	GLN
4	l	108	ASP
4	l	193	ASP
4	l	224	ASP
4	l	291	GLU
4	l	316	ASN
4	l	346	ASN
4	l	361	LEU
4	m	61	LEU
4	m	108	ASP
4	m	140	GLN
4	m	193	ASP
4	m	217	ILE
4	m	237	THR
4	m	278	ASP
4	m	340	ASP
4	m	464	SER
4	m	488	GLN
4	n	106	GLN
4	n	108	ASP
4	n	117	THR
4	n	183	ASP
4	n	282	VAL
4	n	347	THR
4	n	349	LYS
4	n	455	GLU
4	o	5	ILE
4	o	6	ASN
4	o	29	ILE
4	o	102	SER
4	o	154	GLU
4	o	172	THR
4	o	280	LYS
4	o	321	ASP
4	o	379	LYS

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Mol	Chain	Res	Type
4	o	422	LEU
4	o	468	ARG
4	o	489	ASN
4	o	495	ARG
1	w	3	PHE
1	w	5	GLN
1	w	80	ASN
1	w	102	LEU
1	w	108	LEU
1	w	162	ASP
1	w	164	VAL
1	w	167	LYS
1	w	168	THR
1	w	170	PHE
1	w	202	LYS
1	w	232	PHE
1	w	233	ASN
1	w	240	SER
1	w	252	ASN
1	w	255	THR
1	w	262	SER
1	w	265	ASN
1	w	294	ILE
1	w	297	ASP
1	w	364	SER
1	w	372	LEU
1	w	375	MET
1	x	59	GLN
1	x	80	ASN
1	x	82	PHE
1	x	141	ASN
1	x	204	LYS
1	x	221	THR
1	x	268	GLN
1	x	284	TYR
1	x	285	LYS
1	x	329	GLN
1	x	369	SER
1	x	383	GLN
1	x	391	THR
1	x	399	LEU
1	y	57	ILE

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Mol	Chain	Res	Type
1	y	119	TYR
1	y	167	LYS
1	y	178	TYR
1	y	183	THR
1	y	369	SER
1	y	389	ILE
1	y	393	ASP
1	y	403	ARG
1	z	24	ILE
1	z	36	THR
1	z	54	VAL
1	z	73	LEU
1	z	107	ASN
1	z	110	ASN
1	z	116	LEU
1	z	167	LYS
1	z	170	PHE
1	z	194	HIS
1	z	196	MET
1	z	230	LEU
1	z	248	THR
1	z	267	MET
1	z	268	GLN
1	z	334	TRP
1	z	382	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (295) such sidechains are listed below:

Mol	Chain	Res	Type
1	1	11	ASN
1	1	16	ASN
1	1	80	ASN
1	1	245	ASN
1	1	275	ASN
1	1	352	ASN
1	1	381	ASN
1	2	5	GLN
1	2	80	ASN
1	2	133	ASN
1	2	269	GLN
1	2	323	ASN
1	2	329	GLN

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Mol	Chain	Res	Type
1	3	79	GLN
1	3	80	ASN
1	3	89	ASN
1	3	206	ASN
1	3	268	GLN
1	3	269	GLN
1	3	293	GLN
1	3	295	ASN
1	3	303	ASN
1	3	385	ASN
1	3	387	GLN
1	4	157	ASN
1	4	159	ASN
1	4	206	ASN
1	4	268	GLN
1	4	269	GLN
1	4	275	ASN
1	4	296	ASN
1	4	319	ASN
1	4	329	GLN
1	4	401	ASN
1	5	11	ASN
1	5	245	ASN
1	5	268	GLN
1	6	16	ASN
1	6	99	GLN
1	6	192	ASN
1	6	332	ASN
1	6	401	ASN
1	7	22	ASN
1	7	110	ASN
1	7	194	HIS
1	7	252	ASN
1	7	293	GLN
1	7	303	ASN
1	7	319	ASN
1	7	323	ASN
1	7	392	GLN
1	8	99	GLN
1	8	252	ASN
1	8	392	GLN
1	9	194	HIS

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Mol	Chain	Res	Type
1	9	392	GLN
2	A	37	GLN
2	A	43	GLN
2	A	81	GLN
2	A	201	GLN
2	A	210	ASN
2	A	310	ASN
2	A	359	GLN
2	A	453	ASN
2	B	25	ASN
2	B	43	GLN
2	B	74	GLN
2	B	81	GLN
2	B	111	GLN
2	B	293	GLN
2	B	300	GLN
2	B	419	ASN
2	B	425	ASN
2	B	475	ASN
2	B	510	GLN
2	B	511	GLN
2	B	543	ASN
2	C	56	ASN
2	C	74	GLN
2	C	182	GLN
2	C	196	ASN
2	D	30	ASN
2	D	118	GLN
2	D	149	GLN
2	D	157	GLN
2	D	175	GLN
2	D	220	GLN
2	D	226	ASN
2	D	293	GLN
2	D	430	ASN
2	E	20	ASN
2	E	37	GLN
2	E	97	ASN
2	F	74	GLN
2	F	157	GLN
2	F	175	GLN
2	F	178	ASN

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Mol	Chain	Res	Type
2	F	463	GLN
2	F	475	ASN
2	F	505	GLN
2	F	524	ASN
2	G	20	ASN
2	G	97	ASN
2	G	289	GLN
2	G	457	GLN
2	G	517	ASN
2	G	540	GLN
2	H	27	ASN
2	H	123	ASN
2	H	131	GLN
2	H	142	ASN
2	H	180	ASN
2	H	540	GLN
2	H	543	ASN
2	I	201	GLN
2	I	430	ASN
2	I	511	GLN
2	J	24	ASN
2	J	91	GLN
2	J	171	ASN
2	J	178	ASN
2	J	220	GLN
2	J	419	ASN
2	J	499	GLN
2	J	511	GLN
2	J	551	ASN
2	K	20	ASN
2	K	27	ASN
2	K	74	GLN
2	K	168	GLN
2	K	171	ASN
2	K	196	ASN
2	K	340	ASN
2	K	359	GLN
3	L	20	GLN
3	L	48	GLN
3	L	115	GLN
3	L	131	ASN
3	L	162	GLN

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Mol	Chain	Res	Type
3	L	274	GLN
3	L	308	GLN
3	M	178	GLN
3	M	274	GLN
3	M	308	GLN
3	N	20	GLN
3	N	131	ASN
3	N	274	GLN
3	N	277	ASN
3	N	284	ASN
3	N	316	ASN
3	O	54	GLN
3	O	162	GLN
3	O	174	HIS
3	O	253	GLN
3	O	277	ASN
3	O	298	GLN
3	P	59	ASN
3	P	82	GLN
3	P	271	GLN
3	P	274	GLN
3	P	277	ASN
3	Q	253	GLN
3	R	54	GLN
3	R	58	GLN
3	R	131	ASN
3	R	293	GLN
3	S	12	ASN
3	S	29	GLN
3	S	48	GLN
3	S	242	ASN
3	S	253	GLN
3	T	12	ASN
3	T	20	GLN
3	T	123	ASN
3	T	181	ASN
3	T	274	GLN
3	T	294	GLN
3	U	6	GLN
3	U	11	GLN
3	U	12	ASN
3	U	56	GLN

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Mol	Chain	Res	Type
3	U	115	GLN
3	U	123	ASN
3	U	162	GLN
3	U	298	GLN
3	V	11	GLN
3	V	12	ASN
3	V	48	GLN
3	V	61	GLN
3	V	293	GLN
4	a	3	GLN
4	a	48	GLN
4	a	484	ASN
4	b	48	GLN
4	b	101	ASN
4	b	200	ASN
4	b	286	ASN
4	b	430	GLN
4	c	3	GLN
4	c	16	ASN
4	c	17	ASN
4	c	48	GLN
4	c	83	ASN
4	c	164	ASN
4	c	200	ASN
4	c	283	GLN
4	c	315	ASN
4	d	3	GLN
4	d	101	ASN
4	d	200	ASN
4	d	465	ASN
4	e	3	GLN
4	e	19	ASN
4	e	69	ASN
4	e	470	GLN
4	e	485	GLN
4	f	8	ASN
4	f	76	GLN
4	f	90	GLN
4	f	142	ASN
4	f	316	ASN
4	f	430	GLN
4	f	488	GLN

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Mol	Chain	Res	Type
4	g	39	ASN
4	g	52	ASN
4	g	151	ASN
4	g	338	ASN
4	g	489	ASN
4	h	76	GLN
4	i	16	ASN
4	i	17	ASN
4	i	48	GLN
4	i	52	ASN
4	i	86	ASN
4	i	88	ASN
4	i	90	GLN
4	i	434	ASN
4	i	445	ASN
4	j	283	GLN
4	j	484	ASN
4	k	3	GLN
4	k	22	GLN
4	k	63	GLN
4	k	162	GLN
4	k	200	ASN
4	k	286	ASN
4	k	338	ASN
4	k	484	ASN
4	k	485	GLN
4	l	6	ASN
4	l	76	GLN
4	l	140	GLN
4	l	142	ASN
4	l	394	GLN
4	m	16	ASN
4	m	121	ASN
4	m	439	ASN
4	m	473	GLN
4	m	485	GLN
4	n	162	GLN
4	n	166	GLN
4	n	283	GLN
4	n	394	GLN
4	n	430	GLN
4	o	16	ASN

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Mol	Chain	Res	Type
4	o	39	ASN
4	o	98	GLN
4	o	338	ASN
4	o	439	ASN
1	w	23	ASN
1	w	192	ASN
1	w	268	GLN
1	w	281	GLN
1	w	319	ASN
1	w	332	ASN
1	w	385	ASN
1	x	107	ASN
1	x	213	HIS
1	x	306	ASN
1	x	329	GLN
1	x	332	ASN
1	x	338	GLN
1	x	381	ASN
1	y	16	ASN
1	y	130	GLN
1	y	213	HIS
1	y	245	ASN
1	y	383	GLN
1	y	387	GLN
1	z	22	ASN
1	z	105	ASN
1	z	155	GLN
1	z	157	ASN
1	z	197	ASN
1	z	280	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 [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

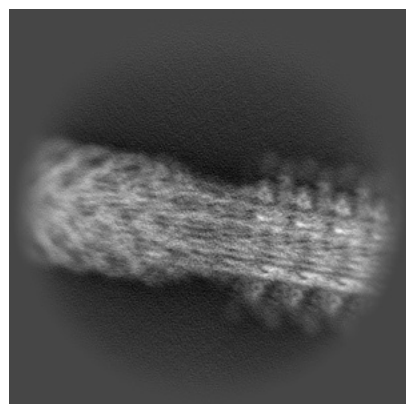
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-51493. These allow visual inspection of the internal detail of the map and identification of artifacts.

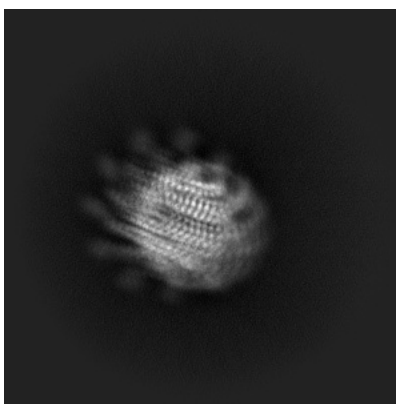
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

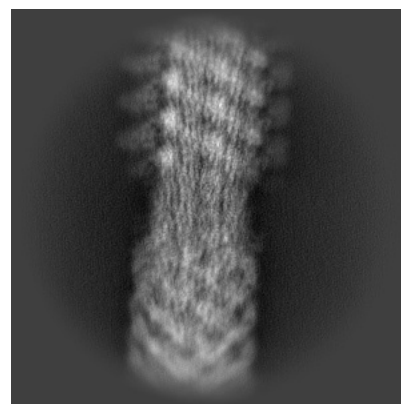
6.1.1 Primary map



X

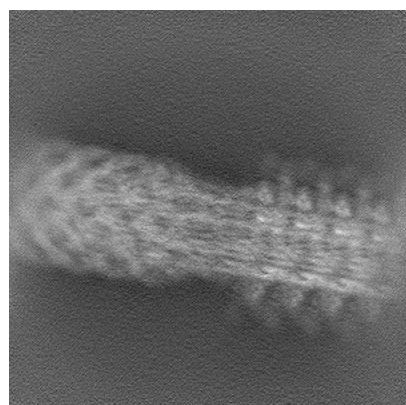


Y

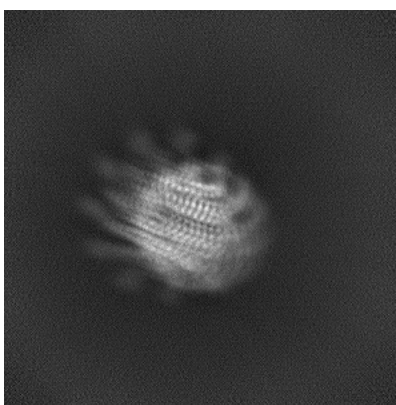


Z

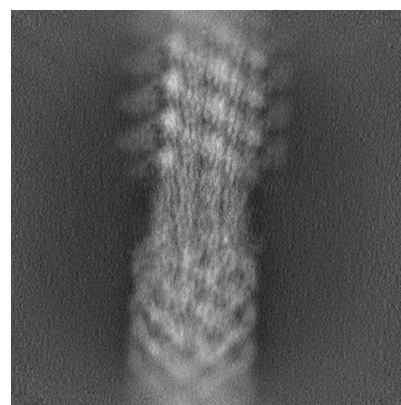
6.1.2 Raw map



X



Y

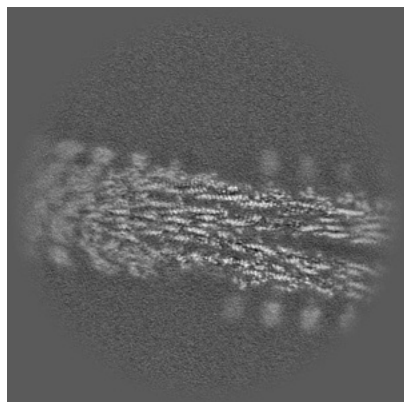


Z

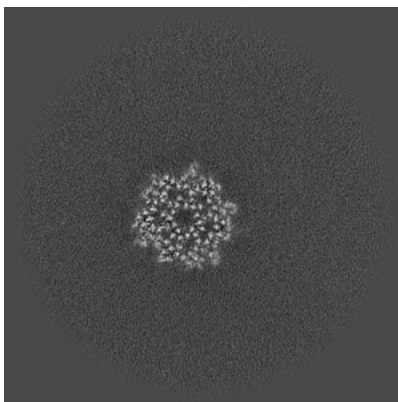
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

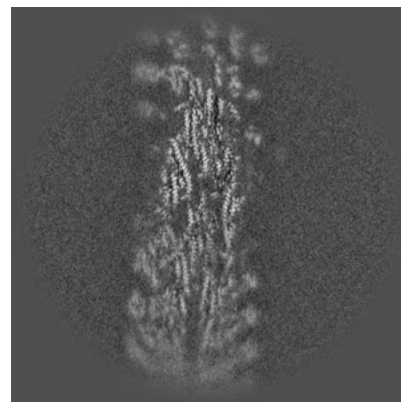
6.2.1 Primary map



X Index: 250

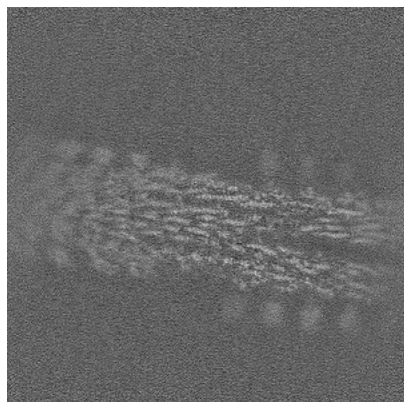


Y Index: 250

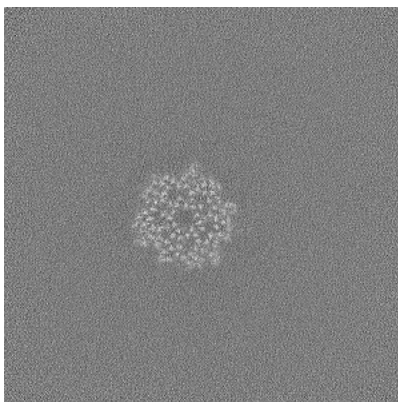


Z Index: 250

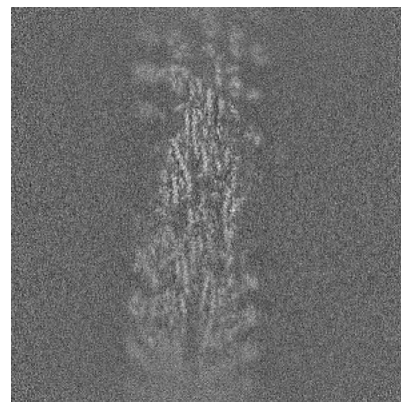
6.2.2 Raw map



X Index: 250



Y Index: 250

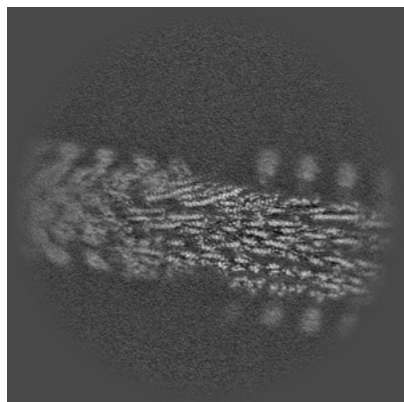


Z Index: 250

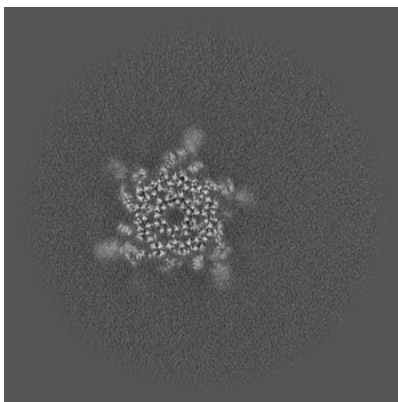
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

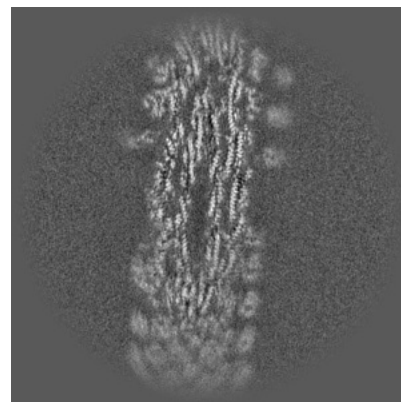
6.3.1 Primary map



X Index: 257

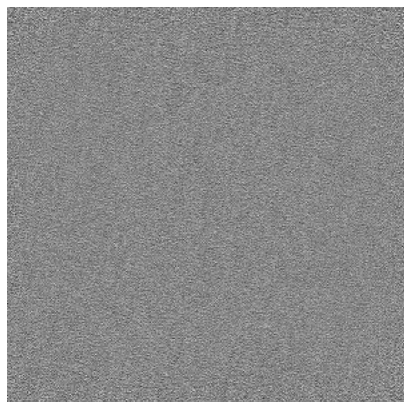


Y Index: 314

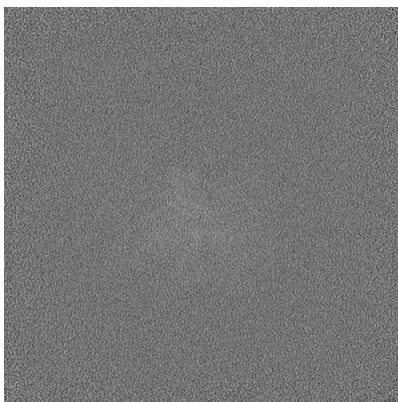


Z Index: 227

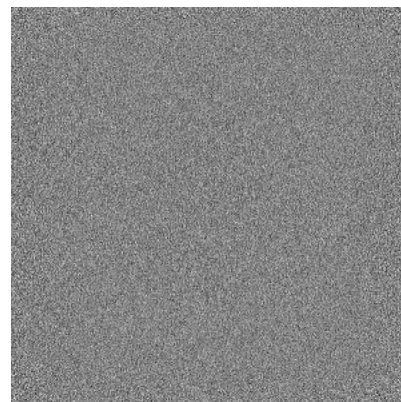
6.3.2 Raw map



X Index: 0



Y Index: 0

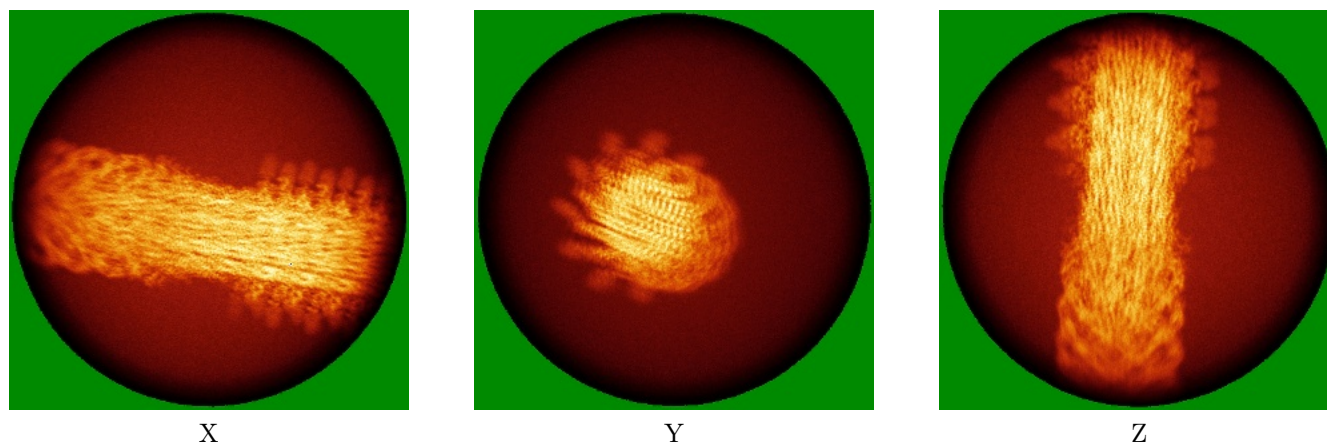


Z Index: 0

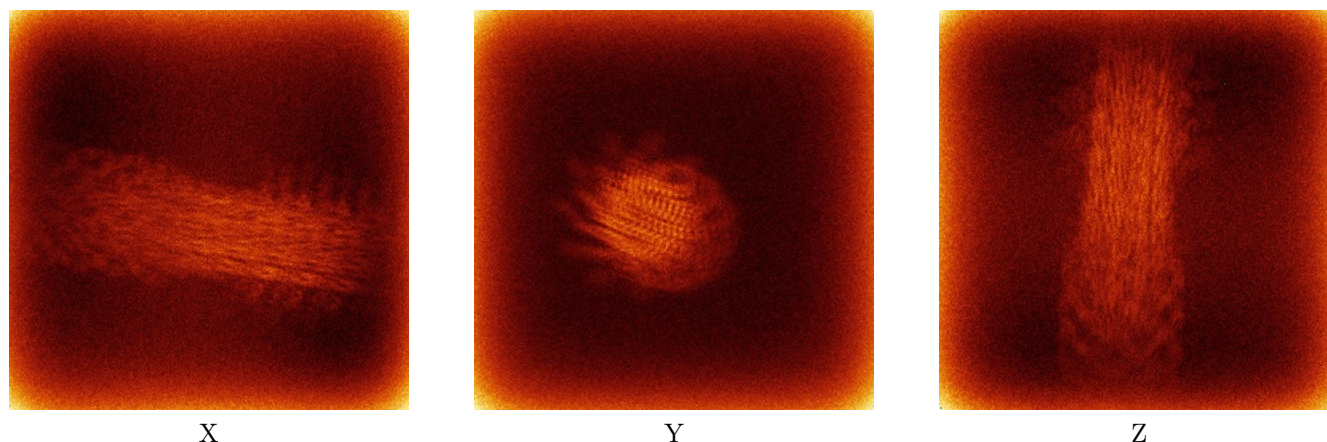
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map



6.4.2 Raw map



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](#)

This section was not generated.

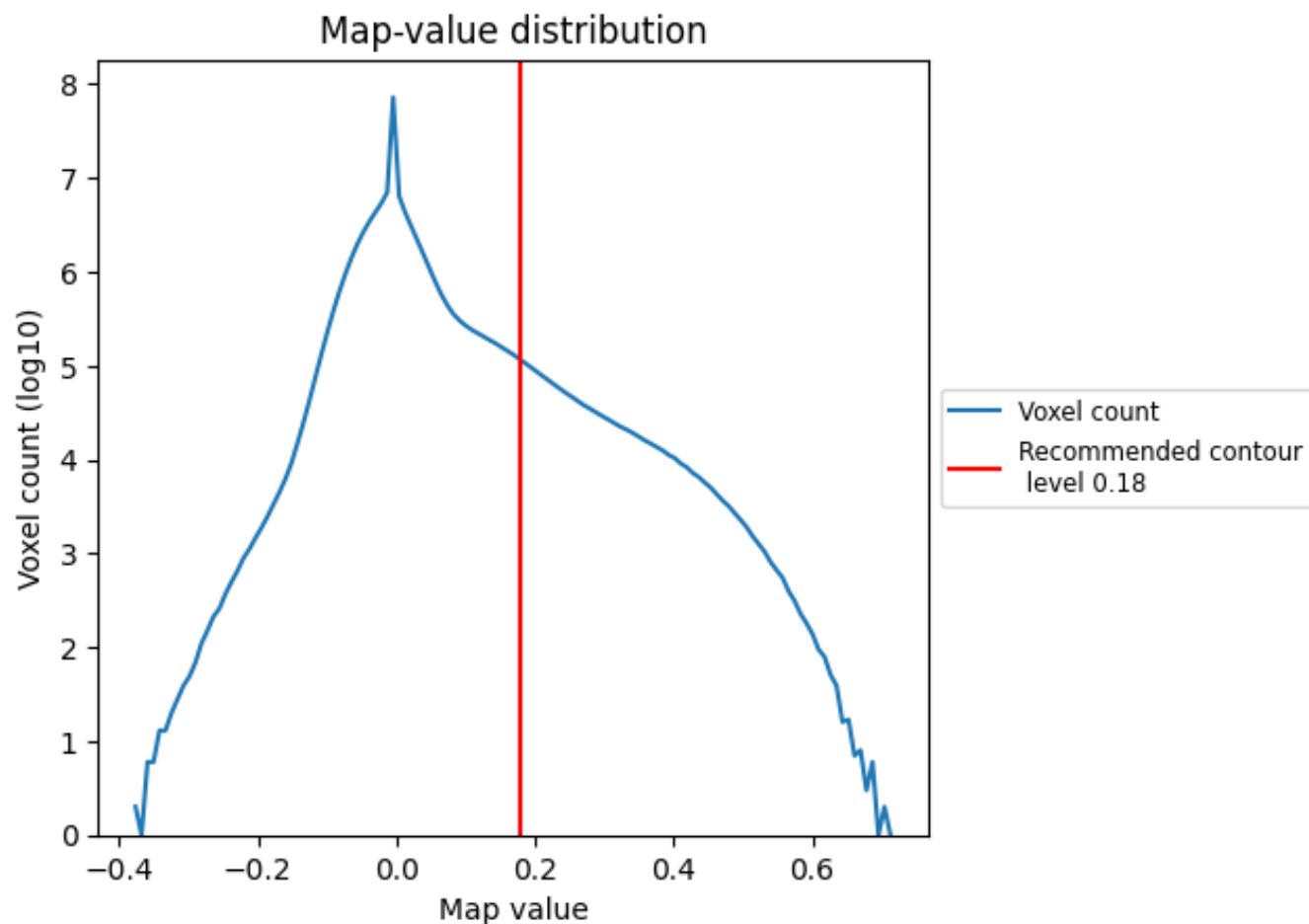
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

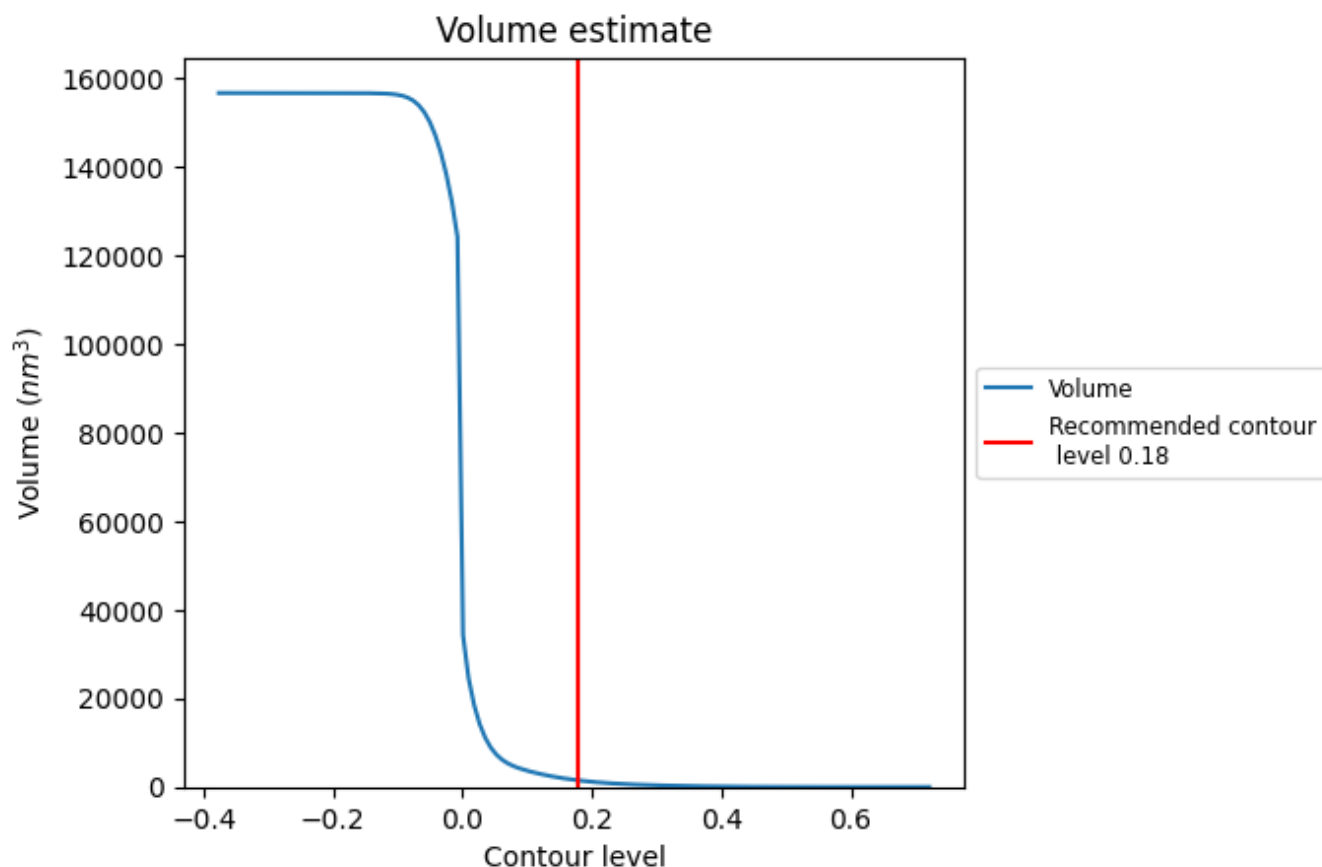
This section contains the results of statistical analysis of the map.

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.

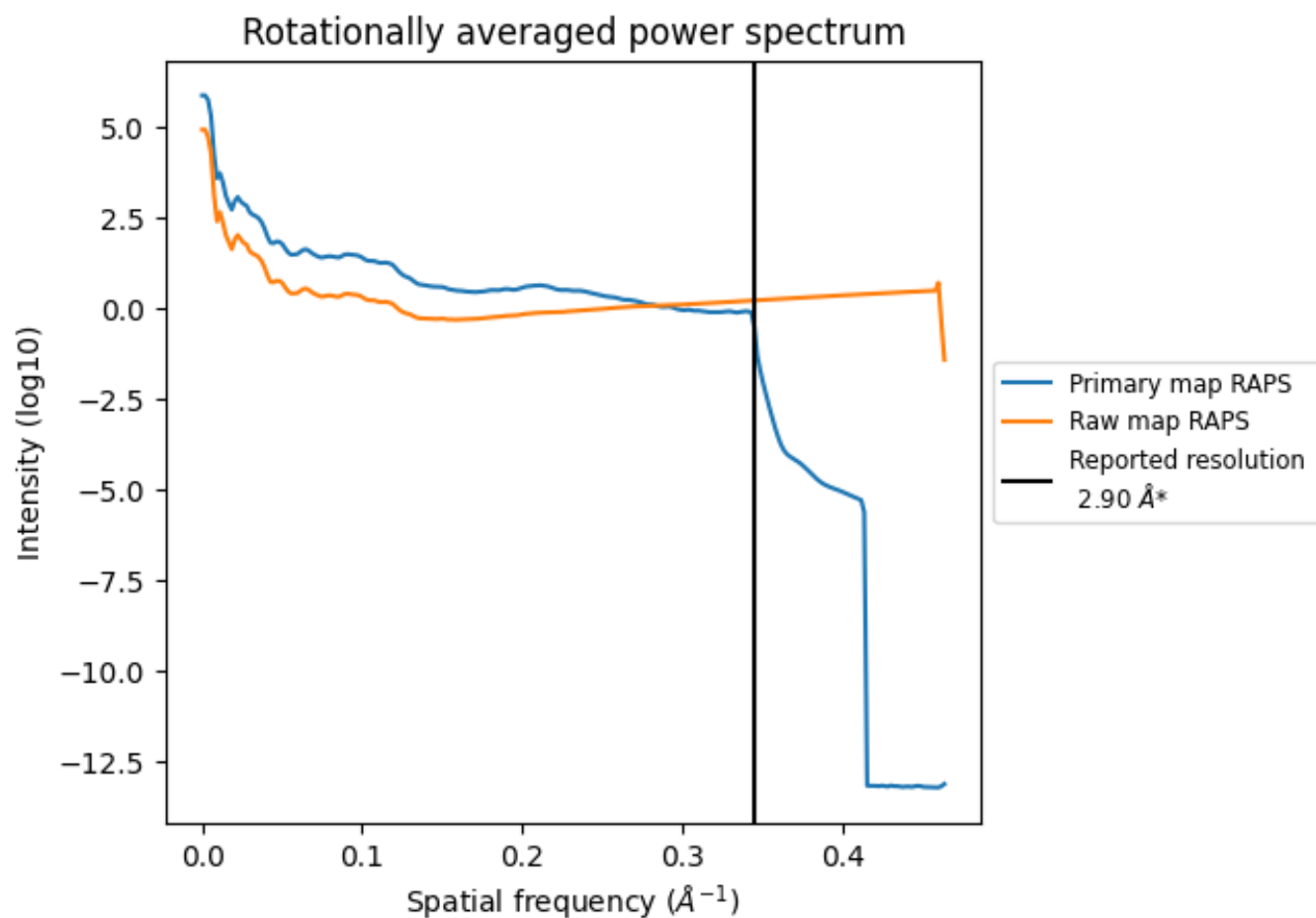
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1471 nm³; this corresponds to an approximate mass of 1329 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 ⓘ

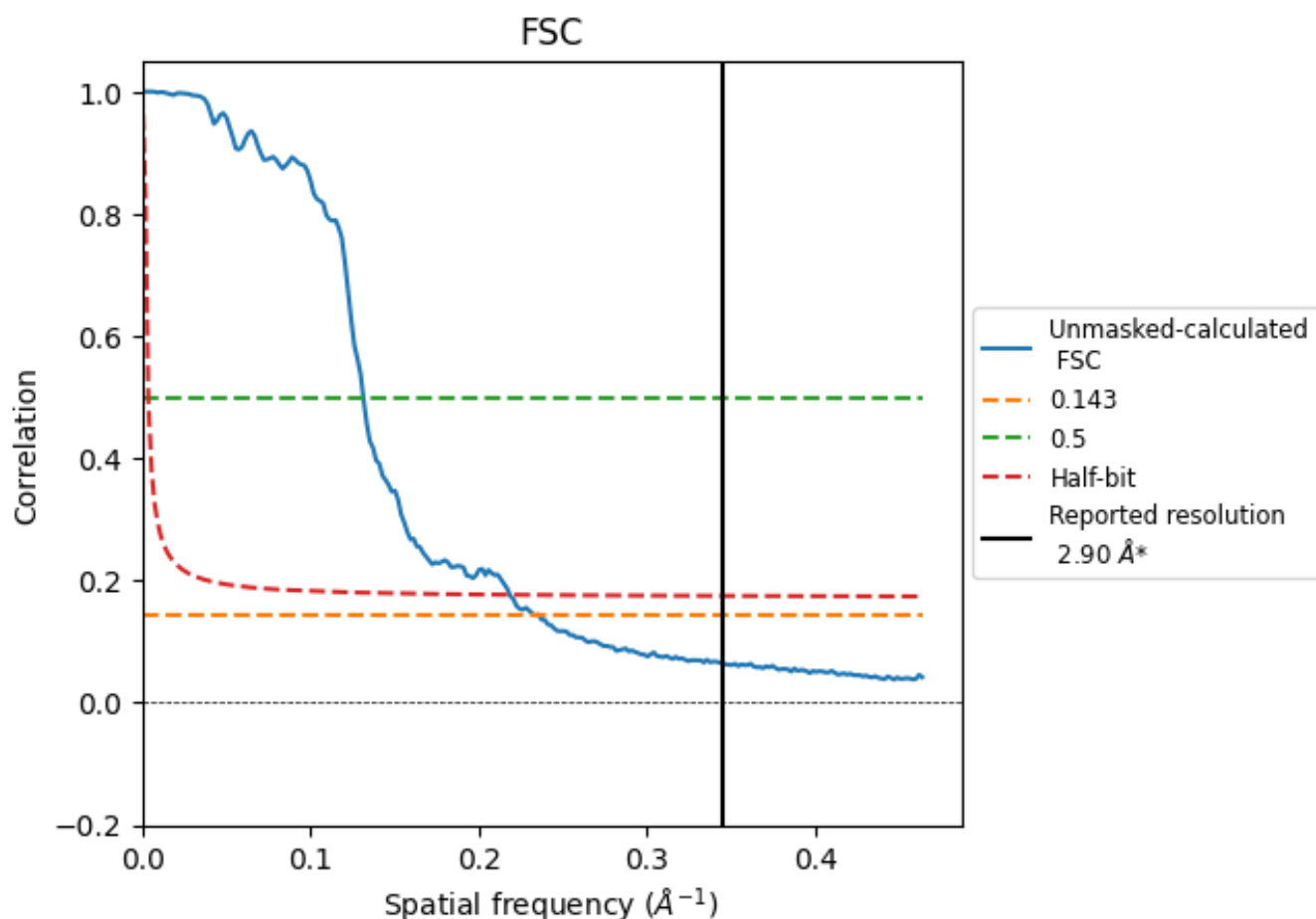


*Reported resolution corresponds to spatial frequency of 0.345 $\text{\AA}^{-1}$

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 $0.345 \text{ \AA}^{-1}$

8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.90	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	4.28	7.60	4.57

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.28 differs from the reported value 2.9 by more than 10 %

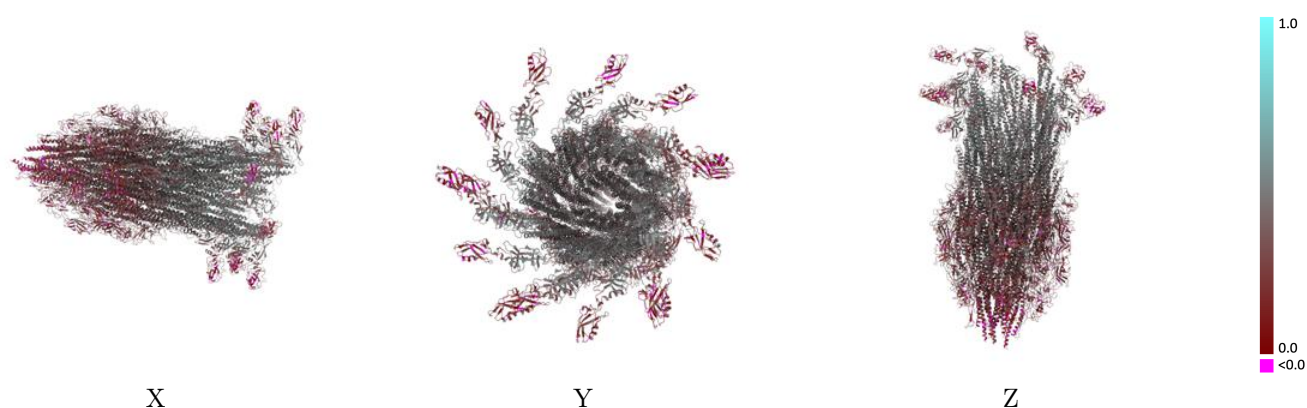
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-51493 and PDB model 9GO6. Per-residue inclusion information can be found in section 3 on page 8.

9.1 Map-model overlay [i](#)

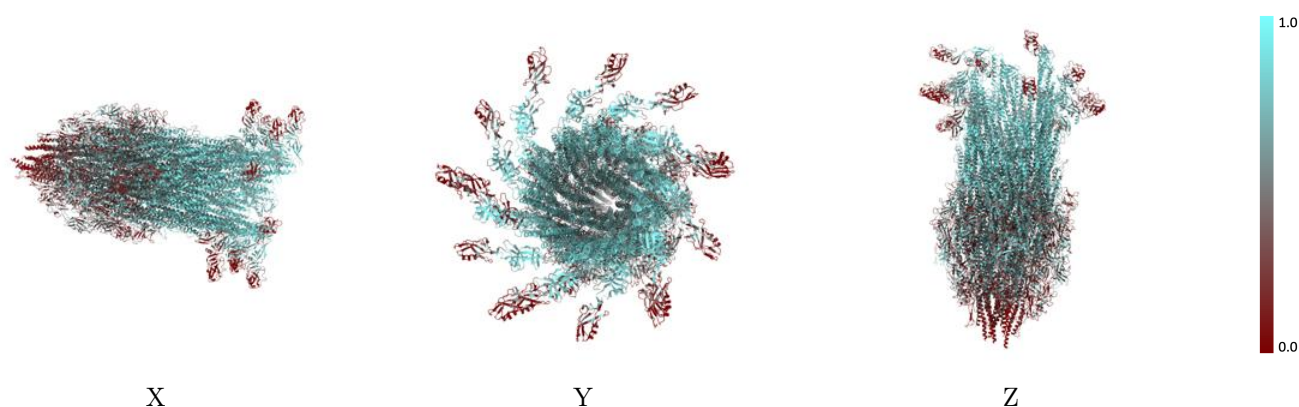
This section was not generated.

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



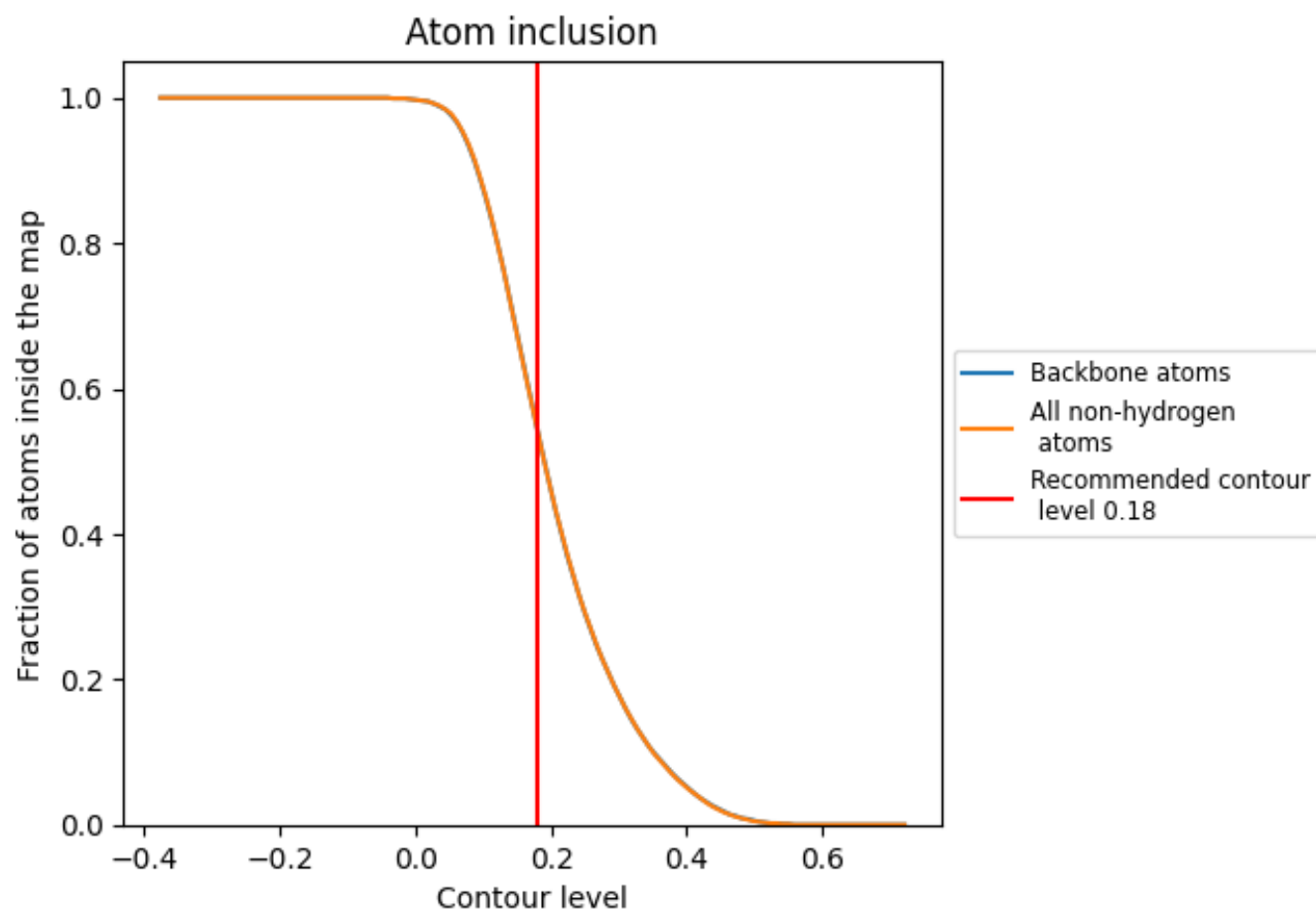
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.18).

9.4 Atom inclusion ⓘ



At the recommended contour level, 54% of all backbone atoms, 54% 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 (0.18) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.5420	 0.3490
1	 0.4310	 0.3030
2	 0.3670	 0.2460
3	 0.4200	 0.2880
4	 0.3200	 0.2300
5	 0.3850	 0.2650
6	 0.3070	 0.2320
7	 0.3430	 0.2750
8	 0.3900	 0.2620
9	 0.2720	 0.1930
A	 0.3700	 0.2830
B	 0.5380	 0.3250
C	 0.4460	 0.3070
D	 0.5890	 0.3610
E	 0.5320	 0.3380
F	 0.5780	 0.3610
G	 0.5480	 0.3300
H	 0.5130	 0.3390
I	 0.5090	 0.2960
J	 0.5010	 0.3390
K	 0.5500	 0.3070
L	 0.7320	 0.4140
M	 0.6990	 0.4170
N	 0.7400	 0.4280
O	 0.6230	 0.3320
P	 0.7510	 0.4370
Q	 0.6500	 0.3850
R	 0.7420	 0.4440
S	 0.6870	 0.3980
T	 0.7360	 0.4380
U	 0.7080	 0.4060
V	 0.6950	 0.4200
a	 0.6620	 0.4100
b	 0.6530	 0.4190
c	 0.4440	 0.3590



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Chain	Atom inclusion	Q-score
d	 0.6640	 0.4080
e	 0.6630	 0.4160
f	 0.4980	 0.3840
g	 0.6610	 0.4060
h	 0.6550	 0.4180
i	 0.5580	 0.3960
j	 0.6710	 0.4060
k	 0.6730	 0.4130
l	 0.6180	 0.3960
m	 0.6680	 0.4020
n	 0.6710	 0.4120
o	 0.6350	 0.4050
w	 0.3450	 0.2620
x	 0.3550	 0.2420
y	 0.3890	 0.3100
z	 0.3660	 0.2350