



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 05:33 PM UTC

PDB ID : 8SUG / pdb_00008sug
EMDB ID : EMD-40765
Title : Cryo-EM structure of the wild type *P. aeruginosa* flagellar filament
Authors : Kreutzberger, M.A.; Nedeljkovic, M.; Egelman, E.H.; Sundberg, E.J.
Deposited on : 2023-05-12
Resolution : 4.20 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:

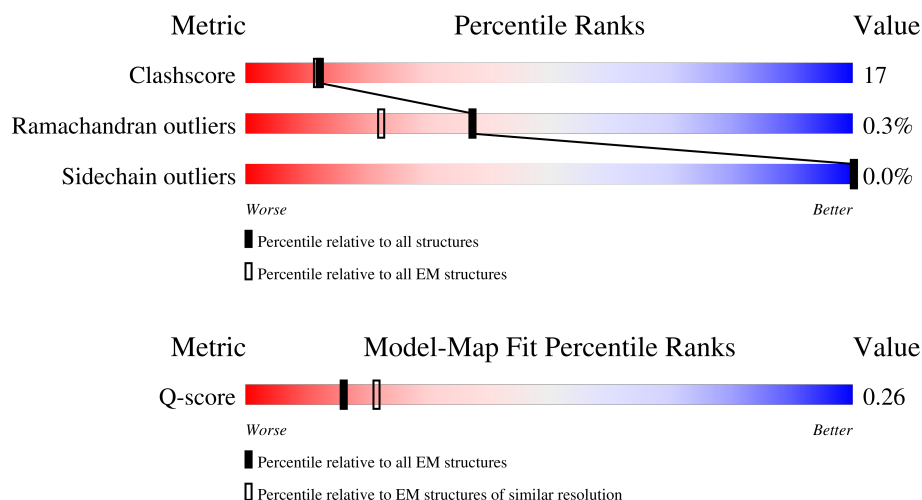
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & 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 4.20 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	5410 (3.70 - 4.70)

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

Mol	Chain	Length	Quality of chain
1	A	484	21% 61% 38%
1	B	484	29% 65% 34%
1	C	484	29% 65% 35%
1	D	484	15% 63% 36% .

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Mol	Chain	Length	Quality of chain
1	E	484	15% 67% 33%
1	F	484	20% 68% 32%
1	G	484	14% 66% 33%
1	H	484	9% 64% 35%
1	I	484	13% 62% 37%
1	J	484	15% 65% 34%
1	K	484	10% 63% 37%
1	L	484	11% 66% 33%
1	M	484	15% 67% 33%
1	N	484	9% 63% 37%
1	O	484	10% 69% 30%
1	P	484	11% 68% 32%
1	Q	484	9% 64% 35%
1	R	484	7% 71% 29%
1	S	484	12% 69% 31%
1	T	484	10% 67% 33%
1	U	484	8% 66% 34%
1	V	484	11% 69% 31%
1	W	484	7% 63% 37%
1	X	484	10% 67% 33%
1	Y	484	17% 68% 32%
1	Z	484	10% 66% 34%
1	a	484	11% 61% 38%
1	b	484	14% 64% 36%
1	c	484	14% 64% 35%

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Mol	Chain	Length	Quality of chain
1	d	484	12%68%32%
1	e	484	25%64%36%
1	f	484	22%61%39%
1	g	484	17%65%35%

2 Entry composition [i](#)

There is only 1 type of molecule in this entry. The entry contains 113355 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called B-type flagellin.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	B	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	C	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	D	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	E	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	F	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	G	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	H	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	I	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	J	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	K	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	L	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	M	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	N	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	O	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	P	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		
1	Q	484	Total	C	N	O	S	1	0
			3435	2072	626	736	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	R	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	S	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	T	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	U	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	V	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	W	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	X	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	Y	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	Z	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	a	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	b	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	c	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	d	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	e	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	f	484	Total 3435	C 2072	N 626	O 736	S 1	1	0
1	g	484	Total 3435	C 2072	N 626	O 736	S 1	1	0

There are 33 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	420	ALA	GLY	conflict	UNP P72151
B	420	ALA	GLY	conflict	UNP P72151
C	420	ALA	GLY	conflict	UNP P72151
D	420	ALA	GLY	conflict	UNP P72151
E	420	ALA	GLY	conflict	UNP P72151
F	420	ALA	GLY	conflict	UNP P72151
G	420	ALA	GLY	conflict	UNP P72151

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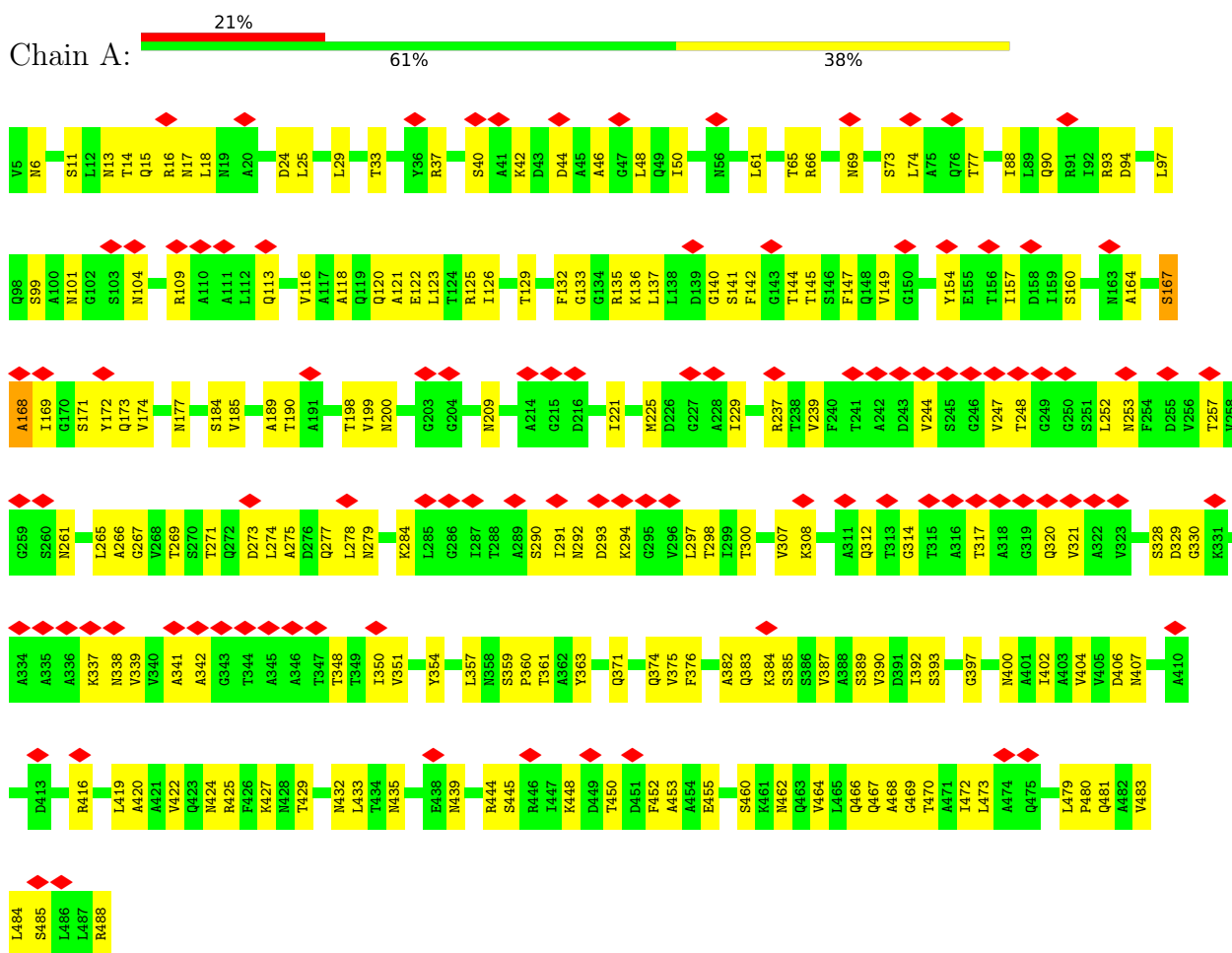
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Chain	Residue	Modelled	Actual	Comment	Reference
H	420	ALA	GLY	conflict	UNP P72151
I	420	ALA	GLY	conflict	UNP P72151
J	420	ALA	GLY	conflict	UNP P72151
K	420	ALA	GLY	conflict	UNP P72151
L	420	ALA	GLY	conflict	UNP P72151
M	420	ALA	GLY	conflict	UNP P72151
N	420	ALA	GLY	conflict	UNP P72151
O	420	ALA	GLY	conflict	UNP P72151
P	420	ALA	GLY	conflict	UNP P72151
Q	420	ALA	GLY	conflict	UNP P72151
R	420	ALA	GLY	conflict	UNP P72151
S	420	ALA	GLY	conflict	UNP P72151
T	420	ALA	GLY	conflict	UNP P72151
U	420	ALA	GLY	conflict	UNP P72151
V	420	ALA	GLY	conflict	UNP P72151
W	420	ALA	GLY	conflict	UNP P72151
X	420	ALA	GLY	conflict	UNP P72151
Y	420	ALA	GLY	conflict	UNP P72151
Z	420	ALA	GLY	conflict	UNP P72151
a	420	ALA	GLY	conflict	UNP P72151
b	420	ALA	GLY	conflict	UNP P72151
c	420	ALA	GLY	conflict	UNP P72151
d	420	ALA	GLY	conflict	UNP P72151
e	420	ALA	GLY	conflict	UNP P72151
f	420	ALA	GLY	conflict	UNP P72151
g	420	ALA	GLY	conflict	UNP P72151

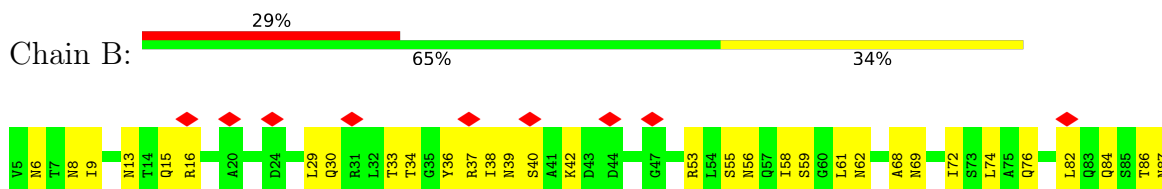
3 Residue-property plots

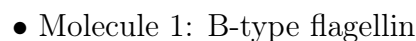
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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



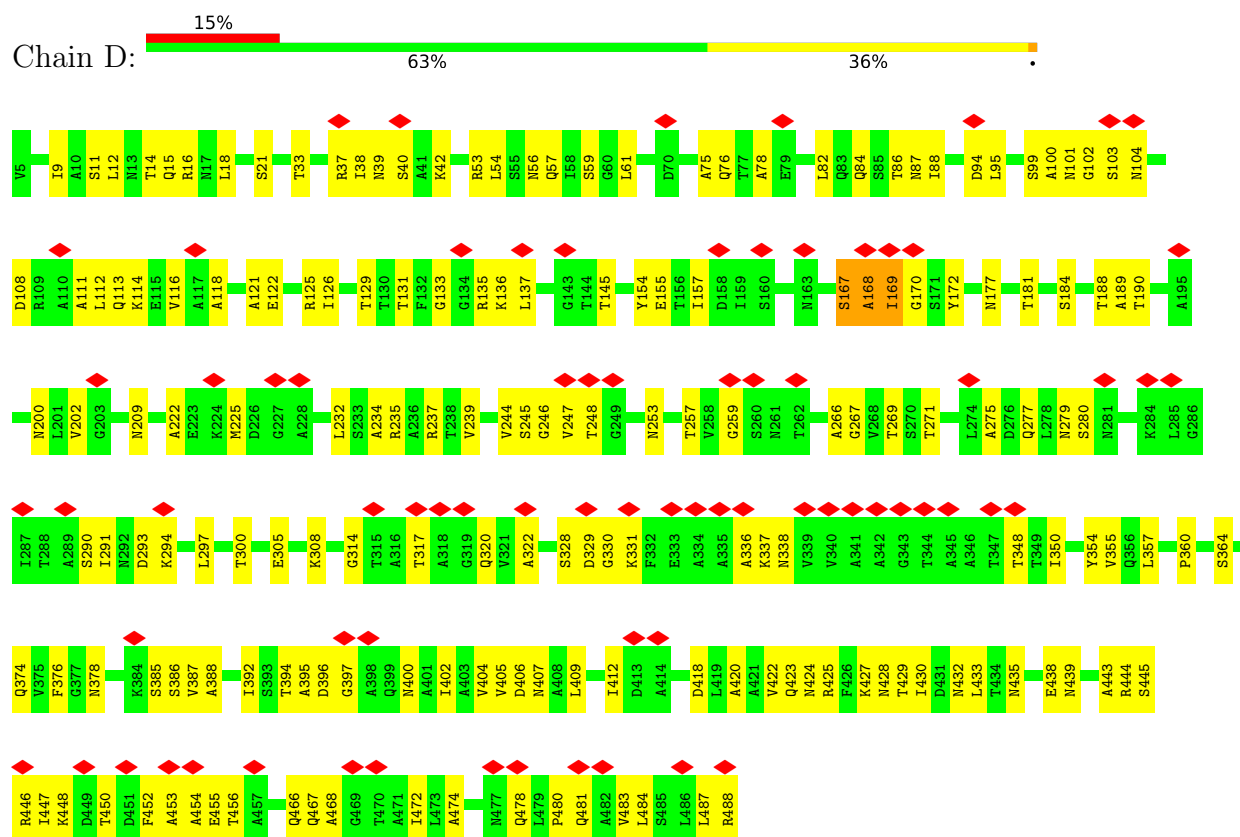
• Molecule 1: B-type flagellin





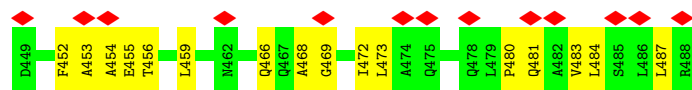
L465	L466	T313	S245	A166	I88	V5
Q467	Q468	G314	G246	S167	L89	N6
A468	S389	T315	V247	A168	Q90	I9
G469	A316	A316	T248	I169	R93	S11
T470	T317	T317	G249	G170	D94	T14
A471	A318	A318	G250	S171	S99	Q15
T472	G319	G319	N253	Q173	A100	L18
L473	Q320	F254	F254	M177	N101	S22
A474	V321	G178	D255	G178	G102	N23
Q475	A322	A179	V256	A199	S103	N26
A476	V323	G180	T257	G180	N104	T27
N477	K324	T181	V258	T181	R109	L29
Q478	V325	S184	G259	S184	A110	Q30
L479	D329	V185	S260	V185	A111	R31
P480	G330	N261	G261	A196	Q113	L32
Q481	K331	T262	V263	G187	K114	T33
A482	E333	S264	S264	T188	E115	T34
L483	E334	L265	L265	A189	V116	R37
S485	A334	A266	G267	T190	A117	I38
L486	A335	S192	G193	A191	A118	N39
L487	A336	V266	T269	S192	A121	S40
R488	K337	V269	S270	G193	E122	A41
	N338	G270	T271	I194	L123	K42
	V339	A195	T272	A195	T124	D43
	V340	T272	G272	S196	R125	D44
	A341	D273	L274	V199	I126	A45
	A342	G343	L275	N200	S127	L54
	G343	T344	A275	L201	D128	Q57
	A345	A345	L276	V202	T129	I58
	A346	A346	N279	G206	T130	L61
	T347	T347	K284	N209	F132	T65
	T348	T349	L285	T210	G133	A68
	I350	I350	G286	A211	G134	N69
	G353	G353	A289	T212	L137	D70
	Y354	V355	S290	A213	L138	I72
	Q356	Q356	T291	A214	D139	T77
	L357	L357	N292	D216	G143	A78
	N358	S359	D293	K224	Q148	E79
	S360	P360	K294	M295	V149	L82
	S364	S364	G295	D226	G150	Q83
	G367	T368	V296	G227	S151	Q84
	T368	T368	V296	G227	M152	S85
	Q373	Q373	L297	A228	E155	T86
	V375	V375	T298	A234	T156	N87
	F376	F376	T299	R235	I157	
	G377	N378	A302	A236	D158	
	Q383	Q384	E305	R237	N163	
	K384	K384	N306	T241	A164	
			V307	A242	S165	
			K308	D243		
			F309	V244		
			G310			
			A311			
			Q312			

- Molecule 1: B-type flagellin

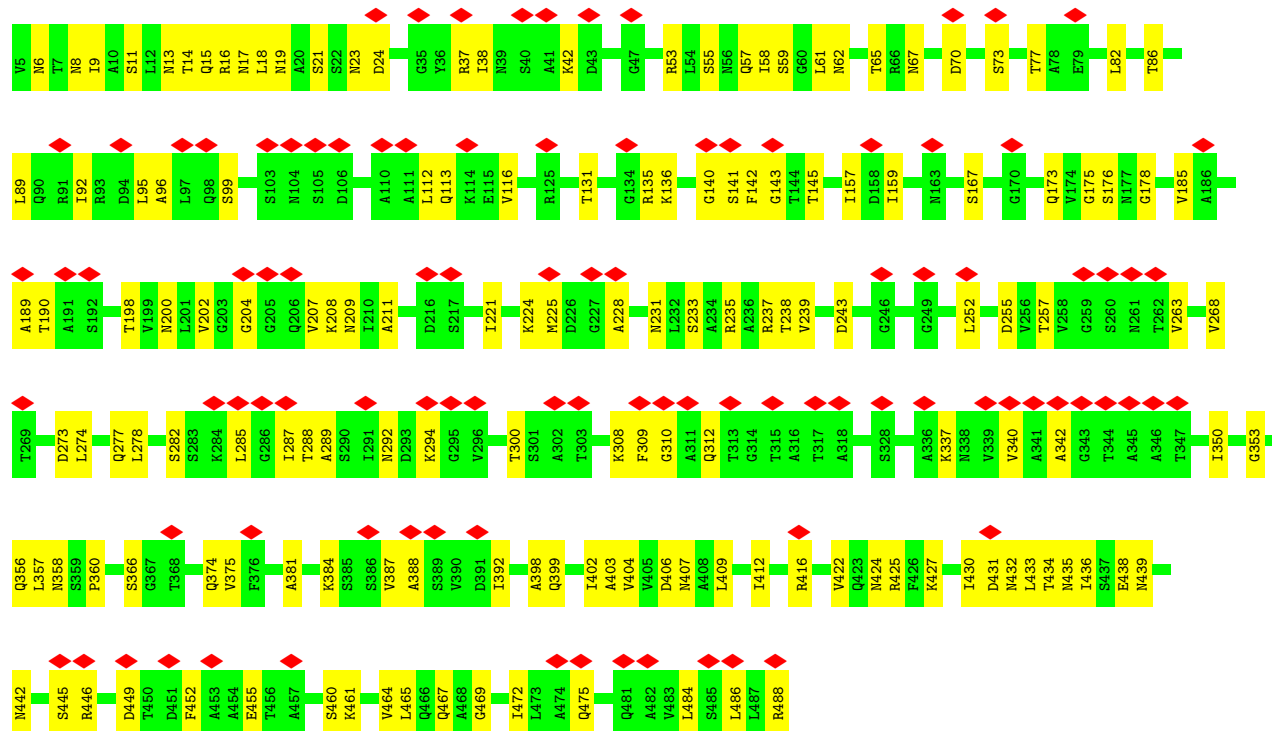


- Molecule 1: B-type flagellin

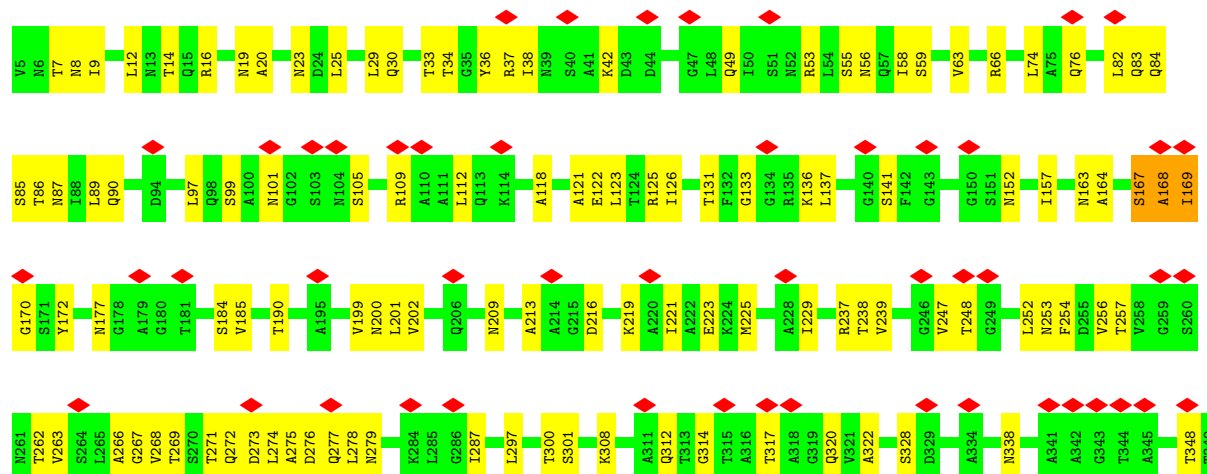


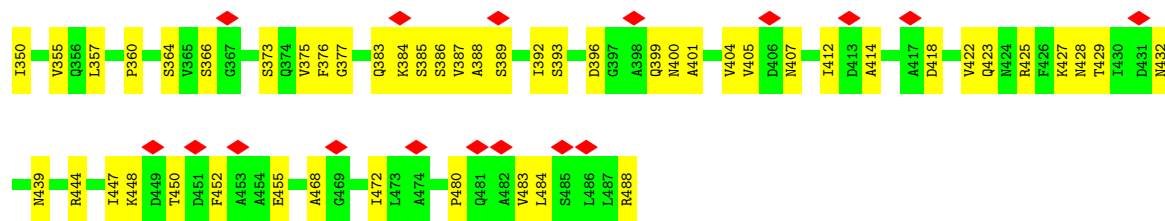


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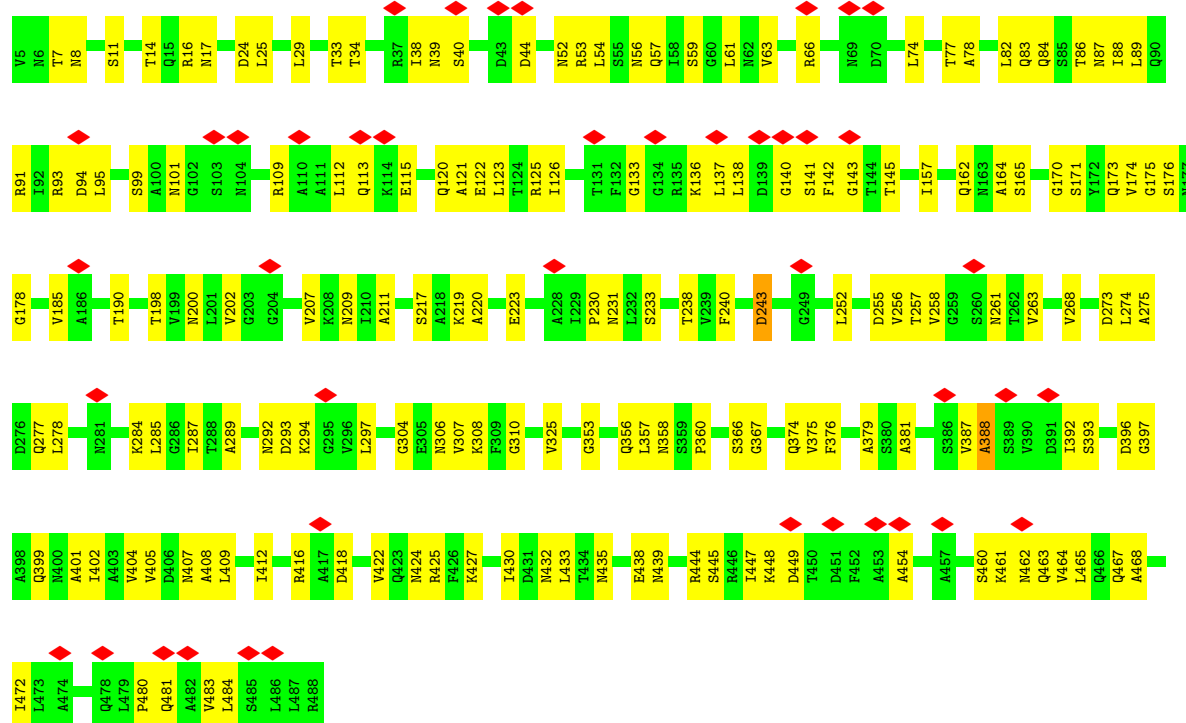


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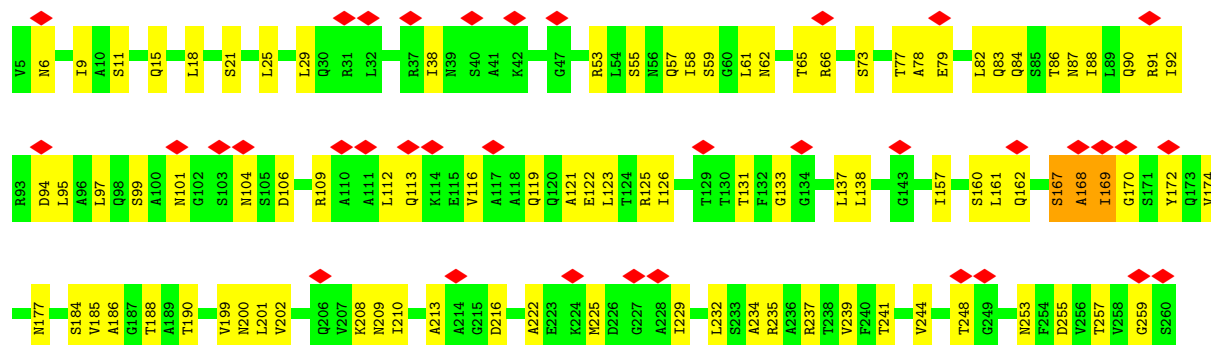


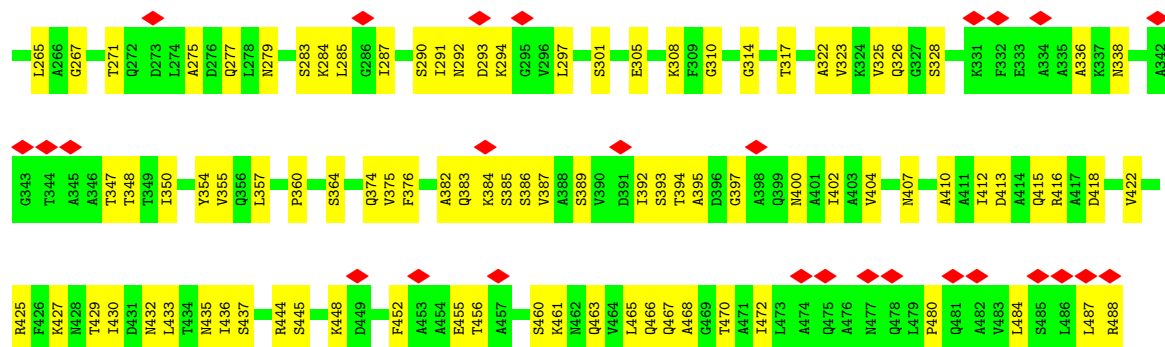


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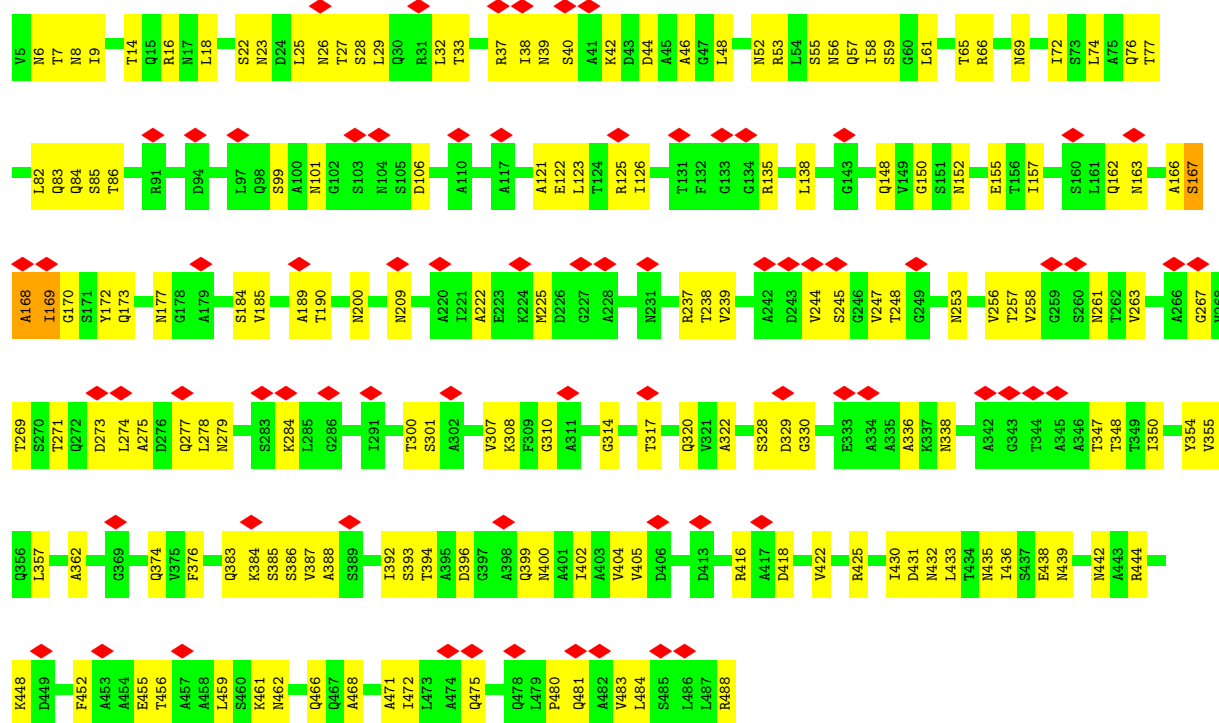


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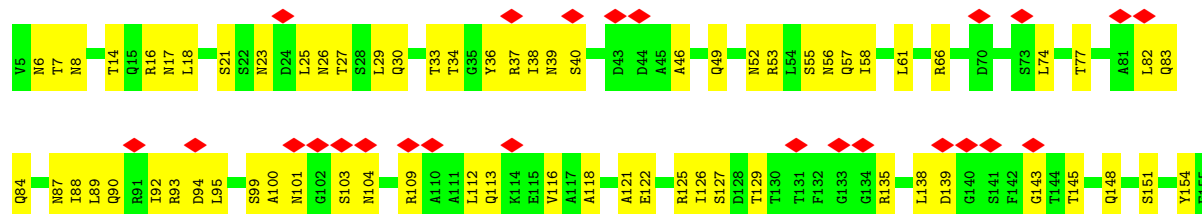


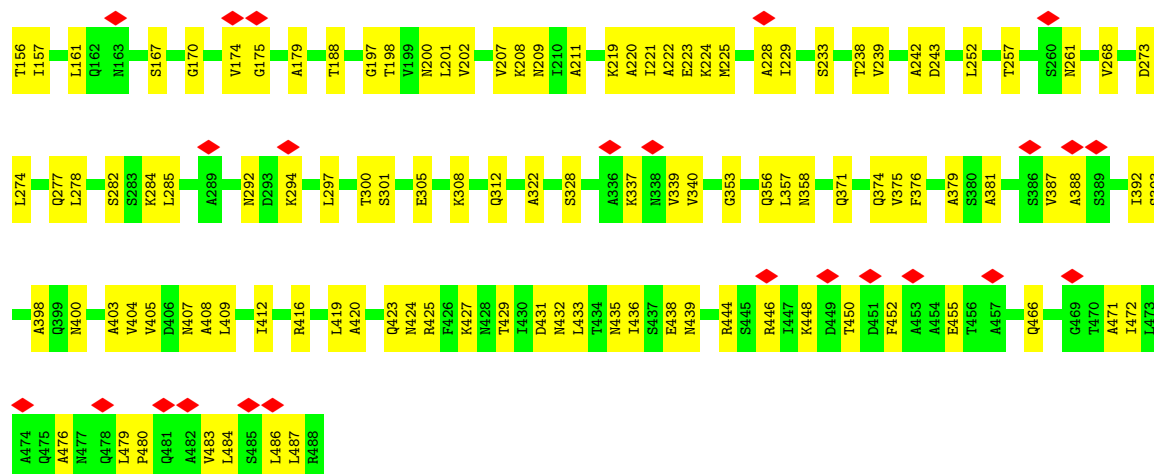


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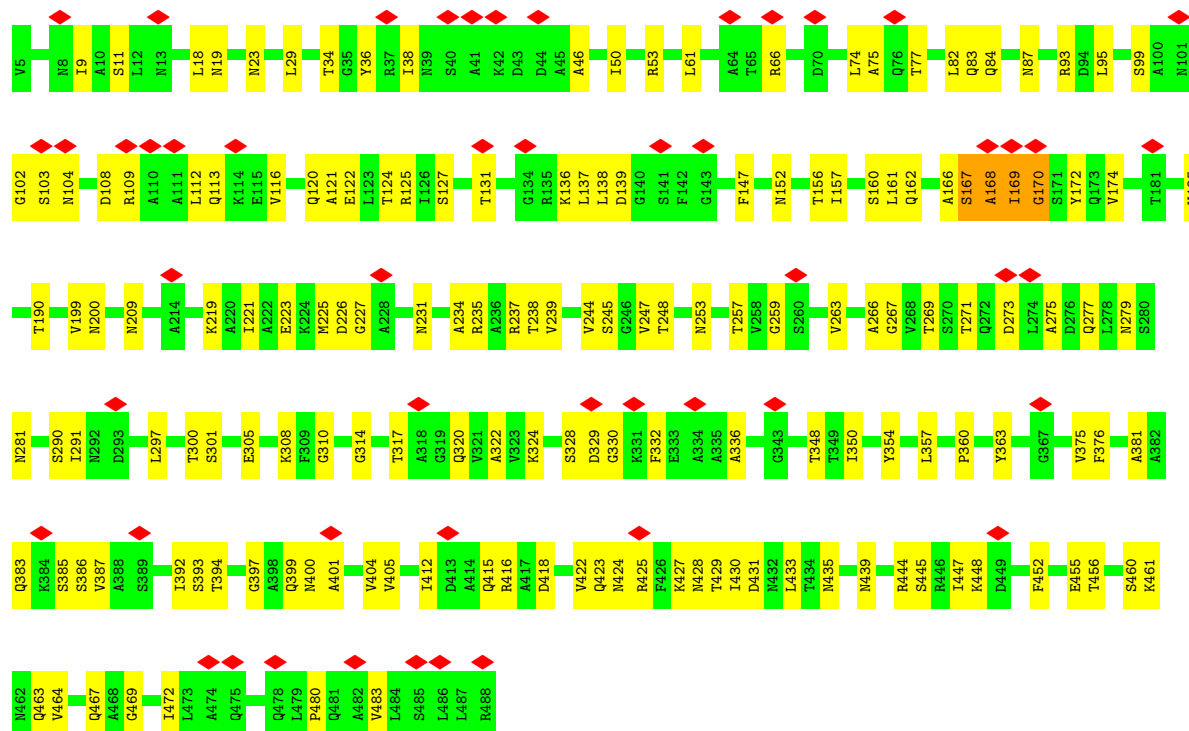


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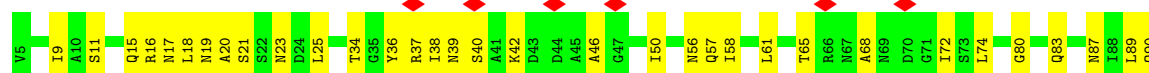


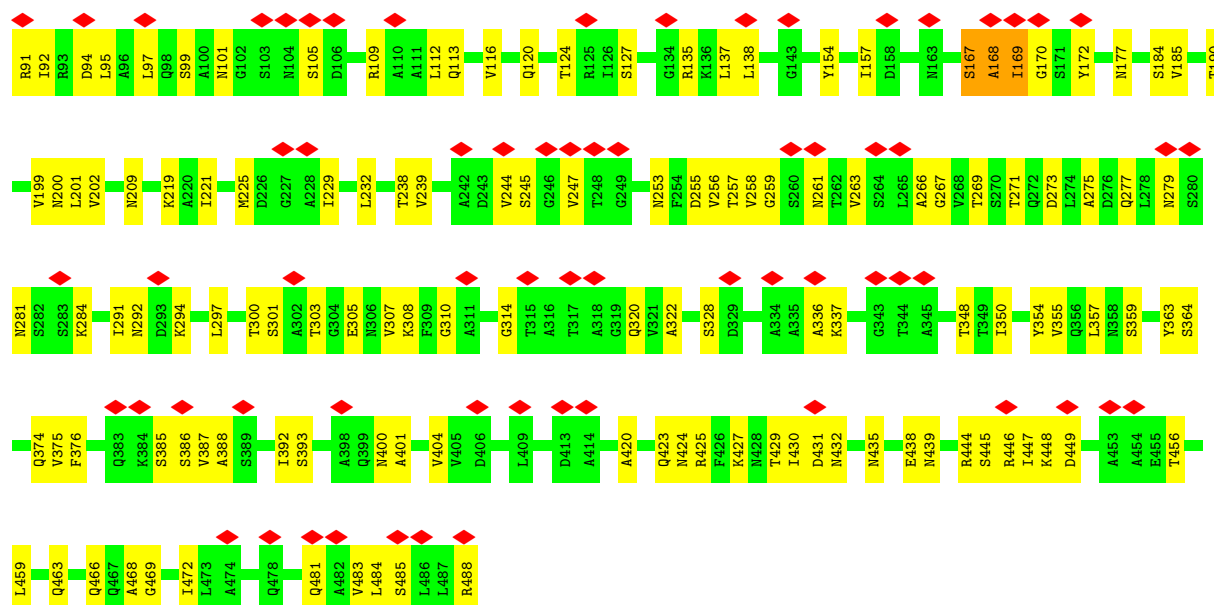


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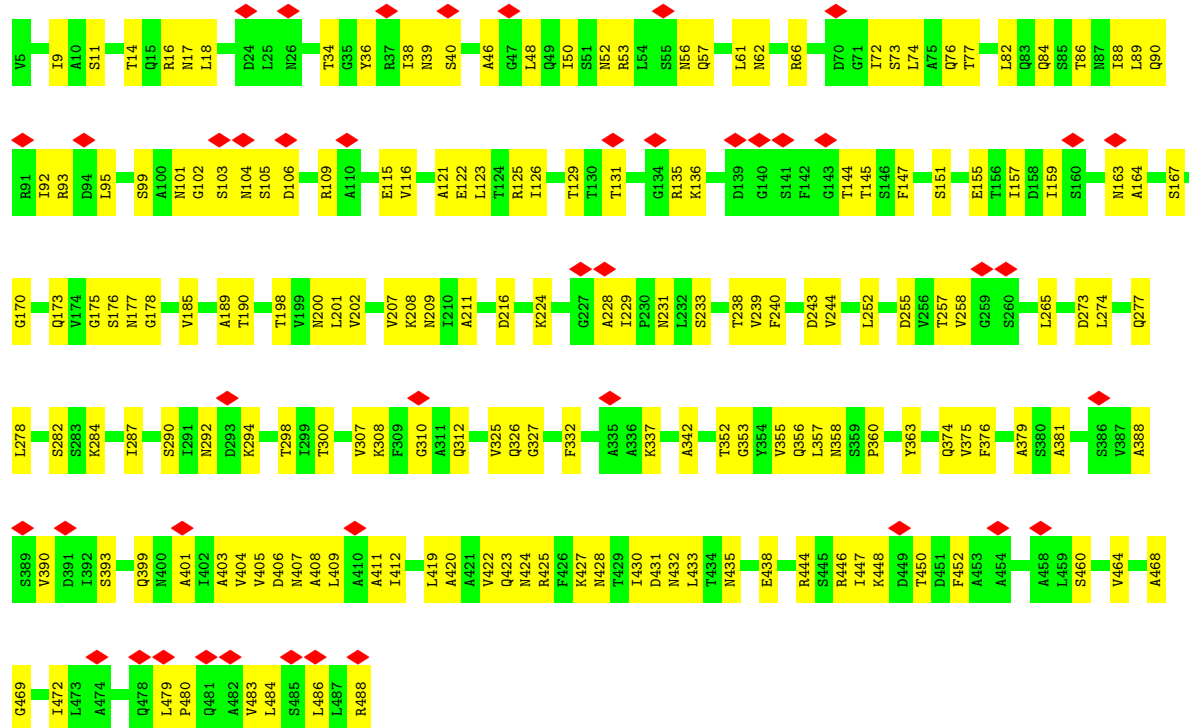


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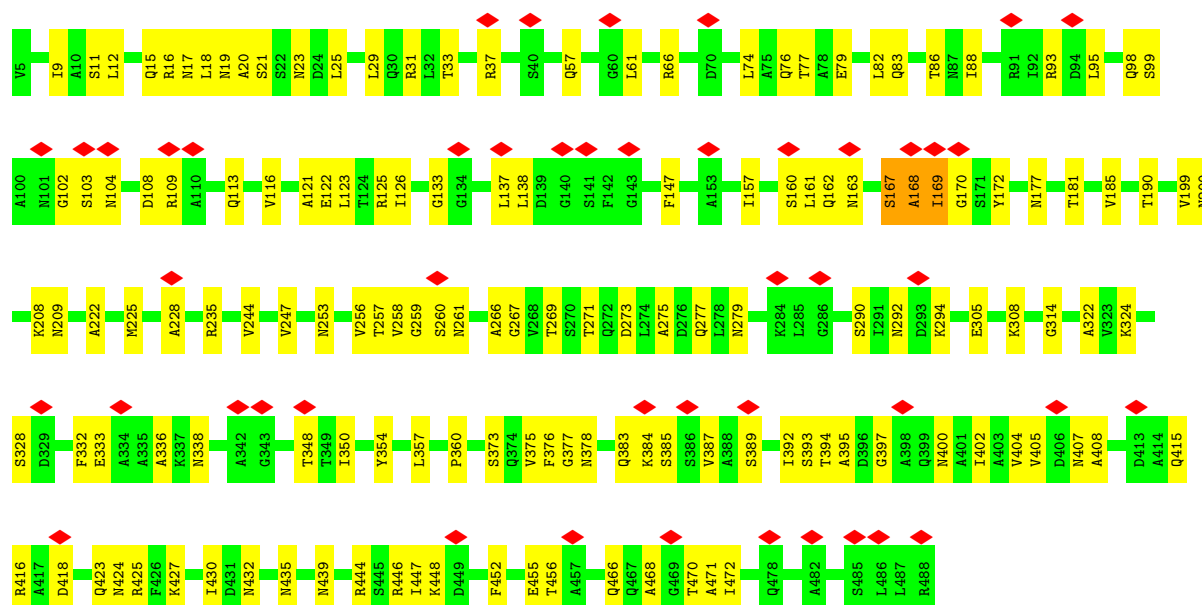


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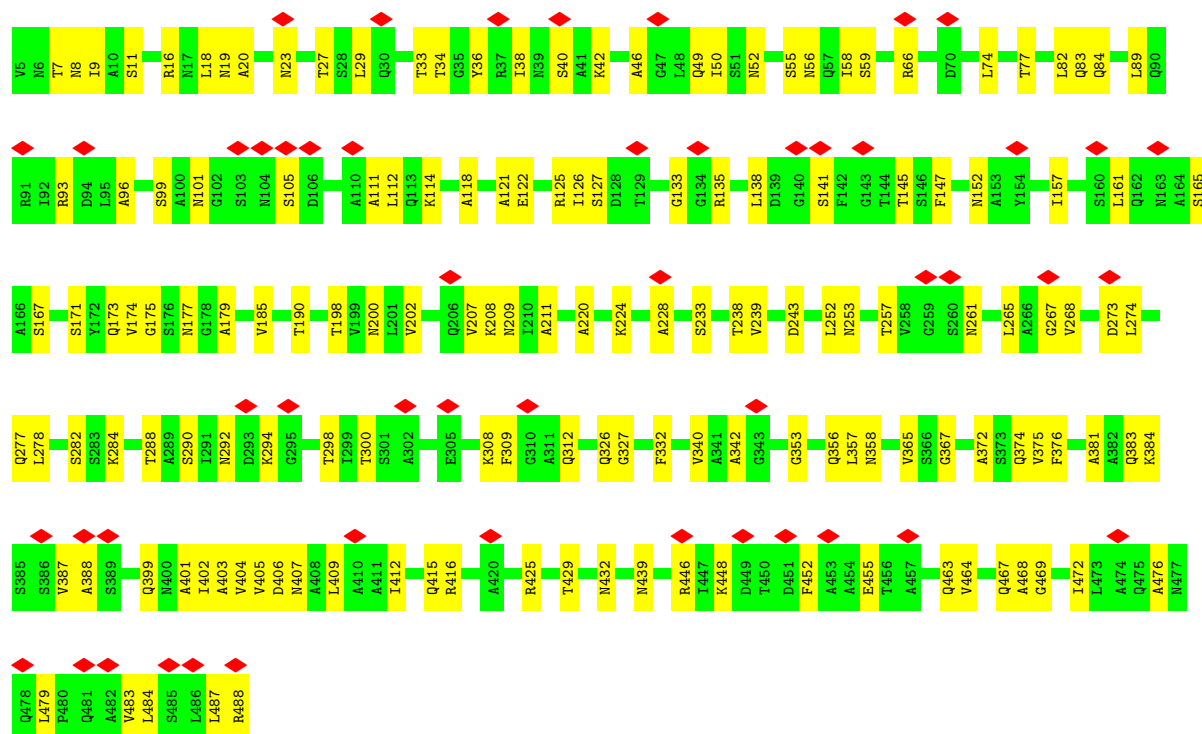


• Molecule 1: B-type flagellin



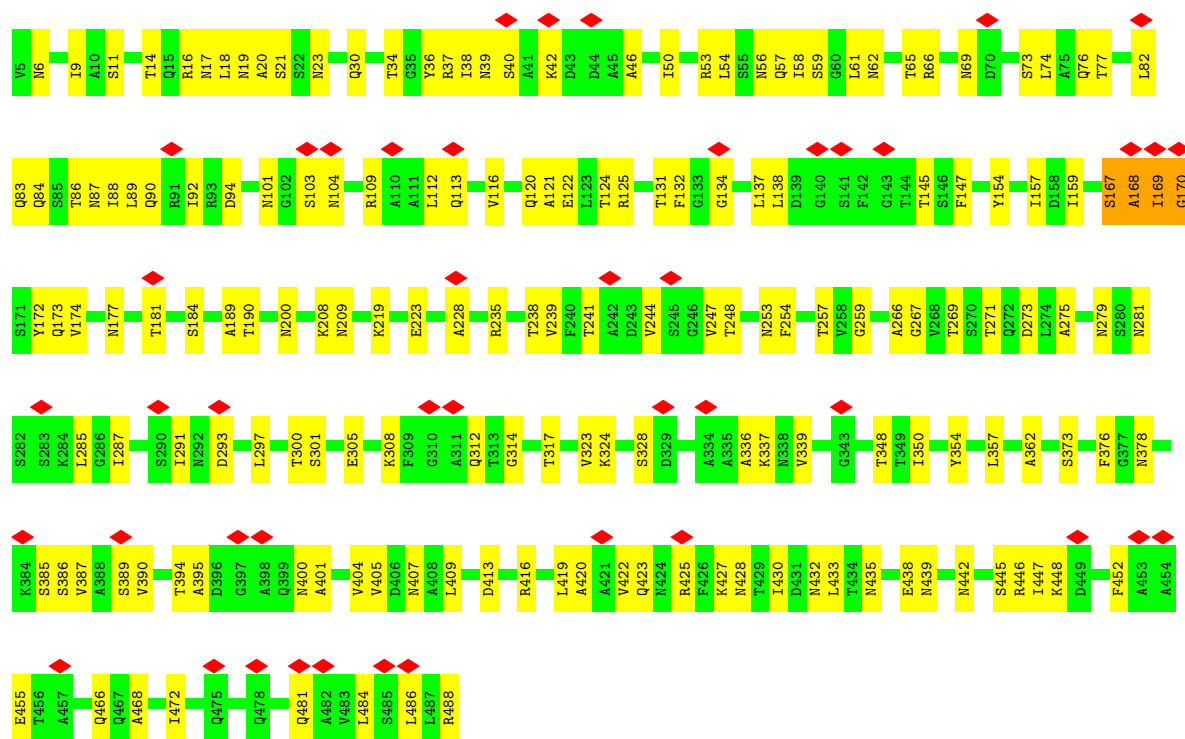


• Molecule 1: B-type flagellin

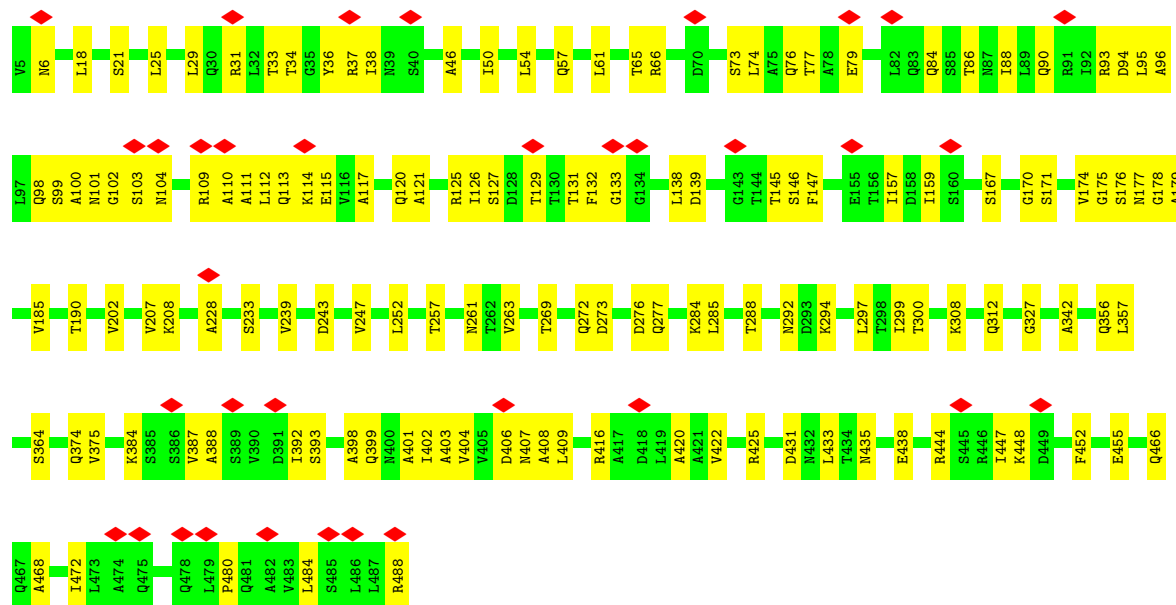


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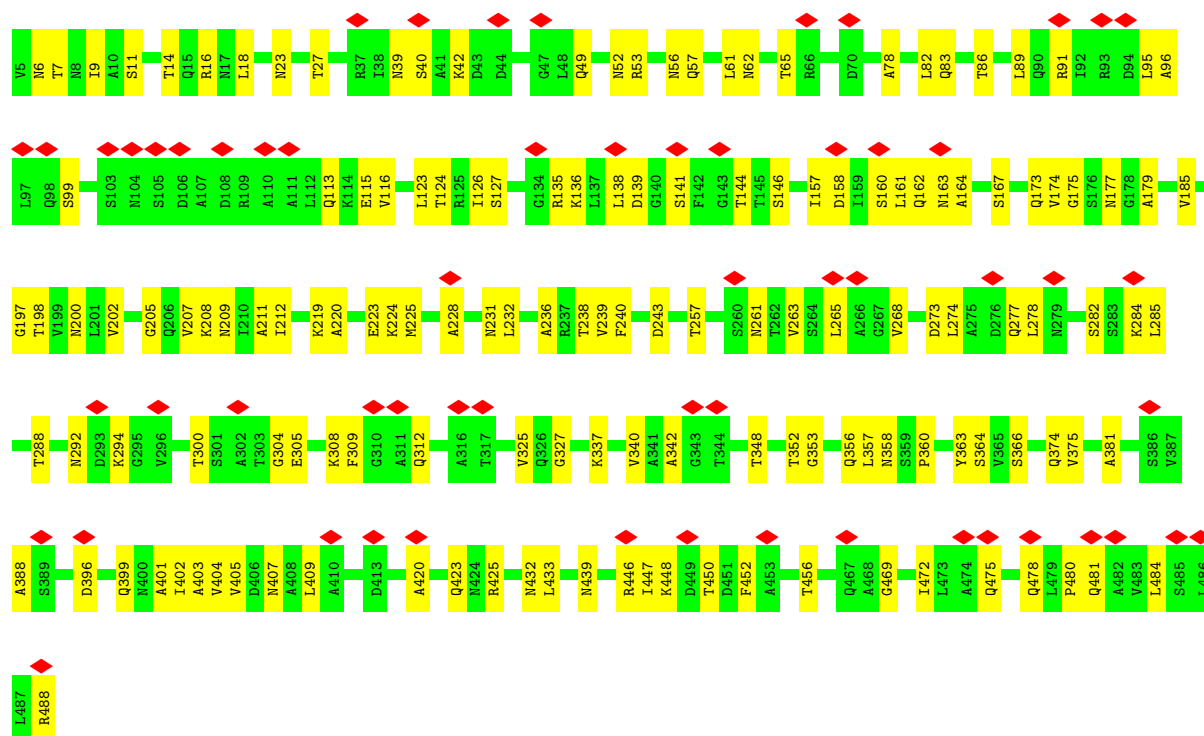


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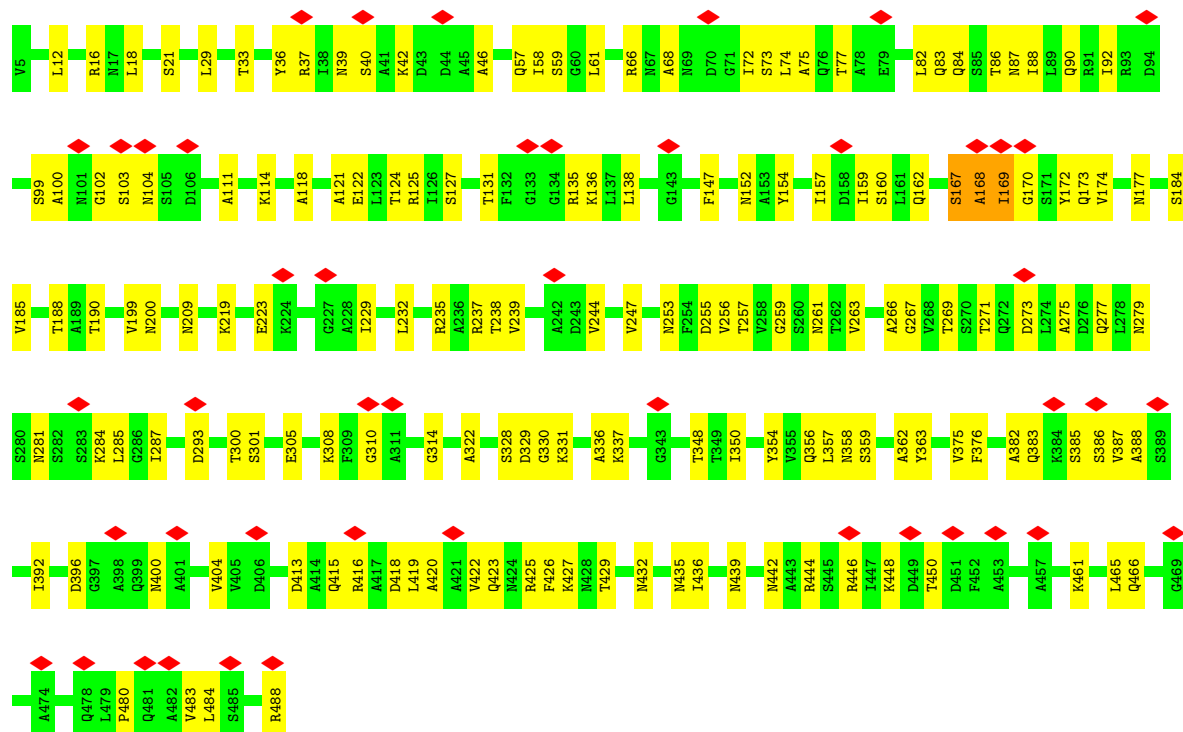


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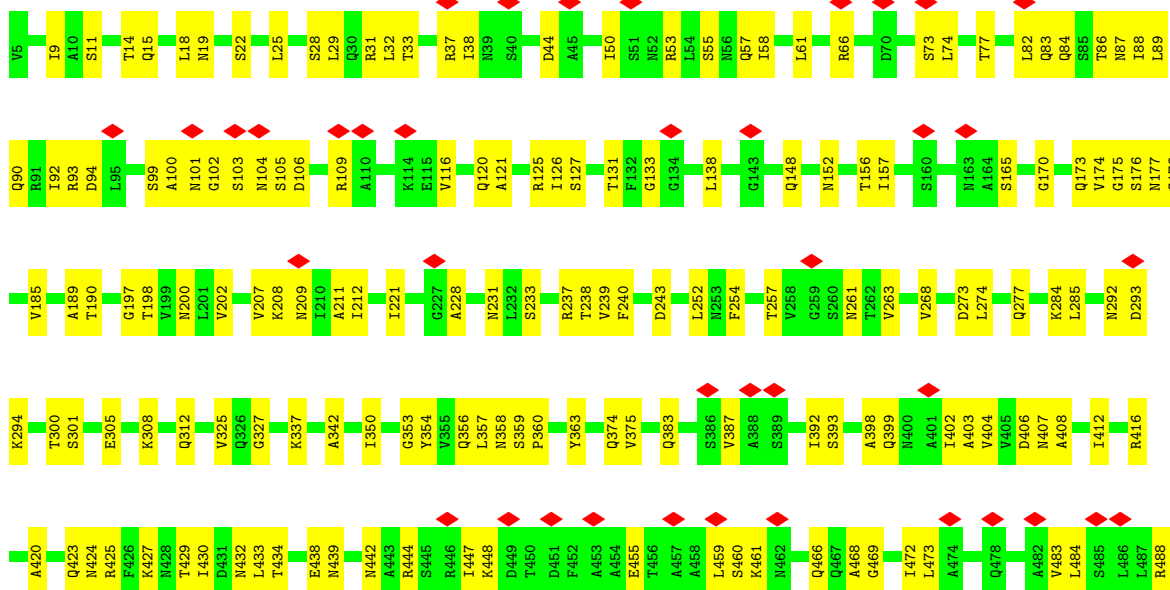




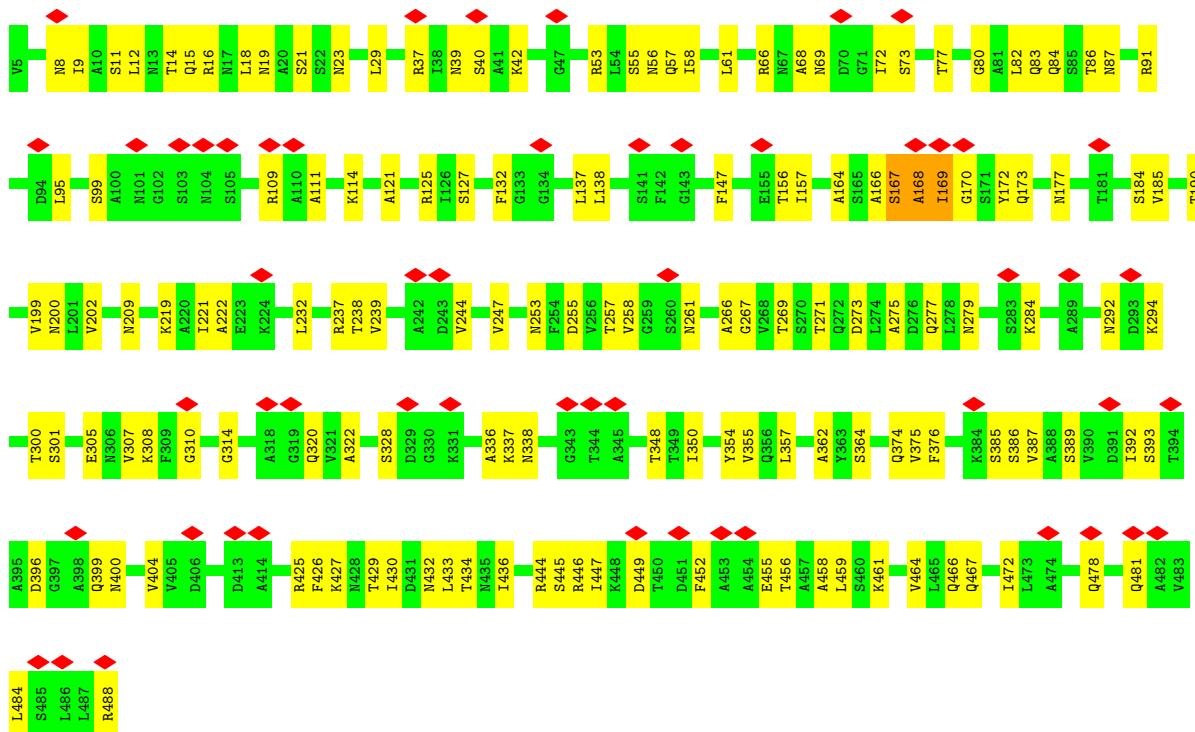
• Molecule 1: B-type flagellin



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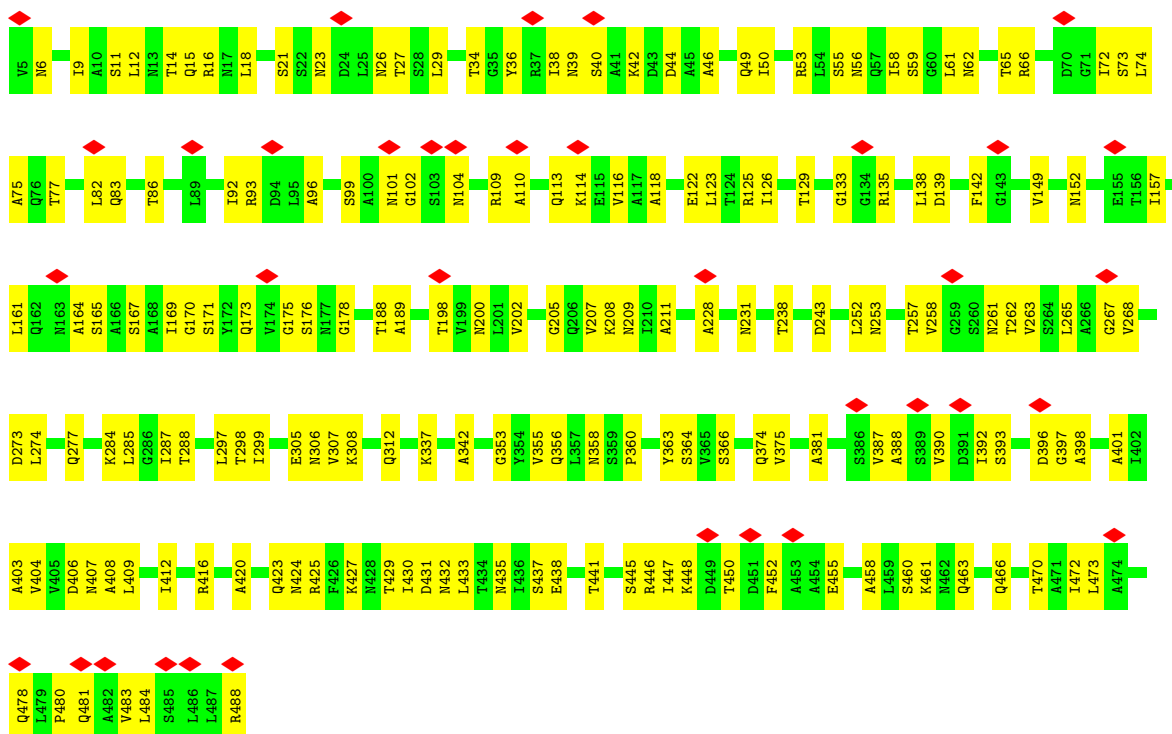


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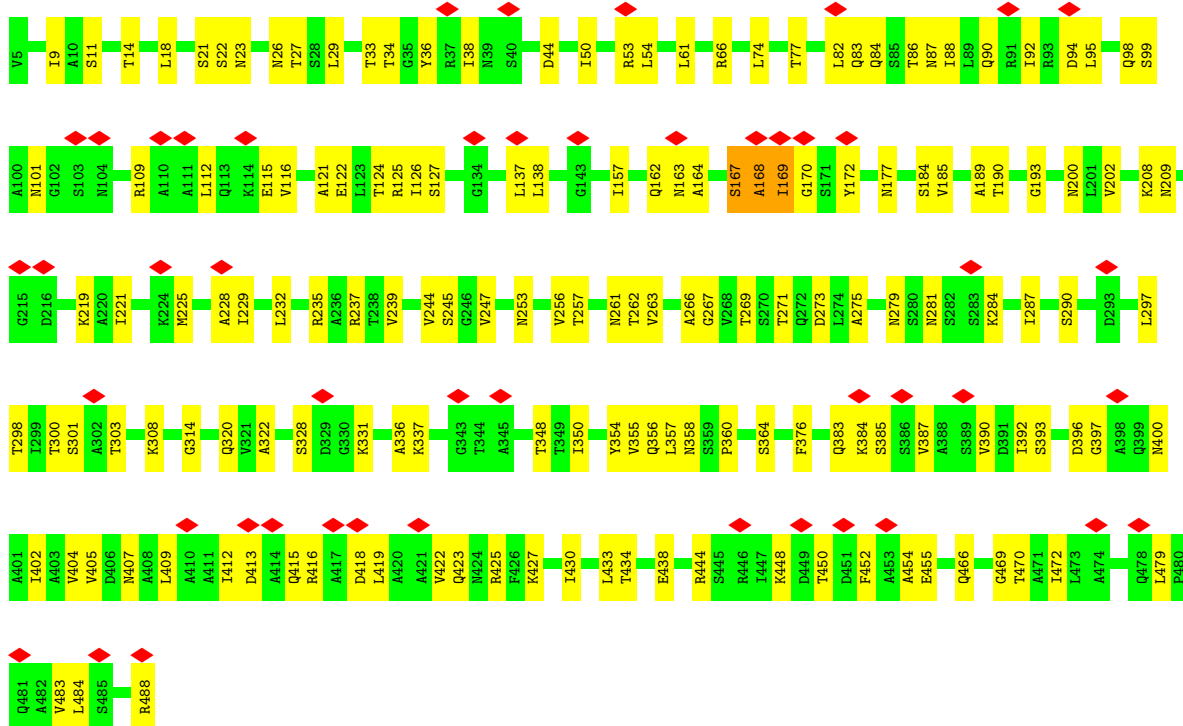


• Molecule 1: B-type flagellin

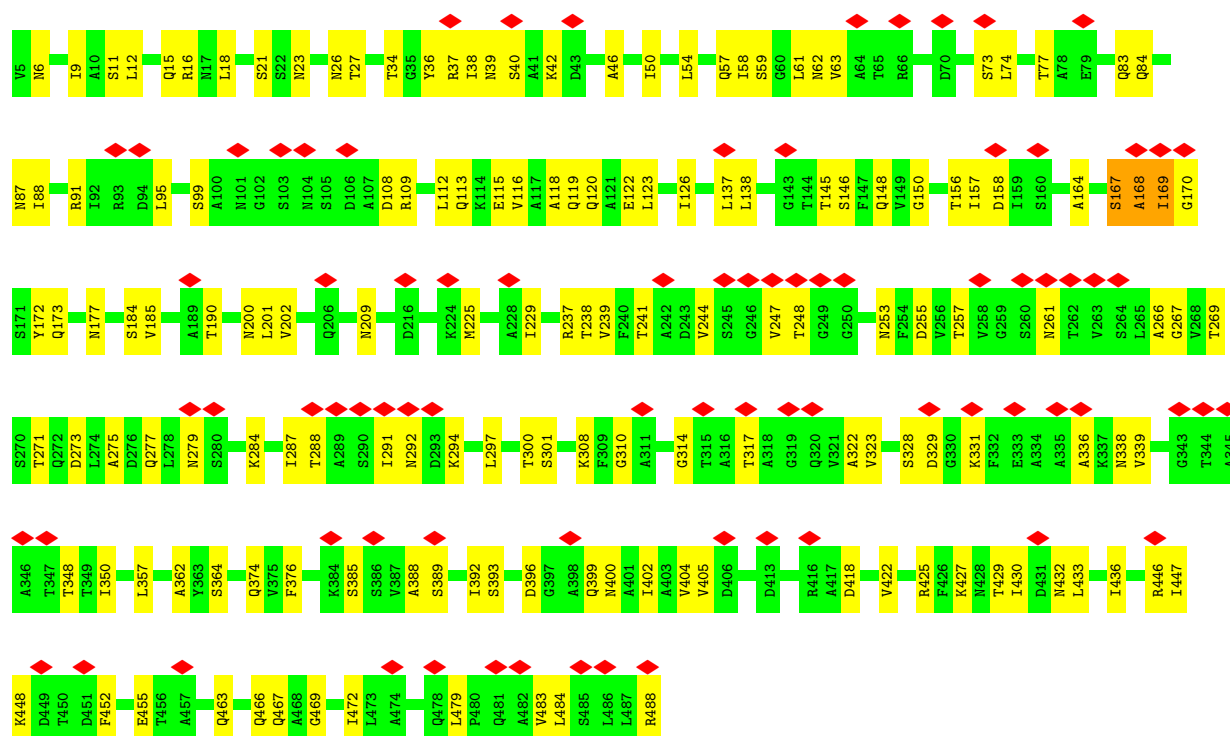




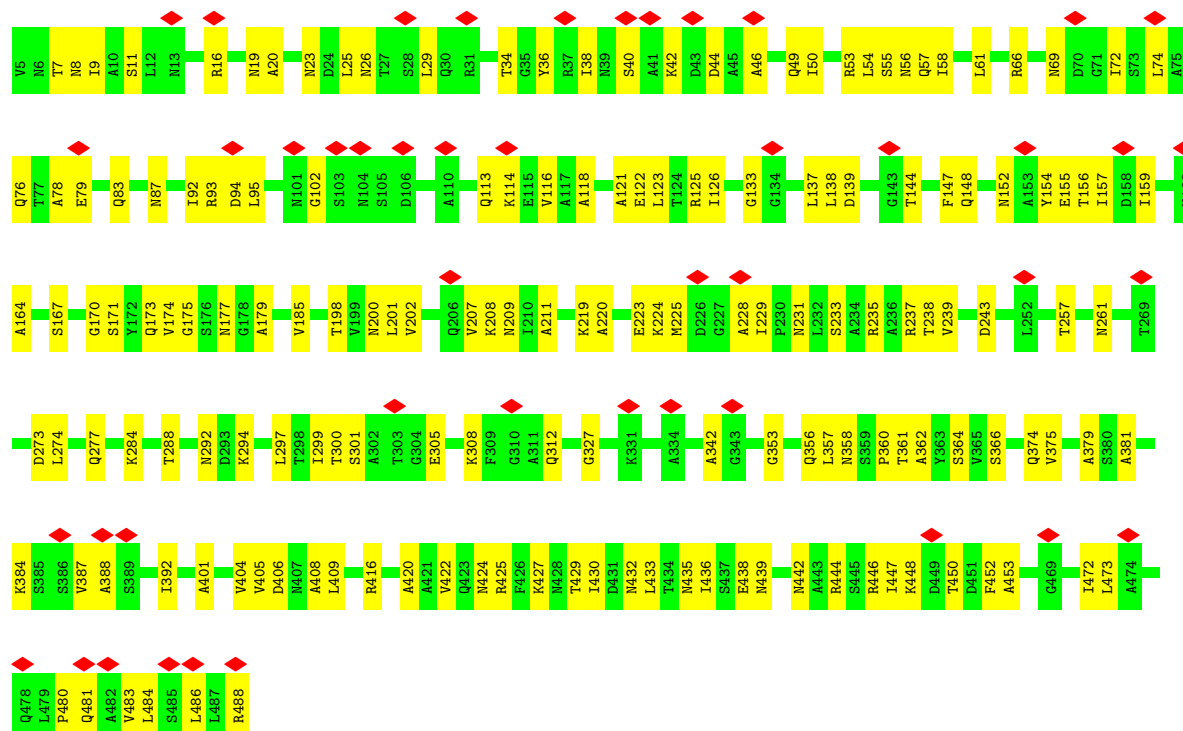
• Molecule 1: B-type flagellin



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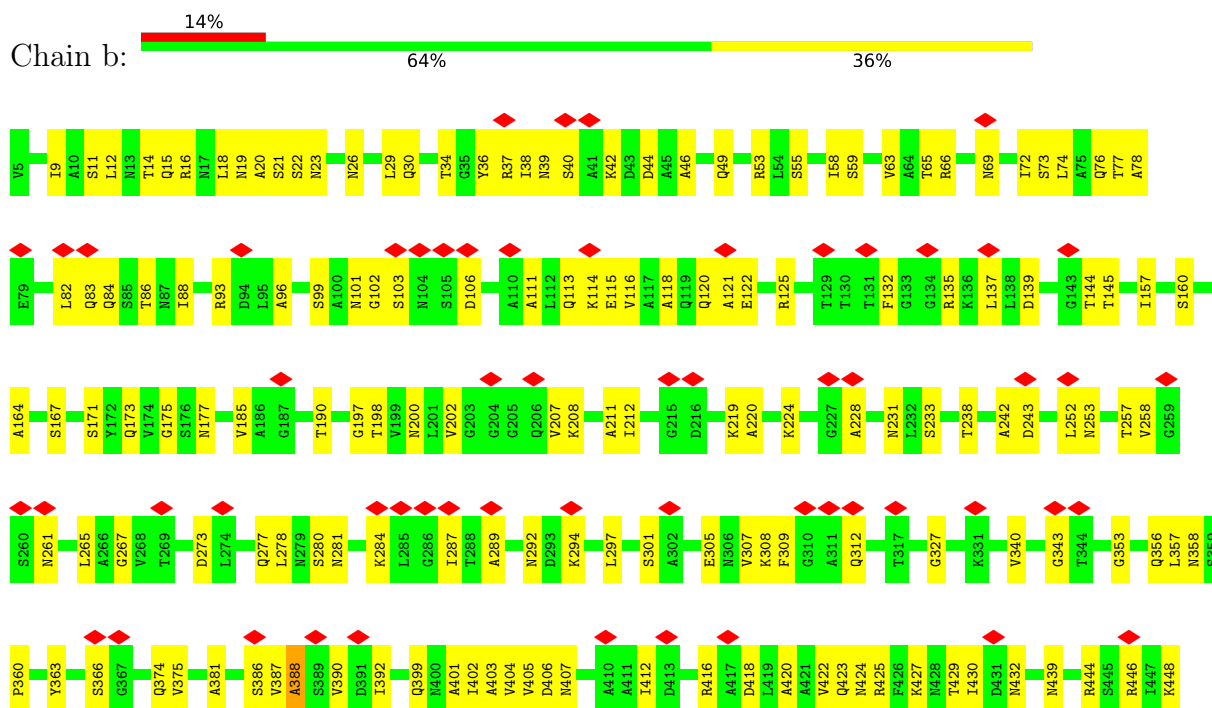
• Molecule 1: B-type flagellin

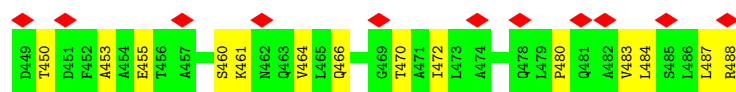


- Molecule 1: B-type flagellin

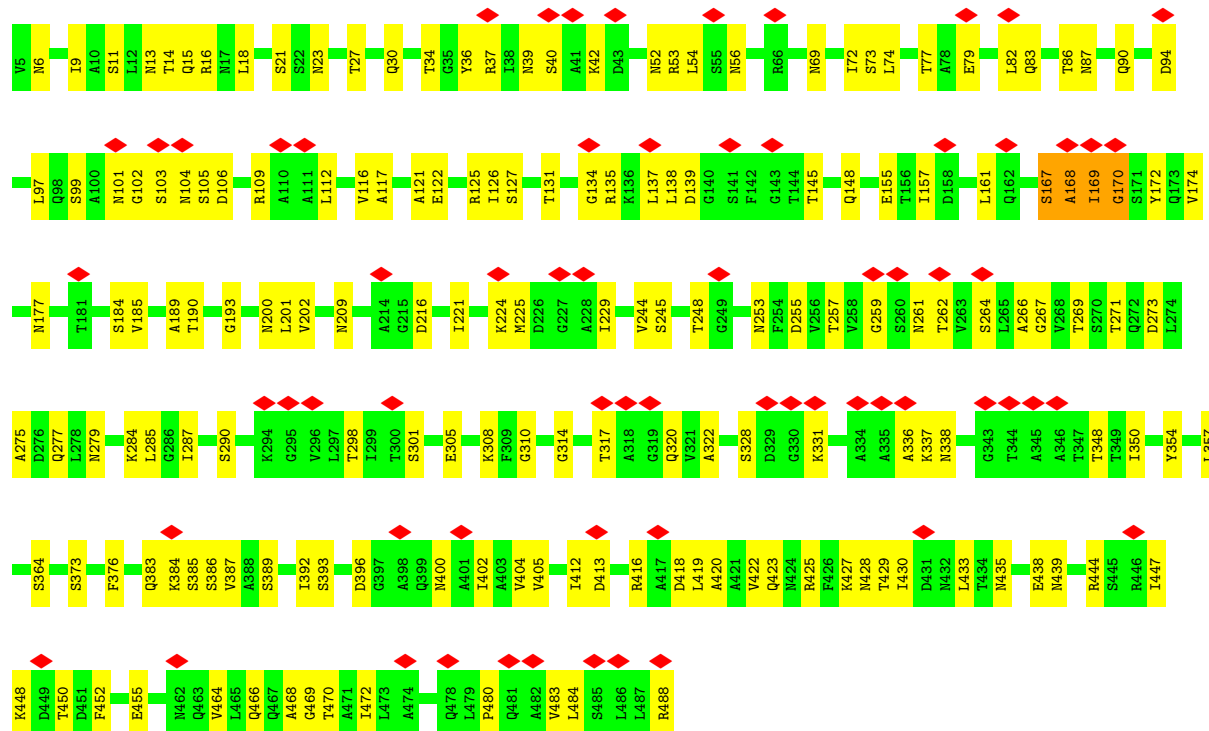


- Molecule 1: B-type flagellin

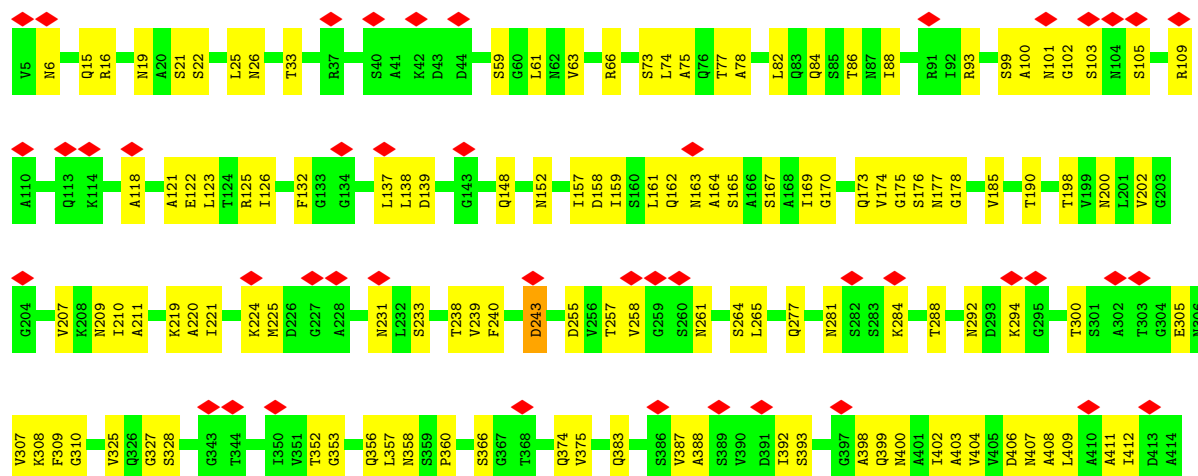


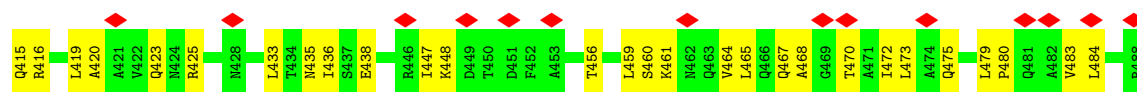


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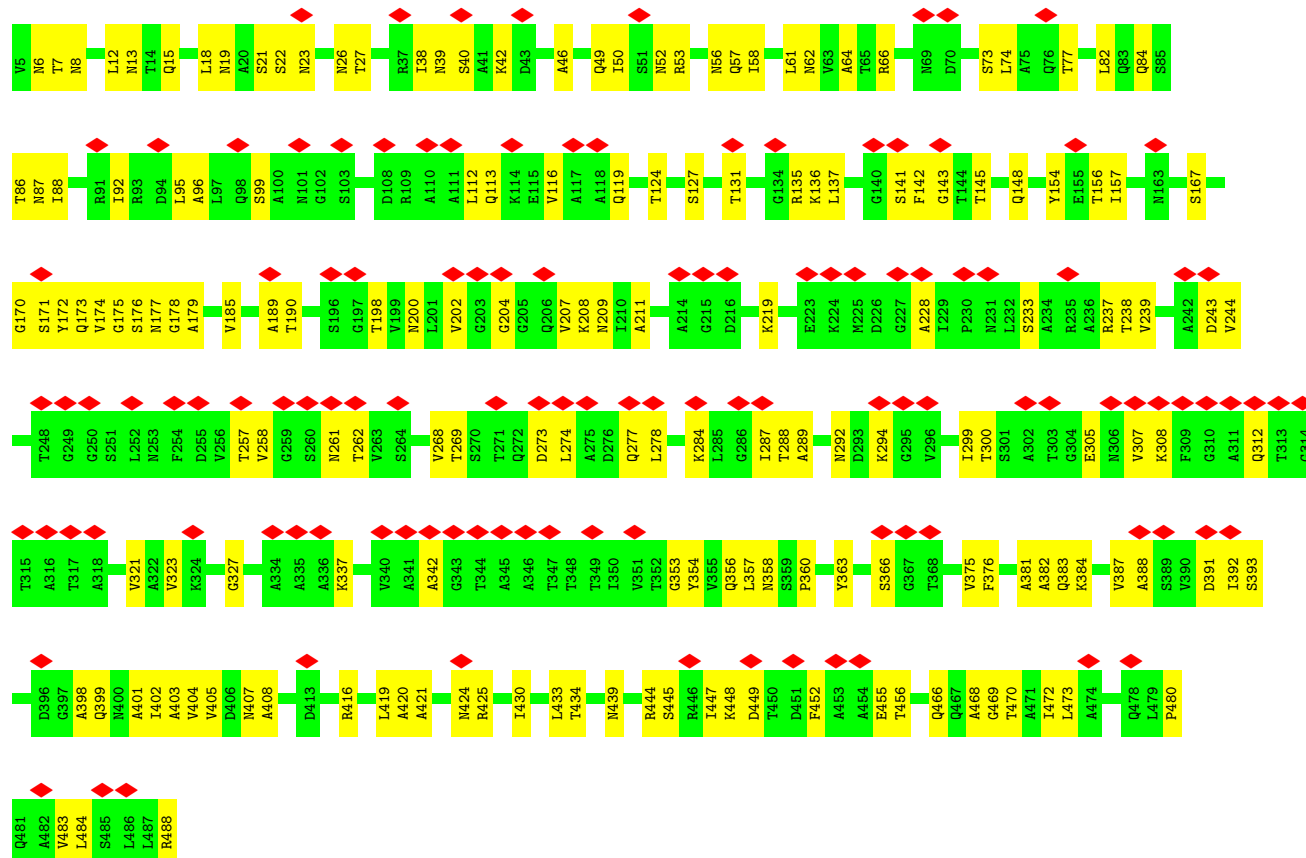


• Molecule 1: B-type flagellin

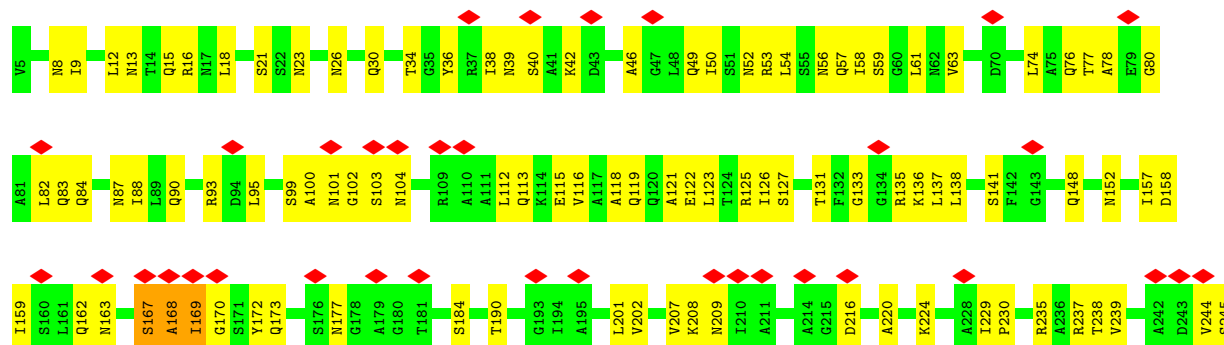


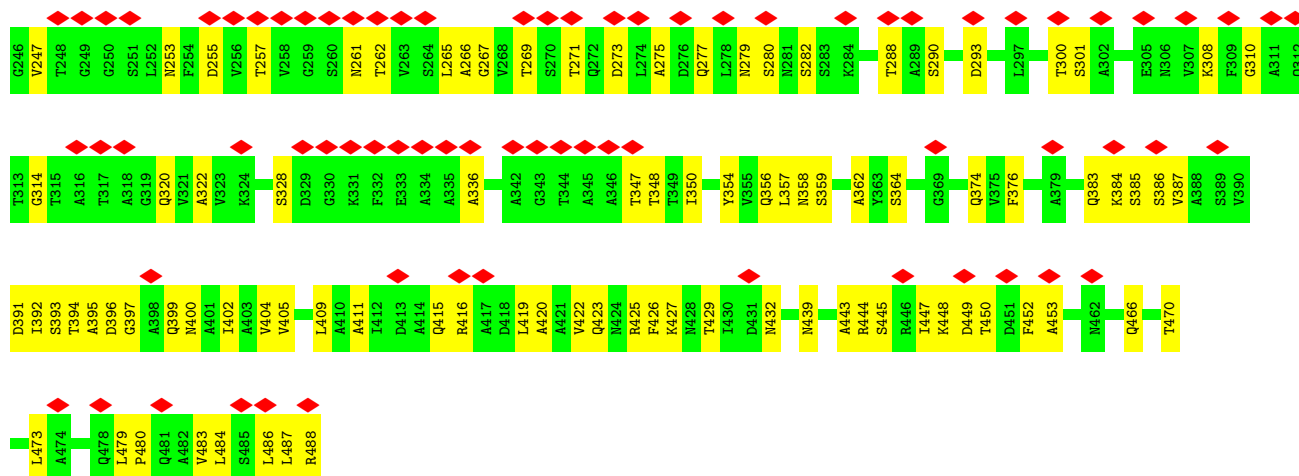


• Molecule 1: B-type flagellin

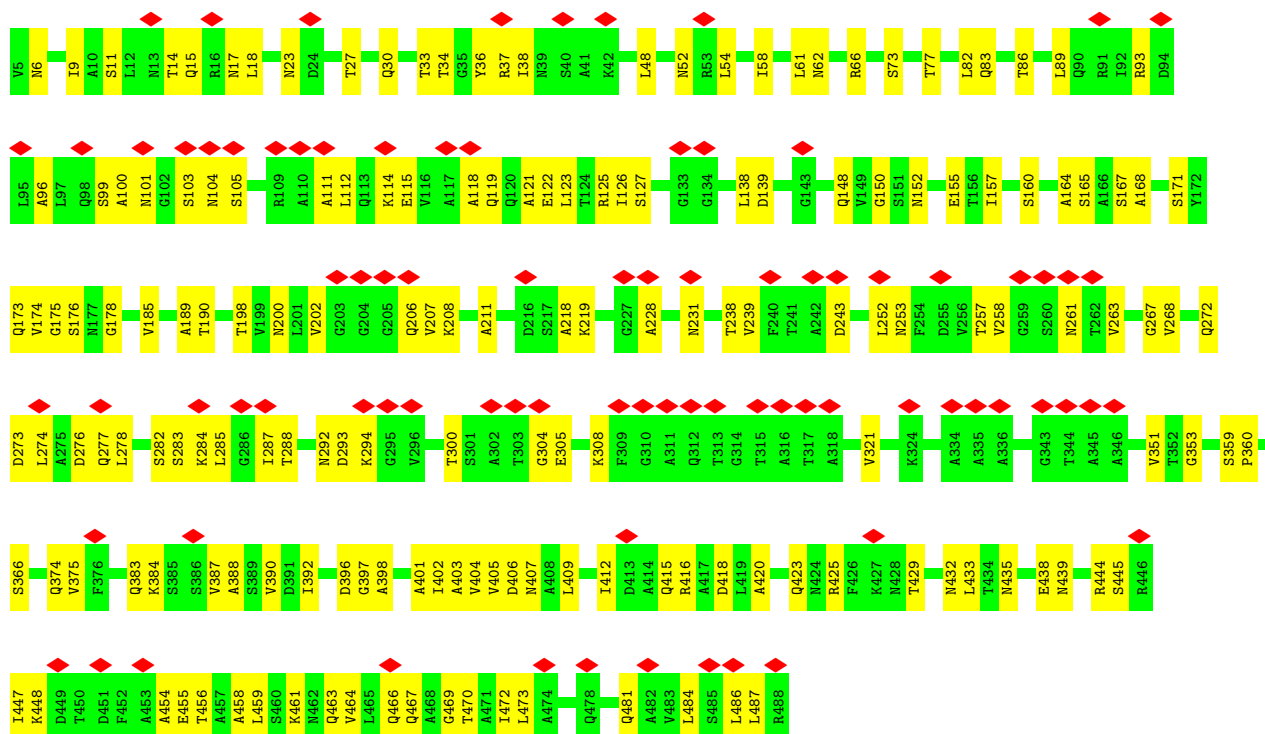


• Molecule 1: B-type flagellin





• Molecule 1: B-type flagellin



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	29945	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS GLACIOS	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	3000	Depositor
Magnification	Not provided	
Image detector	FEI FALCON IV (4k x 4k)	Depositor
Maximum map value	0.379	Depositor
Minimum map value	-0.223	Depositor
Average map value	0.004	Depositor
Map value standard deviation	0.023	Depositor
Recommended contour level	0.075	Depositor
Map size (Å)	397.44, 397.44, 397.44	wwPDB
Map dimensions	432, 432, 432	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.92, 0.92, 0.92	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.16	0/3455	0.49	0/4695
1	B	0.15	0/3455	0.49	0/4695
1	C	0.15	0/3455	0.47	0/4695
1	D	0.16	0/3455	0.48	0/4695
1	E	0.15	0/3455	0.48	1/4695 (0.0%)
1	F	0.15	0/3455	0.49	1/4695 (0.0%)
1	G	0.15	0/3455	0.47	0/4695
1	H	0.15	0/3455	0.48	1/4695 (0.0%)
1	I	0.16	0/3455	0.49	0/4695
1	J	0.15	0/3455	0.47	0/4695
1	K	0.15	0/3455	0.49	1/4695 (0.0%)
1	L	0.15	0/3455	0.47	0/4695
1	M	0.15	0/3455	0.47	0/4695
1	N	0.14	0/3455	0.49	1/4695 (0.0%)
1	O	0.15	0/3455	0.47	0/4695
1	P	0.15	0/3455	0.48	1/4695 (0.0%)
1	Q	0.16	0/3455	0.48	0/4695
1	R	0.14	0/3455	0.47	1/4695 (0.0%)
1	S	0.14	0/3455	0.48	1/4695 (0.0%)
1	T	0.15	0/3455	0.47	0/4695
1	U	0.14	0/3455	0.47	0/4695
1	V	0.16	0/3455	0.47	0/4695
1	W	0.15	0/3455	0.49	1/4695 (0.0%)
1	X	0.15	0/3455	0.47	0/4695
1	Y	0.16	0/3455	0.49	0/4695
1	Z	0.15	0/3455	0.48	1/4695 (0.0%)
1	a	0.16	0/3455	0.48	0/4695
1	b	0.15	0/3455	0.48	1/4695 (0.0%)
1	c	0.16	0/3455	0.48	0/4695
1	d	0.14	0/3455	0.48	1/4695 (0.0%)
1	e	0.14	0/3455	0.47	1/4695 (0.0%)
1	f	0.16	0/3455	0.49	0/4695
1	g	0.15	0/3455	0.49	1/4695 (0.0%)
All	All	0.15	0/114015	0.48	14/154935 (0.0%)

There are no bond length outliers.

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	g	388	ALA	N-CA-C	-6.24	106.89	114.75
1	K	388	ALA	N-CA-C	-6.05	106.88	114.56
1	F	388	ALA	N-CA-C	-5.94	107.26	114.75
1	W	388	ALA	N-CA-C	-5.92	107.28	114.75
1	H	388	ALA	N-CA-C	-5.90	107.32	114.75
1	Z	388	ALA	N-CA-C	-5.83	107.16	114.56
1	E	388	ALA	N-CA-C	-5.83	107.16	114.56
1	R	388	ALA	N-CA-C	-5.71	107.55	114.75
1	e	388	ALA	N-CA-C	-5.66	107.38	114.56
1	d	388	ALA	N-CA-C	-5.63	107.66	114.75
1	N	388	ALA	N-CA-C	-5.49	107.83	114.75
1	S	388	ALA	N-CA-C	-5.49	107.84	114.75
1	P	388	ALA	N-CA-C	-5.15	108.26	114.75
1	b	388	ALA	N-CA-C	-5.08	108.35	114.75

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3435	0	3417	160	0
1	B	3435	0	3417	143	0
1	C	3435	0	3417	123	0
1	D	3435	0	3417	168	0
1	E	3435	0	3417	123	0
1	F	3435	0	3417	112	0
1	G	3435	0	3417	137	0
1	H	3435	0	3417	144	0
1	I	3435	0	3417	146	0
1	J	3435	0	3417	145	0
1	K	3435	0	3417	144	0
1	L	3435	0	3417	135	0
1	M	3435	0	3417	125	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	N	3435	0	3417	141	0
1	O	3435	0	3417	129	0
1	P	3435	0	3417	123	0
1	Q	3435	0	3417	151	0
1	R	3435	0	3417	102	0
1	S	3435	0	3417	103	0
1	T	3435	0	3417	136	0
1	U	3435	0	3417	134	0
1	V	3435	0	3417	123	0
1	W	3435	0	3417	156	0
1	X	3435	0	3417	133	0
1	Y	3435	0	3417	116	0
1	Z	3435	0	3417	142	0
1	a	3435	0	3417	157	0
1	b	3435	0	3417	127	0
1	c	3435	0	3417	144	0
1	d	3435	0	3417	115	0
1	e	3435	0	3417	129	0
1	f	3435	0	3417	161	0
1	g	3435	0	3417	140	0
All	All	113355	0	112761	3856	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 17.

All (3856) 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:205:GLY:H	1:X:281:ASN:HD22	1.25	0.82
1:A:171:SER:HB3	1:A:387:VAL:HB	1.59	0.82
1:U:61:LEU:HD22	1:U:433:LEU:HD11	1.62	0.81
1:H:157:ILE:HD12	1:H:425:ARG:HE	1.46	0.81
1:D:157:ILE:HD12	1:D:425:ARG:HE	1.47	0.80
1:C:77:THR:HA	1:E:439:ASN:HD22	1.45	0.80
1:Q:172:TYR:HE1	1:Q:404:VAL:HG12	1.47	0.80
1:W:173:GLN:HG2	1:W:358:ASN:HA	1.63	0.80
1:d:122:GLU:HB2	1:g:425:ARG:HG3	1.62	0.80
1:D:266:ALA:H	1:D:277:GLN:HE22	1.29	0.79
1:W:157:ILE:HD12	1:W:425:ARG:HE	1.46	0.79
1:C:171:SER:HB3	1:C:387:VAL:HB	1.64	0.79
1:K:381:ALA:HB2	1:L:267:GLY:HA3	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:133:GLY:HA2	1:Z:53:ARG:HH12	1.46	0.79
1:Y:266:ALA:H	1:Y:277:GLN:HE22	1.29	0.78
1:f:127:SER:HA	1:f:138:LEU:HD11	1.65	0.78
1:V:168:ALA:HA	1:V:385:SER:HB2	1.64	0.78
1:B:238:THR:HB	1:B:301:SER:HB3	1.64	0.78
1:Q:308:LYS:HG3	1:Q:350:ILE:HG22	1.65	0.77
1:A:157:ILE:HD12	1:A:425:ARG:HE	1.48	0.77
1:M:238:THR:HB	1:M:301:SER:HB3	1.66	0.77
1:F:278:LEU:HD22	1:F:289:ALA:HB2	1.67	0.76
1:E:84:GLN:HG2	1:H:432:ASN:HB2	1.68	0.76
1:F:175:GLY:HA3	1:F:356:GLN:HG2	1.67	0.76
1:g:34:THR:HG23	1:g:36:TYR:H	1.50	0.76
1:U:116:VAL:HG12	1:U:120:GLN:HE21	1.50	0.76
1:g:127:SER:HA	1:g:138:LEU:HD11	1.67	0.76
1:P:257:THR:HB	1:P:308:LYS:HB3	1.68	0.76
1:H:381:ALA:HB2	1:I:267:GLY:HA3	1.68	0.76
1:Q:168:ALA:HA	1:Q:385:SER:HB2	1.69	0.75
1:V:238:THR:HB	1:V:301:SER:HB3	1.68	0.75
1:X:61:LEU:HD22	1:X:433:LEU:HD11	1.68	0.75
1:Z:157:ILE:HD12	1:Z:425:ARG:HE	1.50	0.75
1:g:168:ALA:HB1	1:g:384:LYS:HE3	1.67	0.75
1:A:308:LYS:HD3	1:A:350:ILE:HG22	1.66	0.75
1:N:145:THR:HG21	1:O:104:ASN:HB2	1.67	0.75
1:I:265:LEU:HD22	1:I:277:GLN:HB3	1.67	0.75
1:K:157:ILE:HD12	1:K:425:ARG:HE	1.51	0.75
1:N:381:ALA:HB2	1:O:267:GLY:HA3	1.68	0.75
1:U:84:GLN:HG2	1:W:432:ASN:HB2	1.69	0.74
1:f:21:SER:HB2	1:f:466:GLN:HE21	1.52	0.74
1:N:157:ILE:HD12	1:N:425:ARG:HE	1.51	0.74
1:Z:261:ASN:ND2	1:Z:284:LYS:O	2.20	0.74
1:a:157:ILE:HD12	1:a:425:ARG:HE	1.50	0.74
1:A:125:ARG:HH22	1:D:432:ASN:HD22	1.35	0.74
1:F:157:ILE:HD12	1:F:425:ARG:HE	1.52	0.74
1:W:123:LEU:HA	1:W:126:ILE:HD12	1.68	0.74
1:d:399:GLN:HA	1:d:402:ILE:HD12	1.70	0.74
1:L:238:THR:HB	1:L:301:SER:HB3	1.70	0.74
1:b:157:ILE:HD12	1:b:425:ARG:HE	1.53	0.74
1:X:21:SER:HB2	1:X:466:GLN:HE21	1.52	0.74
1:P:84:GLN:HG2	1:S:432:ASN:HB2	1.70	0.73
1:f:157:ILE:HD12	1:f:425:ARG:HE	1.53	0.73
1:K:175:GLY:HA3	1:K:356:GLN:HG2	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:481:GLN:HE21	1:U:460:SER:HB2	1.53	0.73
1:B:157:ILE:HD12	1:B:425:ARG:HE	1.54	0.73
1:Q:177:ASN:HD22	1:Q:328:SER:HB3	1.53	0.73
1:U:138:LEU:HD13	1:U:165:SER:HB3	1.70	0.73
1:W:125:ARG:HD3	1:Z:157:ILE:HD11	1.70	0.73
1:Z:76:GLN:HB3	1:b:439:ASN:HD21	1.53	0.73
1:c:266:ALA:H	1:c:277:GLN:HE22	1.36	0.73
1:J:177:ASN:HD22	1:J:328:SER:HB3	1.53	0.73
1:T:122:GLU:HB2	1:V:425:ARG:HG3	1.70	0.73
1:J:157:ILE:HD12	1:J:425:ARG:HE	1.53	0.73
1:T:308:LYS:HG2	1:T:350:ILE:HG22	1.70	0.73
1:f:16:ARG:HH21	1:g:435:ASN:HA	1.54	0.73
1:P:42:LYS:NZ	1:Q:76:GLN:OE1	2.22	0.73
1:K:261:ASN:ND2	1:K:284:LYS:O	2.22	0.72
1:N:93:ARG:NH2	1:N:406:ASP:OD2	2.21	0.72
1:Z:16:ARG:HH21	1:a:435:ASN:HA	1.55	0.72
1:O:308:LYS:HG2	1:O:350:ILE:HG22	1.71	0.72
1:I:18:LEU:O	1:I:466:GLN:NE2	2.22	0.72
1:Y:157:ILE:HD12	1:Y:425:ARG:HE	1.55	0.72
1:C:93:ARG:NH2	1:C:406:ASP:OD1	2.23	0.72
1:O:122:GLU:HB2	1:Q:425:ARG:HG3	1.72	0.72
1:X:127:SER:HA	1:X:138:LEU:HD11	1.72	0.72
1:P:399:GLN:HA	1:P:402:ILE:HD12	1.71	0.72
1:S:358:ASN:HD21	1:S:403:ALA:HB1	1.54	0.72
1:H:399:GLN:HA	1:H:402:ILE:HD12	1.71	0.72
1:O:157:ILE:HD12	1:O:425:ARG:HE	1.55	0.72
1:Q:157:ILE:HD12	1:Q:425:ARG:HE	1.53	0.72
1:c:470:THR:HB	1:f:486:LEU:HD11	1.71	0.72
1:d:66:ARG:NH2	1:g:447:ILE:O	2.23	0.72
1:F:399:GLN:HA	1:F:402:ILE:HD12	1.72	0.71
1:Q:257:THR:HB	1:Q:308:LYS:HB3	1.72	0.71
1:W:29:LEU:HB2	1:Z:472:ILE:HD11	1.72	0.71
1:X:239:VAL:HG22	1:X:300:THR:HG23	1.72	0.71
1:H:257:THR:HB	1:H:308:LYS:HB3	1.72	0.71
1:T:257:THR:HB	1:T:308:LYS:HB3	1.72	0.71
1:B:171:SER:HB3	1:B:387:VAL:HB	1.71	0.71
1:N:200:ASN:ND2	1:N:209:ASN:OD1	2.24	0.71
1:Y:238:THR:HB	1:Y:301:SER:HB3	1.71	0.71
1:a:388:ALA:HB1	1:d:284:LYS:HA	1.70	0.71
1:C:200:ASN:ND2	1:C:209:ASN:OD1	2.24	0.71
1:K:200:ASN:ND2	1:K:209:ASN:OD1	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:137:LEU:HD13	1:O:161:LEU:HD11	1.73	0.71
1:A:425:ARG:HG3	1:g:122:GLU:HB2	1.72	0.71
1:C:125:ARG:HH22	1:E:432:ASN:HD22	1.37	0.71
1:S:16:ARG:HH21	1:T:435:ASN:HA	1.55	0.71
1:Y:16:ARG:HH21	1:Z:435:ASN:HA	1.53	0.71
1:a:168:ALA:HA	1:a:385:SER:HB2	1.73	0.71
1:g:157:ILE:HD12	1:g:425:ARG:HE	1.54	0.71
1:Z:40:SER:O	1:a:416:ARG:NH2	2.23	0.71
1:G:157:ILE:HD12	1:G:425:ARG:HE	1.55	0.71
1:H:175:GLY:HA3	1:H:356:GLN:HG2	1.72	0.71
1:L:308:LYS:HG2	1:L:350:ILE:HG22	1.71	0.71
1:M:56:ASN:HA	1:N:90:GLN:HE22	1.55	0.71
1:X:18:LEU:HD21	1:X:469:GLY:HA3	1.72	0.70
1:Y:15:GLN:NE2	1:b:453:ALA:O	2.24	0.70
1:g:37:ARG:HG3	1:g:38:ILE:HD12	1.73	0.70
1:C:157:ILE:HD12	1:C:425:ARG:HE	1.55	0.70
1:X:189:ALA:HB3	1:X:337:LYS:HD2	1.73	0.70
1:X:253:ASN:HD22	1:X:266:ALA:HB1	1.54	0.70
1:D:125:ARG:HH22	1:G:432:ASN:HD22	1.38	0.70
1:B:200:ASN:ND2	1:B:209:ASN:OD1	2.25	0.70
1:K:198:THR:HA	1:K:211:ALA:HA	1.73	0.70
1:S:157:ILE:HD12	1:S:425:ARG:HE	1.56	0.70
1:S:488:ARG:HH12	1:V:467:GLN:HG3	1.56	0.70
1:T:388:ALA:HB1	1:W:284:LYS:HA	1.73	0.70
1:a:127:SER:HA	1:a:138:LEU:HD11	1.72	0.70
1:b:399:GLN:HA	1:b:402:ILE:HD12	1.73	0.70
1:d:123:LEU:HA	1:d:126:ILE:HD12	1.73	0.70
1:T:168:ALA:HA	1:T:385:SER:HB2	1.73	0.70
1:b:29:LEU:HD12	1:e:472:ILE:HG23	1.74	0.70
1:P:261:ASN:ND2	1:P:284:LYS:O	2.24	0.70
1:W:93:ARG:NH2	1:W:406:ASP:OD2	2.23	0.70
1:V:389:SER:OG	1:Z:284:LYS:NZ	2.25	0.70
1:f:40:SER:O	1:g:416:ARG:NH2	2.25	0.70
1:G:84:GLN:HG3	1:J:432:ASN:HB2	1.74	0.70
1:O:29:LEU:HD12	1:Q:472:ILE:HG23	1.73	0.70
1:U:127:SER:HA	1:U:138:LEU:HD11	1.74	0.70
1:M:177:ASN:HD22	1:M:328:SER:HB3	1.57	0.70
1:c:126:ILE:HG12	1:f:432:ASN:HD22	1.56	0.70
1:f:115:GLU:HG3	1:f:119:GLN:HE22	1.56	0.70
1:A:184:SER:HB2	1:A:374:GLN:HA	1.73	0.69
1:O:257:THR:HB	1:O:308:LYS:HB3	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:200:ASN:ND2	1:T:209:ASN:OD1	2.25	0.69
1:Z:42:LYS:HD2	1:a:420:ALA:HA	1.73	0.69
1:c:79:GLU:HG3	1:c:83:GLN:HE21	1.56	0.69
1:L:168:ALA:HA	1:L:385:SER:HB2	1.73	0.69
1:N:16:ARG:HH21	1:O:435:ASN:HA	1.54	0.69
1:G:238:THR:HB	1:G:301:SER:HB3	1.73	0.69
1:U:157:ILE:HD12	1:U:425:ARG:HE	1.58	0.69
1:Z:198:THR:HA	1:Z:211:ALA:HA	1.73	0.69
1:a:484:LEU:HG	1:a:488:ARG:HE	1.58	0.69
1:b:76:GLN:HG3	1:e:439:ASN:HD21	1.57	0.69
1:c:189:ALA:HB3	1:c:337:LYS:HD2	1.74	0.69
1:B:239:VAL:HG22	1:B:300:THR:HG23	1.74	0.69
1:G:34:THR:HG23	1:G:36:TYR:H	1.57	0.69
1:G:133:GLY:HA2	1:J:53:ARG:HD2	1.74	0.69
1:L:452:PHE:HA	1:L:455:GLU:HB3	1.73	0.69
1:N:202:VAL:HG22	1:N:207:VAL:HG13	1.75	0.69
1:R:112:LEU:HD21	1:T:46:ALA:HB2	1.73	0.69
1:f:34:THR:HG23	1:f:36:TYR:H	1.57	0.69
1:C:122:GLU:HB2	1:E:425:ARG:HG3	1.74	0.69
1:E:93:ARG:HH21	1:E:406:ASP:HA	1.57	0.69
1:G:168:ALA:HA	1:G:385:SER:HB2	1.73	0.69
1:H:29:LEU:HD12	1:K:472:ILE:HG23	1.73	0.69
1:R:86:THR:HG23	1:R:409:LEU:HD11	1.73	0.69
1:a:257:THR:HB	1:a:308:LYS:HB3	1.75	0.69
1:K:174:VAL:HG11	1:K:179:ALA:HB2	1.75	0.69
1:N:122:GLU:HB2	1:P:425:ARG:HG3	1.75	0.69
1:V:200:ASN:ND2	1:V:209:ASN:OD1	2.25	0.69
1:c:16:ARG:HH21	1:d:435:ASN:HA	1.57	0.69
1:g:374:GLN:HG3	1:g:375:VAL:HG23	1.74	0.69
1:H:145:THR:HG21	1:I:104:ASN:HB2	1.75	0.69
1:P:274:LEU:HA	1:P:277:GLN:HE21	1.57	0.69
1:H:358:ASN:HB3	1:H:407:ASN:HD21	1.57	0.69
1:Q:167:SER:HA	1:Q:387:VAL:HG12	1.74	0.69
1:T:99:SER:HB2	1:T:392:ILE:HG23	1.74	0.69
1:T:157:ILE:HD12	1:T:425:ARG:HE	1.57	0.69
1:a:200:ASN:ND2	1:a:209:ASN:OD1	2.25	0.69
1:K:34:THR:HG23	1:K:36:TYR:H	1.59	0.68
1:V:157:ILE:HD12	1:V:425:ARG:HE	1.57	0.68
1:g:206:GLN:HE22	1:g:208:LYS:HG2	1.58	0.68
1:I:29:LEU:HG	1:L:472:ILE:HD11	1.75	0.68
1:M:266:ALA:O	1:M:277:GLN:NE2	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:257:THR:HB	1:M:308:LYS:HB3	1.74	0.68
1:W:139:ASP:HA	1:W:164:ALA:HA	1.74	0.68
1:b:173:GLN:HG2	1:b:358:ASN:HA	1.75	0.68
1:X:484:LEU:HG	1:X:488:ARG:HE	1.59	0.68
1:e:61:LEU:HD22	1:e:433:LEU:HD11	1.75	0.68
1:K:202:VAL:HG22	1:K:207:VAL:HG13	1.75	0.68
1:Q:189:ALA:HB3	1:Q:337:LYS:HD2	1.74	0.68
1:Z:93:ARG:NH2	1:Z:406:ASP:OD2	2.21	0.68
1:U:399:GLN:HA	1:U:402:ILE:HD12	1.75	0.68
1:X:308:LYS:HG2	1:X:350:ILE:HG22	1.76	0.68
1:c:122:GLU:HB2	1:f:425:ARG:HG3	1.76	0.68
1:O:200:ASN:ND2	1:O:209:ASN:OD1	2.26	0.68
1:S:61:LEU:HD22	1:S:433:LEU:HD11	1.74	0.68
1:A:435:ASN:HA	1:B:16:ARG:HH21	1.59	0.68
1:J:168:ALA:HA	1:J:385:SER:HB2	1.74	0.68
1:S:257:THR:HB	1:S:308:LYS:HB3	1.75	0.68
1:f:184:SER:HB2	1:f:374:GLN:HA	1.75	0.68
1:H:121:ALA:HB3	1:K:425:ARG:HH12	1.59	0.68
1:N:208:LYS:HE3	1:N:228:ALA:HB1	1.76	0.68
1:T:29:LEU:HD12	1:V:472:ILE:HG23	1.74	0.68
1:f:168:ALA:HA	1:f:385:SER:HB2	1.74	0.68
1:G:257:THR:HB	1:G:308:LYS:HB3	1.75	0.68
1:a:34:THR:HG23	1:a:36:TYR:H	1.58	0.68
1:A:199:VAL:HG21	1:A:375:VAL:HG21	1.75	0.67
1:B:199:VAL:HG21	1:B:375:VAL:HG21	1.75	0.67
1:J:40:SER:O	1:K:416:ARG:NH2	2.28	0.67
1:J:452:PHE:HA	1:J:455:GLU:HB2	1.76	0.67
1:Q:89:LEU:HD22	1:Q:409:LEU:HB2	1.77	0.67
1:A:99:SER:O	1:A:101:ASN:ND2	2.26	0.67
1:A:439:ASN:HD22	1:g:77:THR:HA	1.59	0.67
1:N:93:ARG:HH22	1:N:409:LEU:HD21	1.58	0.67
1:U:261:ASN:ND2	1:U:284:LYS:O	2.27	0.67
1:X:92:ILE:HD13	1:X:95:LEU:HD21	1.74	0.67
1:Y:177:ASN:HD22	1:Y:328:SER:HB3	1.57	0.67
1:B:157:ILE:HD11	1:f:125:ARG:HD3	1.75	0.67
1:L:257:THR:HB	1:L:308:LYS:HB3	1.75	0.67
1:N:76:GLN:HG3	1:P:439:ASN:HD21	1.59	0.67
1:P:381:ALA:HB2	1:Q:267:GLY:HA3	1.77	0.67
1:W:452:PHE:HA	1:W:455:GLU:HB2	1.76	0.67
1:Z:125:ARG:HD3	1:b:157:ILE:HD11	1.77	0.67
1:c:172:TYR:HE1	1:c:404:VAL:HG22	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:200:ASN:ND2	1:I:209:ASN:OD1	2.26	0.67
1:J:122:GLU:HB2	1:M:425:ARG:HG3	1.77	0.67
1:P:200:ASN:ND2	1:P:209:ASN:OD1	2.28	0.67
1:T:167:SER:HA	1:T:387:VAL:HG12	1.77	0.67
1:T:238:THR:HB	1:T:301:SER:HB3	1.77	0.67
1:b:66:ARG:HA	1:b:69:ASN:HD22	1.58	0.67
1:f:238:THR:HB	1:f:301:SER:HB3	1.76	0.67
1:A:425:ARG:HH12	1:g:121:ALA:HB3	1.58	0.67
1:F:278:LEU:HD21	1:F:287:ILE:HD11	1.77	0.67
1:J:257:THR:HB	1:J:308:LYS:HB3	1.75	0.67
1:B:136:LYS:HE2	1:B:140:GLY:HA3	1.77	0.67
1:c:200:ASN:ND2	1:c:209:ASN:OD1	2.28	0.67
1:J:308:LYS:HG2	1:J:350:ILE:HG22	1.77	0.67
1:g:261:ASN:ND2	1:g:284:LYS:O	2.27	0.67
1:J:200:ASN:ND2	1:J:209:ASN:OD1	2.26	0.67
1:M:388:ALA:HB1	1:P:284:LYS:HA	1.77	0.67
1:N:125:ARG:HH22	1:P:432:ASN:HD22	1.43	0.67
1:S:399:GLN:HA	1:S:402:ILE:HD12	1.77	0.67
1:Z:8:ASN:HD21	1:a:445:SER:HB3	1.60	0.67
1:e:202:VAL:HG22	1:e:207:VAL:HG13	1.77	0.67
1:A:145:THR:HG21	1:C:104:ASN:HB2	1.76	0.67
1:A:473:LEU:HD23	1:D:487:LEU:HD21	1.77	0.67
1:J:77:THR:HA	1:M:439:ASN:HD22	1.58	0.67
1:R:29:LEU:HD12	1:U:472:ILE:HG23	1.75	0.67
1:Y:34:THR:HG23	1:Y:36:TYR:H	1.59	0.67
1:D:200:ASN:ND2	1:D:209:ASN:OD1	2.28	0.66
1:R:202:VAL:HG22	1:R:207:VAL:HG13	1.77	0.66
1:Y:244:VAL:H	1:Y:271:THR:HG22	1.59	0.66
1:I:168:ALA:HA	1:I:385:SER:HB2	1.77	0.66
1:V:127:SER:HA	1:V:138:LEU:HD11	1.76	0.66
1:X:290:SER:HB3	1:X:298:THR:HB	1.77	0.66
1:G:388:ALA:HB1	1:K:284:LYS:HA	1.76	0.66
1:J:383:GLN:HE22	1:J:384:LYS:HE3	1.61	0.66
1:L:275:ALA:O	1:L:279:ASN:ND2	2.25	0.66
1:W:261:ASN:ND2	1:W:284:LYS:O	2.28	0.66
1:e:157:ILE:HD12	1:e:425:ARG:HE	1.60	0.66
1:e:198:THR:HA	1:e:211:ALA:HA	1.77	0.66
1:G:167:SER:O	1:G:169:ILE:N	2.28	0.66
1:P:202:VAL:HG22	1:P:207:VAL:HG13	1.75	0.66
1:a:239:VAL:HG22	1:a:300:THR:HG23	1.77	0.66
1:P:173:GLN:HG2	1:P:358:ASN:HA	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:123:LEU:HA	1:C:126:ILE:HD12	1.76	0.66
1:O:167:SER:O	1:O:169:ILE:N	2.28	0.66
1:B:202:VAL:HB	1:B:364:SER:HB2	1.78	0.66
1:Y:200:ASN:ND2	1:Y:209:ASN:OD1	2.25	0.66
1:d:257:THR:HB	1:d:308:LYS:HB3	1.78	0.66
1:f:167:SER:O	1:f:169:ILE:N	2.29	0.66
1:L:200:ASN:ND2	1:L:209:ASN:OD1	2.29	0.66
1:W:74:LEU:HD11	1:W:135:ARG:HH12	1.60	0.66
1:G:200:ASN:ND2	1:G:209:ASN:OD1	2.29	0.66
1:K:143:GLY:O	1:L:290:SER:OG	2.14	0.66
1:Z:93:ARG:HH22	1:Z:409:LEU:HD21	1.61	0.66
1:d:470:THR:HG23	1:g:486:LEU:HD23	1.76	0.66
1:A:275:ALA:O	1:A:279:ASN:ND2	2.28	0.66
1:L:157:ILE:HD12	1:L:425:ARG:HE	1.59	0.66
1:A:164:ALA:HB3	1:A:169:ILE:HD11	1.78	0.65
1:E:202:VAL:HG22	1:E:207:VAL:HG13	1.78	0.65
1:G:29:LEU:HD12	1:J:472:ILE:HG23	1.79	0.65
1:L:185:VAL:HG13	1:L:190:THR:HG21	1.77	0.65
1:V:400:ASN:O	1:V:404:VAL:HG23	1.96	0.65
1:G:239:VAL:HG13	1:G:300:THR:HG22	1.78	0.65
1:Q:122:GLU:HB2	1:T:425:ARG:HG3	1.79	0.65
1:R:77:THR:HA	1:U:439:ASN:HD22	1.59	0.65
1:b:111:ALA:HA	1:b:114:LYS:HE3	1.77	0.65
1:K:29:LEU:HD12	1:N:472:ILE:HG23	1.78	0.65
1:M:200:ASN:ND2	1:M:209:ASN:OD1	2.28	0.65
1:T:244:VAL:H	1:T:271:THR:HG22	1.61	0.65
1:W:198:THR:HA	1:W:211:ALA:HA	1.77	0.65
1:f:253:ASN:HB2	1:f:314:GLY:HA2	1.79	0.65
1:I:308:LYS:HG2	1:I:350:ILE:HG22	1.78	0.65
1:N:374:GLN:HG3	1:N:375:VAL:HG23	1.76	0.65
1:U:173:GLN:HG2	1:U:358:ASN:HA	1.77	0.65
1:A:141:SER:OG	1:C:294:LYS:NZ	2.28	0.65
1:D:122:GLU:HB2	1:G:425:ARG:HG3	1.78	0.65
1:D:257:THR:HB	1:D:308:LYS:HB3	1.76	0.65
1:M:65:THR:HG23	1:M:430:ILE:HD11	1.79	0.65
1:f:148:GLN:NE2	1:f:152:ASN:O	2.30	0.65
1:f:400:ASN:O	1:f:404:VAL:HG23	1.97	0.65
1:G:16:ARG:HH21	1:H:435:ASN:HA	1.60	0.65
1:L:166:ALA:HB3	1:L:169:ILE:HD11	1.79	0.65
1:N:18:LEU:HD21	1:N:469:GLY:HA3	1.78	0.65
1:S:202:VAL:HG22	1:S:207:VAL:HG13	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:177:ASN:HD22	1:V:328:SER:HB3	1.60	0.65
1:W:16:ARG:HH22	1:X:438:GLU:HB2	1.60	0.65
1:Z:288:THR:HB	1:Z:300:THR:HB	1.77	0.65
1:B:13:ASN:HD22	1:f:30:GLN:HG2	1.61	0.65
1:J:57:GLN:O	1:J:61:LEU:HG	1.97	0.65
1:Q:287:ILE:HD12	1:Q:301:SER:HB2	1.79	0.65
1:c:275:ALA:O	1:c:279:ASN:ND2	2.28	0.65
1:d:157:ILE:HD12	1:d:425:ARG:HE	1.62	0.65
1:L:66:ARG:NH2	1:O:446:ARG:O	2.30	0.65
1:W:200:ASN:ND2	1:W:209:ASN:OD1	2.30	0.65
1:C:189:ALA:HB3	1:C:337:LYS:HD2	1.79	0.65
1:H:374:GLN:HG3	1:H:375:VAL:HG23	1.79	0.65
1:I:244:VAL:H	1:I:271:THR:HG22	1.62	0.65
1:f:347:THR:HG22	1:f:348:THR:HG23	1.78	0.65
1:A:453:ALA:O	1:f:15:GLN:NE2	2.25	0.64
1:N:99:SER:O	1:N:101:ASN:ND2	2.28	0.64
1:P:125:ARG:HH22	1:S:432:ASN:HD22	1.46	0.64
1:R:34:THR:HG23	1:R:36:TYR:H	1.61	0.64
1:T:253:ASN:HD22	1:T:266:ALA:HB1	1.62	0.64
1:a:148:GLN:NE2	1:a:152:ASN:O	2.30	0.64
1:J:166:ALA:HB3	1:J:169:ILE:HD11	1.79	0.64
1:Q:168:ALA:HB2	1:Q:386:SER:H	1.62	0.64
1:V:257:THR:HB	1:V:308:LYS:HB3	1.79	0.64
1:W:56:ASN:HA	1:X:90:GLN:HE22	1.61	0.64
1:L:387:VAL:HG23	1:L:404:VAL:HG11	1.79	0.64
1:O:389:SER:HA	1:R:284:LYS:HG2	1.78	0.64
1:S:356:GLN:NE2	1:S:357:LEU:O	2.29	0.64
1:b:202:VAL:HG22	1:b:207:VAL:HG13	1.79	0.64
1:g:174:VAL:HG13	1:g:383:GLN:HB2	1.79	0.64
1:F:202:VAL:HG22	1:F:207:VAL:HG13	1.79	0.64
1:N:9:ILE:HG13	1:N:11:SER:H	1.63	0.64
1:U:175:GLY:HA3	1:U:356:GLN:HG2	1.79	0.64
1:e:274:LEU:HA	1:e:277:GLN:HE21	1.62	0.64
1:C:99:SER:HB2	1:C:392:ILE:HG23	1.80	0.64
1:G:400:ASN:O	1:G:404:VAL:HG23	1.98	0.64
1:K:252:LEU:HA	1:K:312:GLN:HE22	1.62	0.64
1:Q:132:PHE:HB3	1:Q:137:LEU:HD21	1.80	0.64
1:Z:175:GLY:HA3	1:Z:356:GLN:HG2	1.80	0.64
1:c:157:ILE:HD12	1:c:425:ARG:HE	1.63	0.64
1:C:211:ALA:O	1:C:224:LYS:NZ	2.26	0.64
1:E:77:THR:HG22	1:H:439:ASN:HB3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:101:ASN:OD1	1:I:109:ARG:NH2	2.30	0.64
1:Q:131:THR:HG21	1:T:152:ASN:HD21	1.63	0.64
1:C:121:ALA:HB3	1:E:425:ARG:HH12	1.63	0.64
1:D:177:ASN:HD22	1:D:328:SER:HB3	1.61	0.64
1:Y:167:SER:O	1:Y:169:ILE:N	2.31	0.64
1:Z:29:LEU:HD12	1:b:472:ILE:HG23	1.79	0.64
1:C:275:ALA:HB2	1:C:297:LEU:HD11	1.79	0.64
1:E:122:GLU:HB2	1:H:425:ARG:HG3	1.79	0.64
1:U:374:GLN:HG3	1:U:375:VAL:HG23	1.80	0.64
1:V:42:LYS:HB2	1:W:420:ALA:HA	1.80	0.64
1:a:424:ASN:HA	1:a:427:LYS:HE3	1.80	0.64
1:B:173:GLN:HB2	1:B:359:SER:HB3	1.80	0.64
1:C:9:ILE:HG13	1:C:11:SER:H	1.63	0.64
1:C:127:SER:HA	1:C:138:LEU:HD11	1.79	0.64
1:P:268:VAL:HG22	1:P:277:GLN:HE22	1.63	0.64
1:Q:200:ASN:ND2	1:Q:209:ASN:OD1	2.30	0.64
1:V:125:ARG:HD3	1:Y:157:ILE:HD11	1.80	0.64
1:e:468:ALA:O	1:e:472:ILE:HG12	1.98	0.64
1:E:157:ILE:HD12	1:E:425:ARG:HE	1.62	0.64
1:R:157:ILE:HD12	1:R:425:ARG:HE	1.62	0.64
1:U:200:ASN:ND2	1:U:209:ASN:OD1	2.31	0.64
1:U:257:THR:HB	1:U:308:LYS:HB2	1.80	0.64
1:e:261:ASN:ND2	1:e:284:LYS:O	2.31	0.64
1:Q:21:SER:HB2	1:Q:466:GLN:HE21	1.63	0.63
1:S:139:ASP:HA	1:S:164:ALA:HA	1.80	0.63
1:a:18:LEU:HD21	1:a:469:GLY:HA3	1.80	0.63
1:A:416:ARG:NH2	1:B:40:SER:O	2.31	0.63
1:D:56:ASN:HA	1:E:90:GLN:HE22	1.63	0.63
1:F:312:GLN:HG2	1:F:342:ALA:HA	1.80	0.63
1:M:56:ASN:ND2	1:N:90:GLN:OE1	2.30	0.63
1:R:131:THR:O	1:U:57:GLN:NE2	2.31	0.63
1:b:374:GLN:HG3	1:b:375:VAL:HG23	1.79	0.63
1:d:374:GLN:HG3	1:d:375:VAL:HG23	1.80	0.63
1:f:387:VAL:HG23	1:f:404:VAL:HG11	1.80	0.63
1:B:439:ASN:HD21	1:f:76:GLN:HG3	1.63	0.63
1:Z:118:ALA:O	1:b:425:ARG:NH1	2.32	0.63
1:c:121:ALA:HB3	1:f:425:ARG:HH12	1.62	0.63
1:D:400:ASN:O	1:D:404:VAL:HG23	1.98	0.63
1:J:400:ASN:O	1:J:404:VAL:HG23	1.97	0.63
1:O:79:GLU:OE2	1:O:423:GLN:NE2	2.30	0.63
1:S:208:LYS:HE3	1:S:228:ALA:HB1	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:92:ILE:HD13	1:Z:95:LEU:HD21	1.80	0.63
1:a:383:GLN:HG2	1:a:384:LYS:HG3	1.80	0.63
1:a:387:VAL:HG23	1:a:404:VAL:HG11	1.81	0.63
1:c:383:GLN:HG2	1:c:384:LYS:HG3	1.79	0.63
1:A:444:ARG:O	1:A:448:LYS:HB2	1.99	0.63
1:I:84:GLN:NE2	1:L:428:ASN:O	2.32	0.63
1:X:168:ALA:HA	1:X:385:SER:HB2	1.80	0.63
1:X:177:ASN:HD22	1:X:328:SER:HB3	1.63	0.63
1:I:257:THR:HB	1:I:308:LYS:HB3	1.78	0.63
1:K:99:SER:O	1:K:101:ASN:ND2	2.32	0.63
1:N:34:THR:HG23	1:N:36:TYR:H	1.63	0.63
1:O:400:ASN:O	1:O:404:VAL:HG23	1.99	0.63
1:P:141:SER:HA	1:Q:293:ASP:HB2	1.79	0.63
1:U:403:ALA:O	1:U:407:ASN:ND2	2.30	0.63
1:L:168:ALA:HB2	1:L:386:SER:H	1.63	0.63
1:O:83:GLN:OE1	1:O:416:ARG:NH1	2.30	0.63
1:Q:145:THR:OG1	1:R:104:ASN:ND2	2.31	0.63
1:X:157:ILE:HD12	1:X:425:ARG:HE	1.64	0.63
1:Z:480:PRO:HA	1:Z:483:VAL:HG12	1.80	0.63
1:a:244:VAL:H	1:a:271:THR:HG22	1.63	0.63
1:R:121:ALA:HB3	1:U:425:ARG:HH12	1.64	0.63
1:T:172:TYR:HE1	1:T:404:VAL:HG22	1.62	0.63
1:U:202:VAL:HG22	1:U:207:VAL:HG13	1.79	0.63
1:Z:202:VAL:HG22	1:Z:207:VAL:HG13	1.81	0.63
1:C:452:PHE:HA	1:C:455:GLU:HB3	1.80	0.63
1:E:452:PHE:HA	1:E:455:GLU:HB3	1.79	0.63
1:F:374:GLN:HG3	1:F:375:VAL:HG23	1.81	0.63
1:R:77:THR:HG22	1:U:439:ASN:HB3	1.81	0.63
1:T:400:ASN:O	1:T:404:VAL:HG23	1.98	0.63
1:W:274:LEU:HA	1:W:277:GLN:HE21	1.63	0.63
1:e:15:GLN:O	1:e:19:ASN:ND2	2.32	0.63
1:A:383:GLN:HE22	1:A:384:LYS:HE3	1.64	0.62
1:B:452:PHE:HA	1:B:455:GLU:HB2	1.81	0.62
1:F:92:ILE:HD13	1:F:95:LEU:HD21	1.80	0.62
1:F:409:LEU:HA	1:F:412:ILE:HG12	1.81	0.62
1:I:172:TYR:HE1	1:I:404:VAL:HG22	1.63	0.62
1:Q:16:ARG:HH22	1:R:438:GLU:HB2	1.63	0.62
1:W:374:GLN:HG3	1:W:375:VAL:HG23	1.81	0.62
1:B:383:GLN:HG2	1:B:384:LYS:HG3	1.81	0.62
1:D:181:THR:HG23	1:D:378:ASN:HD21	1.63	0.62
1:O:357:LEU:HD23	1:O:376:PHE:HZ	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:d:468:ALA:O	1:d:472:ILE:HG12	1.99	0.62
1:A:18:LEU:HD21	1:A:469:GLY:HA3	1.80	0.62
1:M:275:ALA:O	1:M:279:ASN:ND2	2.31	0.62
1:P:93:ARG:NH2	1:P:406:ASP:OD2	2.33	0.62
1:W:312:GLN:HG2	1:W:342:ALA:HA	1.81	0.62
1:Y:452:PHE:HA	1:Y:455:GLU:HB3	1.80	0.62
1:Z:374:GLN:HG3	1:Z:375:VAL:HG23	1.80	0.62
1:c:389:SER:HB3	1:g:284:LYS:HD3	1.81	0.62
1:D:468:ALA:O	1:D:472:ILE:HG12	2.00	0.62
1:E:77:THR:HA	1:H:439:ASN:HD22	1.64	0.62
1:O:253:ASN:HD22	1:O:266:ALA:HB1	1.62	0.62
1:P:383:GLN:HG3	1:P:384:LYS:H	1.64	0.62
1:S:82:LEU:O	1:S:86:THR:HG23	2.00	0.62
1:V:109:ARG:HB2	1:V:393:SER:HA	1.81	0.62
1:Z:79:GLU:HG3	1:Z:83:GLN:HE21	1.64	0.62
1:D:202:VAL:HB	1:D:364:SER:HB2	1.82	0.62
1:L:357:LEU:HD22	1:L:376:PHE:HE2	1.65	0.62
1:S:274:LEU:HA	1:S:277:GLN:HE21	1.64	0.62
1:S:312:GLN:HG2	1:S:342:ALA:HA	1.82	0.62
1:U:93:ARG:HH21	1:U:406:ASP:HA	1.64	0.62
1:V:452:PHE:HA	1:V:455:GLU:HB2	1.81	0.62
1:X:34:THR:HG23	1:X:36:TYR:H	1.63	0.62
1:J:123:LEU:HA	1:J:126:ILE:HD12	1.82	0.62
1:L:18:LEU:HD21	1:L:469:GLY:HA3	1.81	0.62
1:R:374:GLN:HG3	1:R:375:VAL:HG23	1.82	0.62
1:W:109:ARG:HB2	1:W:393:SER:HA	1.81	0.62
1:Y:308:LYS:HG2	1:Y:350:ILE:HG22	1.81	0.62
1:A:40:SER:O	1:C:416:ARG:NH2	2.33	0.62
1:D:168:ALA:HA	1:D:385:SER:HB2	1.82	0.62
1:D:275:ALA:O	1:D:279:ASN:ND2	2.26	0.62
1:G:237:ARG:HH12	1:G:399:GLN:HE22	1.46	0.62
1:G:383:GLN:HE22	1:G:384:LYS:HE3	1.64	0.62
1:L:29:LEU:HD12	1:O:472:ILE:HG23	1.82	0.62
1:U:99:SER:O	1:U:101:ASN:ND2	2.32	0.62
1:Z:211:ALA:O	1:Z:224:LYS:NZ	2.29	0.62
1:D:53:ARG:HA	1:D:56:ASN:HD22	1.64	0.62
1:K:93:ARG:HH22	1:K:409:LEU:HD21	1.64	0.62
1:L:61:LEU:HD22	1:L:433:LEU:HB3	1.82	0.62
1:L:121:ALA:HB3	1:O:425:ARG:HH12	1.65	0.62
1:L:127:SER:HA	1:L:138:LEU:HD11	1.82	0.62
1:P:82:LEU:HD12	1:P:412:ILE:HG23	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:125:ARG:HD3	1:S:157:ILE:HD11	1.82	0.62
1:T:121:ALA:HB3	1:V:425:ARG:HH12	1.63	0.62
1:U:82:LEU:HD12	1:U:412:ILE:HG23	1.82	0.62
1:a:75:ALA:HB3	1:a:423:GLN:HE21	1.65	0.62
1:B:34:THR:HG23	1:B:36:TYR:H	1.63	0.62
1:E:95:LEU:HD21	1:E:115:GLU:HG3	1.81	0.62
1:T:177:ASN:HD22	1:T:328:SER:HB3	1.62	0.62
1:a:235:ARG:NH2	1:a:354:TYR:OH	2.33	0.62
1:a:269:THR:OG1	1:a:273:ASP:OD2	2.18	0.62
1:a:275:ALA:O	1:a:279:ASN:ND2	2.25	0.62
1:c:244:VAL:H	1:c:271:THR:HG22	1.65	0.62
1:D:154:TYR:N	1:E:399:GLN:OE1	2.33	0.61
1:G:287:ILE:HD12	1:G:301:SER:HB2	1.80	0.61
1:I:167:SER:O	1:I:169:ILE:N	2.33	0.61
1:R:257:THR:HB	1:R:308:LYS:HB3	1.82	0.61
1:U:148:GLN:NE2	1:U:152:ASN:O	2.33	0.61
1:V:275:ALA:O	1:V:279:ASN:ND2	2.28	0.61
1:b:381:ALA:HB2	1:c:267:GLY:HA3	1.81	0.61
1:A:118:ALA:O	1:D:425:ARG:NH1	2.33	0.61
1:D:444:ARG:O	1:D:448:LYS:HB2	2.00	0.61
1:E:261:ASN:ND2	1:E:284:LYS:O	2.34	0.61
1:G:452:PHE:HA	1:G:455:GLU:HB2	1.82	0.61
1:I:157:ILE:HD12	1:I:425:ARG:HE	1.66	0.61
1:I:461:LYS:O	1:I:465:LEU:HG	1.99	0.61
1:P:288:THR:HB	1:P:300:THR:HB	1.82	0.61
1:Q:34:THR:HG23	1:Q:36:TYR:H	1.64	0.61
1:S:40:SER:O	1:T:416:ARG:NH2	2.34	0.61
1:V:308:LYS:HG2	1:V:350:ILE:HG22	1.81	0.61
1:f:15:GLN:HE22	1:f:473:LEU:HD13	1.65	0.61
1:g:61:LEU:HG	1:g:433:LEU:HD12	1.81	0.61
1:C:79:GLU:HG3	1:C:83:GLN:HE21	1.66	0.61
1:D:450:THR:HG23	1:D:452:PHE:HD2	1.65	0.61
1:M:127:SER:HA	1:M:138:LEU:HD11	1.81	0.61
1:M:168:ALA:HA	1:M:385:SER:HB2	1.82	0.61
1:M:239:VAL:HG22	1:M:300:THR:HG23	1.81	0.61
1:O:222:ALA:HA	1:O:225:MET:HE2	1.82	0.61
1:P:133:GLY:HA2	1:S:53:ARG:HD2	1.82	0.61
1:U:29:LEU:HD12	1:W:472:ILE:HG23	1.83	0.61
1:I:95:LEU:HD13	1:I:116:VAL:HG12	1.82	0.61
1:J:185:VAL:HG13	1:J:190:THR:HG21	1.82	0.61
1:T:480:PRO:HA	1:T:483:VAL:HG22	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:34:THR:HG23	1:c:36:TYR:H	1.66	0.61
1:B:168:ALA:HA	1:B:387:VAL:HG12	1.82	0.61
1:E:257:THR:HB	1:E:308:LYS:HB3	1.81	0.61
1:K:16:ARG:HH21	1:L:435:ASN:HA	1.65	0.61
1:K:66:ARG:NH2	1:N:446:ARG:O	2.30	0.61
1:Z:121:ALA:HB3	1:b:425:ARG:HH12	1.65	0.61
1:Z:170:GLY:HA2	1:Z:408:ALA:HB2	1.82	0.61
1:d:66:ARG:HE	1:g:447:ILE:HD12	1.66	0.61
1:g:148:GLN:NE2	1:g:152:ASN:O	2.33	0.61
1:C:82:LEU:O	1:C:86:THR:HG23	2.01	0.61
1:D:452:PHE:HA	1:D:455:GLU:HB2	1.81	0.61
1:Q:167:SER:O	1:Q:169:ILE:N	2.33	0.61
1:U:274:LEU:HA	1:U:277:GLN:HE21	1.66	0.61
1:X:400:ASN:O	1:X:404:VAL:HG23	2.01	0.61
1:G:275:ALA:HB2	1:G:297:LEU:HD21	1.83	0.61
1:H:261:ASN:ND2	1:H:284:LYS:O	2.34	0.61
1:T:159:ILE:HG12	1:T:422:VAL:HG21	1.82	0.61
1:c:30:GLN:HG2	1:f:13:ASN:HD22	1.65	0.61
1:K:92:ILE:HD13	1:K:95:LEU:HD21	1.83	0.61
1:X:269:THR:OG1	1:X:273:ASP:OD2	2.16	0.61
1:A:244:VAL:H	1:A:271:THR:HG22	1.65	0.61
1:H:275:ALA:HB2	1:H:297:LEU:HD21	1.83	0.61
1:H:278:LEU:HD11	1:H:287:ILE:HD11	1.82	0.61
1:P:16:ARG:HH22	1:Q:438:GLU:HB3	1.63	0.61
1:P:198:THR:HA	1:P:211:ALA:HA	1.83	0.61
1:W:93:ARG:HH22	1:W:409:LEU:HD21	1.65	0.61
1:a:308:LYS:HG2	1:a:350:ILE:HG22	1.83	0.61
1:e:143:GLY:O	1:f:290:SER:OG	2.19	0.61
1:B:453:ALA:O	1:e:15:GLN:NE2	2.32	0.61
1:D:75:ALA:HB3	1:D:423:GLN:HE21	1.66	0.61
1:D:82:LEU:O	1:D:86:THR:HG23	2.01	0.61
1:N:216:ASP:OD2	1:N:224:LYS:NZ	2.34	0.61
1:P:157:ILE:HD12	1:P:425:ARG:HE	1.64	0.61
1:a:444:ARG:O	1:a:448:LYS:HB2	1.99	0.61
1:E:175:GLY:HA3	1:E:356:GLN:HG2	1.82	0.60
1:E:255:ASP:HB3	1:E:310:GLY:HA3	1.83	0.60
1:F:136:LYS:HE2	1:F:140:GLY:HA3	1.83	0.60
1:S:200:ASN:ND2	1:S:209:ASN:OD1	2.34	0.60
1:S:374:GLN:HG3	1:S:375:VAL:HG23	1.83	0.60
1:d:82:LEU:O	1:d:86:THR:HG23	2.01	0.60
1:C:33:THR:HG21	1:E:14:THR:HG22	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:358:ASN:HD22	1:C:407:ASN:HD21	1.47	0.60
1:E:121:ALA:HB3	1:H:425:ARG:HH12	1.66	0.60
1:E:374:GLN:HG3	1:E:375:VAL:HG23	1.81	0.60
1:J:177:ASN:ND2	1:J:355:VAL:O	2.34	0.60
1:L:253:ASN:HD22	1:L:266:ALA:HB1	1.65	0.60
1:Q:59:SER:OG	1:R:90:GLN:NE2	2.34	0.60
1:U:208:LYS:HE3	1:U:228:ALA:HB1	1.83	0.60
1:W:61:LEU:HG	1:W:433:LEU:HD12	1.82	0.60
1:g:202:VAL:HG22	1:g:207:VAL:HG13	1.83	0.60
1:D:308:LYS:HG2	1:D:350:ILE:HG22	1.83	0.60
1:J:82:LEU:O	1:J:86:THR:HG23	2.01	0.60
1:P:145:THR:HB	1:Q:103:SER:HB2	1.82	0.60
1:W:253:ASN:OD1	1:W:267:GLY:N	2.31	0.60
1:X:112:LEU:O	1:X:116:VAL:HG23	2.01	0.60
1:Y:400:ASN:O	1:Y:404:VAL:HG23	2.00	0.60
1:A:97:LEU:HD21	1:A:402:ILE:HD11	1.83	0.60
1:D:357:LEU:HD23	1:D:376:PHE:HZ	1.67	0.60
1:D:435:ASN:HA	1:F:16:ARG:HH21	1.65	0.60
1:H:33:THR:HG23	1:K:17:ASN:HD22	1.66	0.60
1:d:460:SER:O	1:d:464:VAL:HG23	2.01	0.60
1:g:198:THR:HA	1:g:211:ALA:HA	1.83	0.60
1:C:468:ALA:O	1:C:472:ILE:HG13	2.01	0.60
1:I:468:ALA:O	1:I:472:ILE:HG12	2.01	0.60
1:J:56:ASN:HA	1:K:90:GLN:HE22	1.66	0.60
1:M:308:LYS:HG2	1:M:350:ILE:HG22	1.83	0.60
1:N:121:ALA:HB3	1:P:425:ARG:HH12	1.65	0.60
1:V:29:LEU:HD12	1:Y:472:ILE:HG23	1.82	0.60
1:X:200:ASN:ND2	1:X:209:ASN:OD1	2.34	0.60
1:Z:274:LEU:HA	1:Z:277:GLN:HE21	1.65	0.60
1:a:241:THR:HA	1:a:298:THR:HA	1.83	0.60
1:a:461:LYS:NZ	1:a:462:ASN:OD1	2.34	0.60
1:b:257:THR:HB	1:b:308:LYS:HB3	1.83	0.60
1:c:168:ALA:HA	1:c:385:SER:HB2	1.81	0.60
1:B:461:LYS:O	1:B:465:LEU:HG	2.01	0.60
1:C:202:VAL:HB	1:C:364:SER:HB3	1.82	0.60
1:G:169:ILE:H	1:G:169:ILE:HD12	1.66	0.60
1:L:244:VAL:H	1:L:271:THR:HG22	1.66	0.60
1:Q:253:ASN:HD22	1:Q:266:ALA:HB1	1.67	0.60
1:V:15:GLN:NE2	1:Z:453:ALA:O	2.34	0.60
1:X:50:ILE:O	1:X:54:LEU:HG	2.02	0.60
1:X:112:LEU:O	1:X:115:GLU:HG3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:d:258:VAL:HG22	1:d:307:VAL:HG23	1.83	0.60
1:e:268:VAL:HG22	1:e:277:GLN:HE22	1.66	0.60
1:e:299:ILE:HD12	1:e:299:ILE:H	1.66	0.60
1:J:42:LYS:HB2	1:K:420:ALA:HA	1.84	0.60
1:J:244:VAL:H	1:J:271:THR:HG22	1.66	0.60
1:N:40:SER:O	1:O:416:ARG:NH2	2.34	0.60
1:P:9:ILE:HG12	1:P:11:SER:H	1.65	0.60
1:V:19:ASN:O	1:V:23:ASN:ND2	2.34	0.60
1:W:75:ALA:HB3	1:W:423:GLN:HE21	1.66	0.60
1:a:9:ILE:HG13	1:a:11:SER:H	1.66	0.60
1:b:121:ALA:HB3	1:e:425:ARG:HH12	1.67	0.60
1:c:167:SER:O	1:c:169:ILE:N	2.35	0.60
1:A:122:GLU:HB2	1:D:425:ARG:HG3	1.84	0.60
1:A:307:VAL:HB	1:A:351:VAL:HB	1.83	0.60
1:B:322:ALA:HB1	1:B:336:ALA:HB1	1.82	0.60
1:E:403:ALA:O	1:E:407:ASN:ND2	2.34	0.60
1:H:198:THR:HA	1:H:211:ALA:HA	1.83	0.60
1:K:208:LYS:HE3	1:K:228:ALA:HB1	1.84	0.60
1:N:175:GLY:HA3	1:N:356:GLN:HG2	1.83	0.60
1:a:168:ALA:HB2	1:a:386:SER:H	1.66	0.60
1:f:99:SER:O	1:f:101:ASN:ND2	2.35	0.60
1:C:392:ILE:HA	1:C:397:GLY:HA3	1.82	0.60
1:J:245:SER:HG	1:J:320:GLN:H	1.49	0.60
1:T:125:ARG:HD3	1:V:157:ILE:HD11	1.83	0.60
1:D:167:SER:O	1:D:169:ILE:N	2.34	0.60
1:G:122:GLU:HB2	1:J:425:ARG:HG3	1.84	0.60
1:H:171:SER:HB3	1:H:404:VAL:HG12	1.83	0.60
1:K:40:SER:O	1:L:416:ARG:NH2	2.34	0.60
1:K:221:ILE:HG22	1:K:225:MET:HE2	1.84	0.60
1:K:374:GLN:HG3	1:K:375:VAL:HG23	1.84	0.60
1:S:403:ALA:O	1:S:407:ASN:ND2	2.35	0.60
1:U:101:ASN:O	1:U:105:SER:OG	2.17	0.60
1:e:208:LYS:HE3	1:e:228:ALA:HB1	1.84	0.60
1:G:444:ARG:O	1:G:448:LYS:HB2	2.02	0.59
1:Z:257:THR:HB	1:Z:308:LYS:HB3	1.84	0.59
1:e:40:SER:O	1:f:416:ARG:NH2	2.35	0.59
1:e:480:PRO:HA	1:e:483:VAL:HG12	1.84	0.59
1:f:239:VAL:HG13	1:f:300:THR:HG22	1.84	0.59
1:O:235:ARG:NH2	1:O:354:TYR:OH	2.35	0.59
1:X:95:LEU:HD13	1:X:116:VAL:HG22	1.83	0.59
1:e:12:LEU:HA	1:e:15:GLN:OE1	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:118:ALA:O	1:F:425:ARG:NH1	2.35	0.59
1:D:189:ALA:HB3	1:D:337:LYS:HD2	1.84	0.59
1:H:125:ARG:HH22	1:K:432:ASN:HD22	1.49	0.59
1:K:125:ARG:HH22	1:N:432:ASN:HD22	1.48	0.59
1:M:57:GLN:O	1:M:61:LEU:HG	2.03	0.59
1:N:82:LEU:O	1:N:86:THR:HG23	2.02	0.59
1:a:82:LEU:O	1:a:86:THR:HG23	2.02	0.59
1:c:42:LYS:HB2	1:d:420:ALA:HA	1.82	0.59
1:g:403:ALA:O	1:g:407:ASN:ND2	2.33	0.59
1:D:322:ALA:HB1	1:D:336:ALA:HB1	1.83	0.59
1:I:84:GLN:HE22	1:L:431:ASP:HB2	1.66	0.59
1:N:159:ILE:HG12	1:N:422:VAL:HG21	1.84	0.59
1:O:82:LEU:O	1:O:86:THR:HG23	2.03	0.59
1:Q:9:ILE:HG22	1:Q:11:SER:H	1.67	0.59
1:Y:253:ASN:HB2	1:Y:314:GLY:HA2	1.83	0.59
1:a:76:GLN:HG3	1:c:439:ASN:HD21	1.66	0.59
1:A:132:PHE:HB3	1:A:137:LEU:HD21	1.83	0.59
1:B:253:ASN:HB2	1:B:314:GLY:HA2	1.83	0.59
1:L:125:ARG:HH22	1:O:432:ASN:HD22	1.50	0.59
1:M:157:ILE:HD12	1:M:425:ARG:HE	1.68	0.59
1:W:9:ILE:HG22	1:W:11:SER:H	1.68	0.59
1:A:253:ASN:HB2	1:A:314:GLY:HA2	1.85	0.59
1:G:76:GLN:HB3	1:J:439:ASN:HD21	1.68	0.59
1:H:89:LEU:HD22	1:H:405:VAL:HG23	1.83	0.59
1:P:145:THR:HG21	1:Q:104:ASN:HB2	1.84	0.59
1:X:275:ALA:O	1:X:279:ASN:ND2	2.29	0.59
1:X:387:VAL:HG23	1:X:404:VAL:HG11	1.84	0.59
1:D:418:ASP:O	1:D:422:VAL:HG23	2.03	0.59
1:c:221:ILE:HG22	1:c:225:MET:HE3	1.83	0.59
1:B:168:ALA:O	1:B:385:SER:OG	2.20	0.59
1:C:29:LEU:HD12	1:E:472:ILE:HG23	1.84	0.59
1:G:185:VAL:HG13	1:G:190:THR:HG21	1.84	0.59
1:L:125:ARG:HD3	1:O:157:ILE:HD11	1.85	0.59
1:M:167:SER:O	1:M:169:ILE:N	2.36	0.59
1:Q:208:LYS:HD2	1:Q:228:ALA:HB1	1.85	0.59
1:A:293:ASP:OD2	1:B:142:PHE:N	2.35	0.59
1:E:198:THR:HA	1:E:211:ALA:HA	1.85	0.59
1:I:58:ILE:HA	1:I:61:LEU:HD12	1.85	0.59
1:I:418:ASP:O	1:I:422:VAL:HG23	2.03	0.59
1:L:447:ILE:HG23	1:L:448:LYS:HG2	1.84	0.59
1:P:374:GLN:HG3	1:P:375:VAL:HG23	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:225:MET:HE2	1:S:357:LEU:HD11	1.85	0.59
1:V:40:SER:O	1:W:416:ARG:NH2	2.36	0.59
1:V:132:PHE:HB3	1:V:137:LEU:HD21	1.85	0.59
1:b:82:LEU:HD12	1:b:412:ILE:HG23	1.85	0.59
1:C:460:SER:HB2	1:g:481:GLN:NE2	2.18	0.59
1:R:261:ASN:ND2	1:R:284:LYS:O	2.35	0.59
1:V:8:ASN:HD21	1:W:445:SER:HB3	1.68	0.59
1:W:99:SER:O	1:W:101:ASN:ND2	2.36	0.59
1:X:253:ASN:HB2	1:X:314:GLY:HA2	1.85	0.59
1:Y:169:ILE:H	1:Y:169:ILE:HD12	1.66	0.59
1:f:84:GLN:O	1:f:88:ILE:HG12	2.03	0.59
1:A:11:SER:O	1:A:14:THR:OG1	2.21	0.58
1:C:475:GLN:HA	1:C:478:GLN:HE21	1.67	0.58
1:F:198:THR:HA	1:F:211:ALA:HA	1.84	0.58
1:F:200:ASN:ND2	1:F:209:ASN:OD1	2.36	0.58
1:I:202:VAL:HB	1:I:364:SER:HB2	1.85	0.58
1:J:69:ASN:HA	1:J:72:ILE:HD12	1.85	0.58
1:K:444:ARG:O	1:K:448:LYS:HB2	2.03	0.58
1:e:403:ALA:O	1:e:407:ASN:ND2	2.36	0.58
1:B:184:SER:HB3	1:B:374:GLN:HA	1.85	0.58
1:H:278:LEU:HG	1:H:289:ALA:HB2	1.85	0.58
1:P:463:GLN:OE1	1:S:475:GLN:NE2	2.35	0.58
1:Q:235:ARG:NH2	1:Q:354:TYR:OH	2.36	0.58
1:S:274:LEU:O	1:S:278:LEU:HG	2.02	0.58
1:X:167:SER:O	1:X:169:ILE:N	2.36	0.58
1:a:225:MET:HE1	1:a:355:VAL:HG11	1.85	0.58
1:c:261:ASN:HB2	1:c:284:LYS:HE2	1.84	0.58
1:d:6:ASN:HB3	1:d:484:LEU:HD21	1.85	0.58
1:A:239:VAL:HG22	1:A:300:THR:HG23	1.85	0.58
1:N:77:THR:HG22	1:P:439:ASN:HB3	1.83	0.58
1:O:133:GLY:HA2	1:Q:53:ARG:HD2	1.84	0.58
1:R:109:ARG:HB2	1:R:393:SER:HA	1.85	0.58
1:X:163:ASN:ND2	1:X:169:ILE:O	2.36	0.58
1:b:278:LEU:HD21	1:b:287:ILE:HD11	1.85	0.58
1:e:8:ASN:HD21	1:f:445:SER:HB3	1.68	0.58
1:f:169:ILE:HD12	1:f:169:ILE:H	1.68	0.58
1:A:460:SER:O	1:A:464:VAL:HG23	2.04	0.58
1:B:444:ARG:O	1:B:448:LYS:HB2	2.03	0.58
1:D:99:SER:O	1:D:101:ASN:ND2	2.37	0.58
1:Q:168:ALA:C	1:Q:170:GLY:H	2.12	0.58
1:R:61:LEU:HD22	1:R:433:LEU:HD11	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:121:ALA:HB3	1:W:425:ARG:HH12	1.68	0.58
1:X:383:GLN:HE22	1:X:384:LYS:HE3	1.67	0.58
1:b:93:ARG:NH2	1:b:406:ASP:OD2	2.36	0.58
1:F:19:ASN:O	1:F:23:ASN:ND2	2.36	0.58
1:L:19:ASN:O	1:L:23:ASN:ND2	2.37	0.58
1:R:100:ALA:O	1:R:103:SER:N	2.33	0.58
1:R:167:SER:OG	1:R:387:VAL:O	2.22	0.58
1:S:42:LYS:HB2	1:T:420:ALA:HA	1.84	0.58
1:W:403:ALA:O	1:W:407:ASN:ND2	2.36	0.58
1:X:84:GLN:O	1:X:88:ILE:HG12	2.03	0.58
1:Y:50:ILE:O	1:Y:54:LEU:HG	2.03	0.58
1:D:99:SER:HB2	1:D:392:ILE:HG23	1.85	0.58
1:H:16:ARG:HH21	1:I:435:ASN:HA	1.67	0.58
1:K:145:THR:HG21	1:L:104:ASN:HB2	1.86	0.58
1:P:93:ARG:HH12	1:P:409:LEU:HD22	1.68	0.58
1:R:18:LEU:O	1:R:466:GLN:NE2	2.37	0.58
1:V:82:LEU:O	1:V:86:THR:HG23	2.03	0.58
1:X:11:SER:O	1:X:14:THR:OG1	2.18	0.58
1:Z:57:GLN:O	1:Z:61:LEU:HG	2.02	0.58
1:Z:200:ASN:ND2	1:Z:209:ASN:OD1	2.36	0.58
1:f:255:ASP:O	1:f:310:GLY:N	2.37	0.58
1:F:82:LEU:O	1:F:86:THR:HG23	2.03	0.58
1:J:275:ALA:O	1:J:279:ASN:ND2	2.28	0.58
1:K:127:SER:HB3	1:K:139:ASP:HB3	1.84	0.58
1:M:74:LEU:HD11	1:M:137:LEU:HD11	1.86	0.58
1:N:52:ASN:O	1:N:56:ASN:ND2	2.36	0.58
1:Q:238:THR:HB	1:Q:301:SER:HB3	1.84	0.58
1:Q:390:VAL:HG11	1:Q:404:VAL:HG21	1.84	0.58
1:Y:84:GLN:O	1:Y:88:ILE:HG12	2.04	0.58
1:Z:66:ARG:HH22	1:b:37:ARG:HD3	1.68	0.58
1:b:34:THR:HG23	1:b:36:TYR:H	1.69	0.58
1:d:170:GLY:HA2	1:d:408:ALA:HB2	1.85	0.58
1:A:93:ARG:NH2	1:A:406:ASP:OD2	2.37	0.58
1:D:387:VAL:HG23	1:D:404:VAL:HG11	1.86	0.58
1:E:217:SER:HB2	1:E:306:ASN:HB2	1.86	0.58
1:G:121:ALA:HB3	1:J:425:ARG:HH12	1.68	0.58
1:I:121:ALA:HB3	1:L:425:ARG:HH12	1.68	0.58
1:I:387:VAL:HG23	1:I:404:VAL:HG11	1.85	0.58
1:L:429:THR:O	1:L:433:LEU:HG	2.04	0.58
1:Q:84:GLN:O	1:Q:88:ILE:HG12	2.03	0.58
1:a:167:SER:O	1:a:169:ILE:N	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:74:LEU:HG	1:c:137:LEU:HD21	1.85	0.58
1:d:202:VAL:HG22	1:d:207:VAL:HG13	1.86	0.58
1:e:398:ALA:O	1:e:402:ILE:HG13	2.04	0.58
1:g:99:SER:O	1:g:101:ASN:ND2	2.37	0.58
1:E:376:PHE:HB3	1:E:379:ALA:HB3	1.84	0.58
1:R:99:SER:O	1:R:101:ASN:ND2	2.36	0.58
1:R:177:ASN:HD21	1:R:327:GLY:HA3	1.68	0.58
1:Z:34:THR:HG23	1:Z:36:TYR:H	1.69	0.58
1:d:200:ASN:ND2	1:d:209:ASN:OD1	2.37	0.58
1:f:172:TYR:CE1	1:f:404:VAL:HG22	2.39	0.58
1:A:177:ASN:HD22	1:A:328:SER:HB3	1.69	0.58
1:B:82:LEU:O	1:B:86:THR:HG23	2.04	0.58
1:E:177:ASN:HD21	1:E:328:SER:H	1.50	0.58
1:I:167:SER:HA	1:I:387:VAL:HG12	1.86	0.58
1:N:274:LEU:O	1:N:278:LEU:HG	2.04	0.58
1:T:167:SER:O	1:T:169:ILE:N	2.36	0.58
1:X:109:ARG:HB2	1:X:393:SER:HA	1.86	0.58
1:b:484:LEU:HB3	1:b:488:ARG:HH21	1.67	0.58
1:D:21:SER:HB2	1:D:466:GLN:HE22	1.68	0.57
1:F:484:LEU:HB3	1:F:488:ARG:HE	1.69	0.57
1:V:484:LEU:HB3	1:V:488:ARG:HE	1.69	0.57
1:d:121:ALA:HB3	1:g:425:ARG:HH12	1.67	0.57
1:g:83:GLN:OE1	1:g:416:ARG:NH1	2.37	0.57
1:F:430:ILE:O	1:F:434:THR:HG23	2.04	0.57
1:M:387:VAL:HG23	1:M:404:VAL:HG11	1.85	0.57
1:Q:77:THR:HG22	1:T:439:ASN:HB3	1.86	0.57
1:Q:484:LEU:HB3	1:Q:488:ARG:HE	1.68	0.57
1:U:292:ASN:HD21	1:U:294:LYS:HB2	1.69	0.57
1:Y:275:ALA:O	1:Y:279:ASN:ND2	2.36	0.57
1:a:69:ASN:HA	1:a:72:ILE:HD12	1.86	0.57
1:b:40:SER:O	1:c:416:ARG:NH2	2.37	0.57
1:b:84:GLN:O	1:b:88:ILE:HG12	2.05	0.57
1:d:185:VAL:O	1:d:352:THR:OG1	2.22	0.57
1:A:168:ALA:HA	1:A:387:VAL:HG12	1.85	0.57
1:E:200:ASN:ND2	1:E:209:ASN:OD1	2.37	0.57
1:J:468:ALA:O	1:J:472:ILE:HG12	2.04	0.57
1:N:123:LEU:HA	1:N:126:ILE:HD12	1.84	0.57
1:N:170:GLY:HA2	1:N:408:ALA:HB2	1.86	0.57
1:O:452:PHE:HA	1:O:455:GLU:HB2	1.85	0.57
1:P:77:THR:HA	1:S:439:ASN:HD22	1.69	0.57
1:T:127:SER:HA	1:T:138:LEU:HD11	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:84:GLN:O	1:U:88:ILE:HG12	2.03	0.57
1:W:202:VAL:HG22	1:W:207:VAL:HG13	1.86	0.57
1:Y:257:THR:HB	1:Y:308:LYS:HB3	1.86	0.57
1:b:14:THR:O	1:b:18:LEU:HG	2.05	0.57
1:b:450:THR:OG1	1:b:455:GLU:OE2	2.22	0.57
1:g:82:LEU:O	1:g:86:THR:HG23	2.04	0.57
1:C:418:ASP:O	1:C:422:VAL:HG23	2.05	0.57
1:C:461:LYS:HE2	1:C:465:LEU:HD11	1.87	0.57
1:K:403:ALA:O	1:K:407:ASN:ND2	2.37	0.57
1:N:88:ILE:O	1:N:92:ILE:HG13	2.05	0.57
1:R:175:GLY:HA3	1:R:356:GLN:HG2	1.86	0.57
1:R:452:PHE:HA	1:R:455:GLU:HB2	1.86	0.57
1:T:21:SER:HB3	1:T:465:LEU:HD23	1.86	0.57
1:T:188:THR:OG1	1:T:337:LYS:NZ	2.37	0.57
1:a:99:SER:HB2	1:a:392:ILE:HG23	1.86	0.57
1:c:400:ASN:O	1:c:404:VAL:HG23	2.04	0.57
1:e:19:ASN:O	1:e:23:ASN:ND2	2.36	0.57
1:D:294:LYS:NZ	1:F:141:SER:OG	2.37	0.57
1:H:66:ARG:NH2	1:K:446:ARG:O	2.37	0.57
1:M:18:LEU:O	1:M:466:GLN:NE2	2.38	0.57
1:e:58:ILE:HD11	1:e:444:ARG:HH11	1.69	0.57
1:g:469:GLY:O	1:g:473:LEU:HG	2.04	0.57
1:E:167:SER:OG	1:E:387:VAL:O	2.22	0.57
1:G:275:ALA:O	1:G:279:ASN:ND2	2.29	0.57
1:L:226:ASP:OD1	1:L:227:GLY:N	2.37	0.57
1:R:403:ALA:O	1:R:407:ASN:ND2	2.36	0.57
1:T:84:GLN:O	1:T:88:ILE:HG12	2.05	0.57
1:Y:322:ALA:HB1	1:Y:336:ALA:HB1	1.85	0.57
1:Z:473:LEU:HD23	1:b:487:LEU:HD21	1.87	0.57
1:a:132:PHE:HB3	1:a:137:LEU:HD11	1.87	0.57
1:f:396:ASP:OD1	1:f:397:GLY:N	2.38	0.57
1:B:53:ARG:HD2	1:f:133:GLY:HA2	1.86	0.57
1:D:244:VAL:H	1:D:271:THR:HG22	1.70	0.57
1:E:33:THR:HG23	1:H:17:ASN:HD22	1.68	0.57
1:K:23:ASN:O	1:K:27:THR:HG23	2.05	0.57
1:K:167:SER:OG	1:K:387:VAL:O	2.23	0.57
1:M:46:ALA:O	1:M:50:ILE:HG12	2.03	0.57
1:M:244:VAL:H	1:M:271:THR:HG22	1.68	0.57
1:W:38:ILE:HB	1:W:448:LYS:HD2	1.86	0.57
1:X:125:ARG:HH22	1:a:432:ASN:HD22	1.52	0.57
1:b:116:VAL:HG11	1:b:390:VAL:HG21	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:123:LEU:HA	1:f:126:ILE:HD12	1.85	0.57
1:A:484:LEU:HB3	1:A:488:ARG:HE	1.69	0.57
1:D:104:ASN:HB2	1:F:145:THR:HG21	1.84	0.57
1:Q:61:LEU:HD22	1:Q:433:LEU:HD11	1.86	0.57
1:X:99:SER:O	1:X:101:ASN:ND2	2.36	0.57
1:X:125:ARG:HD3	1:a:157:ILE:HD11	1.86	0.57
1:Z:133:GLY:HA2	1:b:53:ARG:HD2	1.86	0.57
1:b:219:LYS:HZ1	1:b:305:GLU:HA	1.69	0.57
1:f:247:VAL:HG11	1:f:269:THR:HA	1.86	0.57
1:A:439:ASN:HB3	1:g:77:THR:HG22	1.86	0.57
1:B:425:ARG:HG3	1:f:122:GLU:HB2	1.87	0.57
1:F:221:ILE:O	1:F:225:MET:HG2	2.04	0.57
1:G:163:ASN:ND2	1:G:169:ILE:O	2.37	0.57
1:I:125:ARG:HH21	1:I:126:ILE:HG22	1.70	0.57
1:K:480:PRO:HA	1:K:483:VAL:HG22	1.86	0.57
1:Q:468:ALA:O	1:Q:472:ILE:HG12	2.05	0.57
1:Z:173:GLN:HG2	1:Z:358:ASN:HA	1.87	0.57
1:a:253:ASN:HB2	1:a:314:GLY:HA2	1.87	0.57
1:a:481:GLN:HB3	1:d:464:VAL:HG22	1.86	0.57
1:b:403:ALA:O	1:b:407:ASN:ND2	2.36	0.57
1:d:239:VAL:HG22	1:d:300:THR:HG23	1.86	0.57
1:d:403:ALA:O	1:d:407:ASN:ND2	2.38	0.57
1:e:74:LEU:HD11	1:e:137:LEU:HD11	1.86	0.57
1:e:288:THR:HB	1:e:300:THR:HB	1.87	0.57
1:A:200:ASN:ND2	1:A:209:ASN:OD1	2.34	0.57
1:E:484:LEU:HD23	1:E:487:LEU:HD21	1.87	0.57
1:G:172:TYR:CE1	1:G:404:VAL:HG22	2.40	0.57
1:H:202:VAL:HG22	1:H:207:VAL:HG13	1.87	0.57
1:H:217:SER:HB2	1:H:306:ASN:HB2	1.86	0.57
1:K:37:ARG:HB3	1:K:450:THR:HA	1.85	0.57
1:L:113:GLN:HA	1:L:116:VAL:HG12	1.87	0.57
1:P:135:ARG:HH21	1:Q:104:ASN:HD22	1.53	0.57
1:T:160:SER:OG	1:T:418:ASP:OD2	2.23	0.57
1:Z:384:LYS:NZ	1:a:276:ASP:OD2	2.30	0.57
1:b:42:LYS:HB2	1:c:420:ALA:HA	1.86	0.57
1:e:484:LEU:HB3	1:e:488:ARG:HH21	1.68	0.57
1:A:199:VAL:HG22	1:A:371:GLN:HB3	1.87	0.56
1:D:253:ASN:HB2	1:D:314:GLY:HA2	1.87	0.56
1:G:468:ALA:O	1:G:472:ILE:HG12	2.05	0.56
1:H:61:LEU:HD22	1:H:433:LEU:HD11	1.86	0.56
1:J:258:VAL:HG12	1:J:307:VAL:HG23	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:257:THR:HB	1:K:308:LYS:HB3	1.85	0.56
1:L:116:VAL:HG22	1:L:120:GLN:HE21	1.69	0.56
1:S:62:ASN:O	1:S:65:THR:OG1	2.22	0.56
1:Z:50:ILE:O	1:Z:54:LEU:HG	2.05	0.56
1:a:172:TYR:HE1	1:a:404:VAL:HG22	1.70	0.56
1:b:38:ILE:HG23	1:b:448:LYS:HD2	1.86	0.56
1:b:278:LEU:HD22	1:b:289:ALA:HB2	1.87	0.56
1:e:167:SER:OG	1:e:387:VAL:O	2.23	0.56
1:e:323:VAL:HG23	1:e:337:LYS:HE2	1.86	0.56
1:C:244:VAL:H	1:C:271:THR:HG22	1.70	0.56
1:G:131:THR:HG22	1:G:136:LYS:HB3	1.86	0.56
1:H:84:GLN:NE2	1:K:431:ASP:OD1	2.39	0.56
1:K:113:GLN:HA	1:K:116:VAL:HG12	1.87	0.56
1:Q:481:GLN:NE2	1:U:460:SER:HB2	2.21	0.56
1:T:37:ARG:HB2	1:T:450:THR:HA	1.85	0.56
1:U:173:GLN:HA	1:U:363:TYR:HE1	1.70	0.56
1:V:258:VAL:HG12	1:V:307:VAL:HG23	1.87	0.56
1:e:257:THR:HB	1:e:308:LYS:HB2	1.86	0.56
1:f:216:ASP:OD2	1:f:224:LYS:NZ	2.38	0.56
1:f:308:LYS:HG3	1:f:350:ILE:HG22	1.85	0.56
1:g:86:THR:HG21	1:g:416:ARG:HH11	1.70	0.56
1:C:199:VAL:HG11	1:C:375:VAL:HG21	1.87	0.56
1:G:74:LEU:HD11	1:G:137:LEU:HD11	1.87	0.56
1:I:86:THR:HG21	1:I:416:ARG:HH11	1.70	0.56
1:I:131:THR:HG21	1:L:152:ASN:HD21	1.70	0.56
1:N:201:LEU:HG	1:N:229:ILE:HG13	1.88	0.56
1:P:403:ALA:O	1:P:407:ASN:ND2	2.36	0.56
1:Q:172:TYR:CE1	1:Q:404:VAL:HG12	2.36	0.56
1:R:273:ASP:O	1:R:277:GLN:HG2	2.04	0.56
1:U:125:ARG:HD3	1:W:157:ILE:HD11	1.87	0.56
1:V:16:ARG:HA	1:V:19:ASN:ND2	2.20	0.56
1:X:444:ARG:O	1:X:448:LYS:HB2	2.05	0.56
1:Y:168:ALA:C	1:Y:170:GLY:H	2.14	0.56
1:Z:220:ALA:O	1:Z:224:LYS:HG3	2.05	0.56
1:c:402:ILE:HA	1:c:405:VAL:HG12	1.87	0.56
1:d:292:ASN:HD21	1:d:294:LYS:HB2	1.70	0.56
1:A:61:LEU:HG	1:A:433:LEU:HD12	1.87	0.56
1:A:116:VAL:HG22	1:A:120:GLN:HE21	1.71	0.56
1:A:466:GLN:O	1:A:470:THR:HG23	2.05	0.56
1:B:470:THR:HG23	1:F:486:LEU:HD23	1.86	0.56
1:F:452:PHE:HA	1:F:455:GLU:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:167:SER:O	1:J:169:ILE:N	2.38	0.56
1:O:177:ASN:HA	1:O:376:PHE:HA	1.88	0.56
1:P:121:ALA:HB3	1:S:425:ARG:HH12	1.70	0.56
1:S:478:GLN:HB3	1:S:481:GLN:HE21	1.69	0.56
1:Z:148:GLN:NE2	1:Z:152:ASN:O	2.38	0.56
1:b:22:SER:O	1:b:26:ASN:ND2	2.37	0.56
1:b:125:ARG:HD3	1:e:157:ILE:HD11	1.86	0.56
1:d:461:LYS:O	1:d:465:LEU:HG	2.05	0.56
1:e:420:ALA:O	1:e:424:ASN:ND2	2.37	0.56
1:E:125:ARG:HH22	1:H:432:ASN:HD22	1.51	0.56
1:F:96:ALA:O	1:F:99:SER:OG	2.22	0.56
1:P:8:ASN:HD21	1:Q:445:SER:HB2	1.70	0.56
1:S:198:THR:HA	1:S:211:ALA:HA	1.88	0.56
1:a:184:SER:HB2	1:a:374:GLN:HA	1.86	0.56
1:e:46:ALA:O	1:e:50:ILE:HG12	2.05	0.56
1:A:144:THR:HG23	1:A:160:SER:HA	1.88	0.56
1:C:6:ASN:HB3	1:C:484:LEU:HD21	1.87	0.56
1:L:172:TYR:HE1	1:L:404:VAL:HG22	1.71	0.56
1:P:202:VAL:HG13	1:P:207:VAL:HG22	1.88	0.56
1:Q:66:ARG:NH1	1:R:98:GLN:OE1	2.38	0.56
1:Q:447:ILE:HG23	1:Q:448:LYS:HG2	1.86	0.56
1:T:329:ASP:OD2	1:T:331:LYS:NZ	2.38	0.56
1:W:110:ALA:O	1:W:114:LYS:HG2	2.06	0.56
1:X:168:ALA:C	1:X:170:GLY:H	2.14	0.56
1:X:430:ILE:O	1:X:434:THR:HG23	2.06	0.56
1:Y:46:ALA:O	1:Y:50:ILE:HG12	2.06	0.56
1:Z:257:THR:O	1:Z:308:LYS:N	2.36	0.56
1:b:113:GLN:OE1	1:b:392:ILE:N	2.38	0.56
1:f:444:ARG:O	1:f:448:LYS:HB2	2.05	0.56
1:B:322:ALA:HA	1:B:338:ASN:HA	1.87	0.56
1:C:168:ALA:HA	1:C:387:VAL:HG12	1.87	0.56
1:F:57:GLN:O	1:F:61:LEU:HG	2.06	0.56
1:F:460:SER:O	1:F:464:VAL:HG23	2.05	0.56
1:M:322:ALA:HB1	1:M:336:ALA:HB1	1.87	0.56
1:N:144:THR:HB	1:O:290:SER:HB2	1.87	0.56
1:N:403:ALA:O	1:N:407:ASN:ND2	2.39	0.56
1:Q:46:ALA:O	1:Q:50:ILE:HG12	2.05	0.56
1:a:241:THR:HG22	1:a:298:THR:HB	1.87	0.56
1:L:82:LEU:HD12	1:L:412:ILE:HG23	1.87	0.56
1:L:235:ARG:NH2	1:L:354:TYR:OH	2.39	0.56
1:P:46:ALA:O	1:P:50:ILE:HG12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:244:VAL:H	1:Q:271:THR:HG22	1.70	0.56
1:R:312:GLN:HG2	1:R:342:ALA:HA	1.87	0.56
1:T:168:ALA:C	1:T:170:GLY:H	2.13	0.56
1:U:312:GLN:HG2	1:U:342:ALA:HA	1.87	0.56
1:V:257:THR:N	1:V:308:LYS:O	2.38	0.56
1:Z:61:LEU:HD13	1:Z:436:ILE:HG23	1.88	0.56
1:a:61:LEU:HD13	1:a:436:ILE:HG23	1.88	0.56
1:c:177:ASN:HD22	1:c:328:SER:HB3	1.70	0.56
1:d:84:GLN:O	1:d:88:ILE:HG12	2.06	0.56
1:e:113:GLN:OE1	1:e:392:ILE:N	2.38	0.56
1:f:244:VAL:H	1:f:271:THR:HG22	1.69	0.56
1:A:445:SER:HB3	1:B:8:ASN:HD21	1.70	0.56
1:J:439:ASN:HA	1:J:442:ASN:HD22	1.71	0.56
1:M:16:ARG:HH22	1:N:438:GLU:HB2	1.70	0.56
1:M:168:ALA:C	1:M:170:GLY:H	2.14	0.56
1:Q:88:ILE:O	1:Q:92:ILE:HG13	2.06	0.56
1:T:42:LYS:HB2	1:U:420:ALA:HA	1.86	0.56
1:U:38:ILE:HD12	1:U:44:ASP:HB3	1.87	0.56
1:X:257:THR:HB	1:X:308:LYS:HB3	1.88	0.56
1:d:75:ALA:HB3	1:d:423:GLN:HE21	1.70	0.56
1:d:93:ARG:HH22	1:d:409:LEU:HD21	1.70	0.56
1:f:177:ASN:HA	1:f:376:PHE:HA	1.87	0.56
1:f:466:GLN:O	1:f:470:THR:HG23	2.05	0.56
1:A:360:PRO:HA	1:A:407:ASN:HB3	1.88	0.56
1:D:59:SER:OG	1:E:90:GLN:NE2	2.38	0.56
1:F:403:ALA:O	1:F:407:ASN:ND2	2.38	0.56
1:H:418:ASP:O	1:H:422:VAL:HG23	2.05	0.56
1:I:400:ASN:O	1:I:404:VAL:HG23	2.05	0.56
1:J:42:LYS:HD3	1:K:423:GLN:HB2	1.88	0.56
1:J:247:VAL:HG11	1:J:269:THR:HA	1.87	0.56
1:J:322:ALA:HB1	1:J:336:ALA:HB1	1.88	0.56
1:U:125:ARG:HH22	1:W:432:ASN:HD22	1.52	0.56
1:X:77:THR:HA	1:a:439:ASN:HD22	1.70	0.56
1:Y:248:THR:HG1	1:Y:317:THR:HG1	1.53	0.56
1:g:167:SER:OG	1:g:387:VAL:O	2.23	0.56
1:G:42:LYS:HE3	1:H:427:LYS:NZ	2.20	0.55
1:H:113:GLN:HE22	1:H:392:ILE:H	1.54	0.55
1:M:15:GLN:O	1:M:19:ASN:ND2	2.39	0.55
1:O:383:GLN:HE22	1:O:384:LYS:HE3	1.71	0.55
1:P:83:GLN:OE1	1:P:416:ARG:NH1	2.39	0.55
1:Y:59:SER:HA	1:Y:62:ASN:ND2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:g:461:LYS:HA	1:g:464:VAL:HG12	1.88	0.55
1:H:120:GLN:HE22	1:H:388:ALA:HA	1.71	0.55
1:L:226:ASP:HB2	1:L:234:ALA:HB3	1.88	0.55
1:Q:275:ALA:O	1:Q:279:ASN:ND2	2.26	0.55
1:V:9:ILE:HG22	1:V:11:SER:H	1.70	0.55
1:W:34:THR:HG23	1:W:36:TYR:H	1.71	0.55
1:b:122:GLU:HB2	1:e:425:ARG:HG3	1.88	0.55
1:A:172:TYR:CZ	1:A:174:VAL:HG22	2.42	0.55
1:A:274:LEU:O	1:A:278:LEU:HG	2.06	0.55
1:D:484:LEU:HB3	1:D:488:ARG:HH21	1.70	0.55
1:N:173:GLN:HG2	1:N:358:ASN:HA	1.88	0.55
1:N:239:VAL:HG22	1:N:300:THR:HG23	1.87	0.55
1:W:305:GLU:HG2	1:W:306:ASN:H	1.70	0.55
1:d:99:SER:O	1:d:101:ASN:ND2	2.39	0.55
1:f:12:LEU:HB2	1:g:438:GLU:OE2	2.07	0.55
1:A:450:THR:HG23	1:A:452:PHE:HD2	1.72	0.55
1:D:222:ALA:HA	1:D:225:MET:HE2	1.89	0.55
1:F:435:ASN:O	1:F:438:GLU:HG2	2.05	0.55
1:J:40:SER:OG	1:K:83:GLN:NE2	2.39	0.55
1:L:167:SER:O	1:L:169:ILE:N	2.39	0.55
1:X:415:GLN:O	1:X:419:LEU:HG	2.06	0.55
1:Y:40:SER:O	1:Z:416:ARG:NH2	2.39	0.55
1:Y:257:THR:N	1:Y:308:LYS:O	2.40	0.55
1:d:255:ASP:HA	1:d:264:SER:HA	1.89	0.55
1:A:29:LEU:HD12	1:D:472:ILE:HG23	1.88	0.55
1:B:432:ASN:HB2	1:f:84:GLN:HG2	1.89	0.55
1:D:16:ARG:HH21	1:E:435:ASN:HA	1.72	0.55
1:D:293:ASP:OD2	1:F:142:PHE:N	2.35	0.55
1:H:238:THR:HA	1:H:353:GLY:HA3	1.88	0.55
1:I:6:ASN:HB3	1:I:484:LEU:HD21	1.88	0.55
1:K:339:VAL:HG23	1:K:340:VAL:HG23	1.87	0.55
1:N:409:LEU:HA	1:N:412:ILE:HG22	1.88	0.55
1:T:235:ARG:NH2	1:T:354:TYR:OH	2.39	0.55
1:V:53:ARG:HA	1:V:56:ASN:HD22	1.72	0.55
1:V:253:ASN:HB2	1:V:314:GLY:HA2	1.87	0.55
1:W:424:ASN:HA	1:W:427:LYS:HD3	1.89	0.55
1:Z:93:ARG:NH2	1:Z:409:LEU:HD21	2.21	0.55
1:a:77:THR:HG22	1:c:439:ASN:HB3	1.87	0.55
1:f:84:GLN:HA	1:f:87:ASN:HD22	1.71	0.55
1:B:258:VAL:HG12	1:B:307:VAL:HG13	1.87	0.55
1:B:460:SER:O	1:B:464:VAL:HG13	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:466:GLN:O	1:C:470:THR:HG23	2.07	0.55
1:K:222:ALA:HA	1:K:225:MET:HE3	1.89	0.55
1:M:245:SER:HG	1:M:320:GLN:H	1.54	0.55
1:M:484:LEU:HB3	1:M:488:ARG:HE	1.71	0.55
1:Y:184:SER:HB2	1:Y:374:GLN:HA	1.88	0.55
1:c:357:LEU:HD12	1:c:376:PHE:HE2	1.71	0.55
1:f:269:THR:OG1	1:f:273:ASP:OD2	2.20	0.55
1:g:202:VAL:HG13	1:g:207:VAL:HG22	1.88	0.55
1:C:57:GLN:O	1:C:61:LEU:HG	2.06	0.55
1:C:196:SER:O	1:C:374:GLN:NE2	2.32	0.55
1:C:461:LYS:O	1:C:465:LEU:HG	2.06	0.55
1:D:168:ALA:C	1:D:170:GLY:H	2.15	0.55
1:F:208:LYS:HE3	1:F:228:ALA:HB1	1.88	0.55
1:I:109:ARG:HA	1:I:112:LEU:HB2	1.89	0.55
1:M:263:VAL:HG13	1:M:281:ASN:HD22	1.71	0.55
1:Q:40:SER:O	1:R:416:ARG:NH2	2.40	0.55
1:S:232:LEU:HD21	1:S:357:LEU:HD13	1.87	0.55
1:a:177:ASN:ND2	1:a:355:VAL:O	2.40	0.55
1:d:255:ASP:HB3	1:d:310:GLY:HA3	1.88	0.55
1:e:200:ASN:ND2	1:e:209:ASN:OD1	2.40	0.55
1:e:466:GLN:O	1:e:470:THR:HG23	2.07	0.55
1:E:481:GLN:NE2	1:I:460:SER:HB2	2.21	0.55
1:I:357:LEU:HD23	1:I:376:PHE:HZ	1.71	0.55
1:L:418:ASP:O	1:L:422:VAL:HG23	2.06	0.55
1:R:112:LEU:O	1:R:115:GLU:HG2	2.06	0.55
1:U:212:ILE:HD11	1:U:221:ILE:HG12	1.87	0.55
1:V:84:GLN:HA	1:V:87:ASN:HD22	1.72	0.55
1:Z:292:ASN:HD21	1:Z:294:LYS:HB2	1.71	0.55
1:c:74:LEU:O	1:c:77:THR:OG1	2.22	0.55
1:e:312:GLN:HG2	1:e:342:ALA:HA	1.87	0.55
1:A:291:ILE:HA	1:A:297:LEU:HA	1.88	0.55
1:D:172:TYR:HE1	1:D:404:VAL:HG22	1.72	0.55
1:M:89:LEU:HA	1:M:92:ILE:HD12	1.89	0.55
1:O:102:GLY:O	1:O:103:SER:OG	2.24	0.55
1:O:322:ALA:HA	1:O:338:ASN:HA	1.89	0.55
1:P:16:ARG:HH21	1:Q:435:ASN:HA	1.71	0.55
1:Y:247:VAL:HG11	1:Y:269:THR:HA	1.88	0.55
1:Z:113:GLN:OE1	1:Z:392:ILE:N	2.39	0.55
1:Z:427:LYS:O	1:Z:430:ILE:HG22	2.06	0.55
1:a:118:ALA:O	1:c:425:ARG:NH1	2.39	0.55
1:b:185:VAL:HG22	1:b:190:THR:HG21	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:278:LEU:O	1:E:282:SER:N	2.40	0.55
1:G:273:ASP:O	1:G:277:GLN:HG3	2.07	0.55
1:H:143:GLY:O	1:I:290:SER:OG	2.25	0.55
1:I:383:GLN:HG2	1:I:384:LYS:HG3	1.89	0.55
1:J:121:ALA:HB3	1:M:425:ARG:HH12	1.71	0.55
1:L:9:ILE:HG12	1:L:11:SER:H	1.71	0.55
1:L:245:SER:HG	1:L:320:GLN:H	1.54	0.55
1:L:400:ASN:O	1:L:404:VAL:HG23	2.07	0.55
1:M:253:ASN:HB2	1:M:314:GLY:HA2	1.88	0.55
1:M:420:ALA:HA	1:M:423:GLN:HE21	1.70	0.55
1:N:189:ALA:H	1:N:337:LYS:HZ3	1.55	0.55
1:N:427:LYS:O	1:N:430:ILE:HG22	2.07	0.55
1:P:175:GLY:HA3	1:P:356:GLN:HG2	1.89	0.55
1:V:167:SER:O	1:V:169:ILE:N	2.39	0.55
1:b:21:SER:OG	1:b:466:GLN:NE2	2.36	0.55
1:d:15:GLN:O	1:d:19:ASN:ND2	2.40	0.55
1:d:198:THR:HA	1:d:211:ALA:HA	1.87	0.55
1:d:400:ASN:O	1:d:404:VAL:HG23	2.06	0.55
1:A:46:ALA:O	1:A:50:ILE:HG12	2.07	0.54
1:A:420:ALA:HA	1:B:42:LYS:HB2	1.90	0.54
1:E:23:ASN:O	1:E:27:THR:HG23	2.07	0.54
1:F:185:VAL:HG22	1:F:190:THR:HG21	1.89	0.54
1:I:253:ASN:HB2	1:I:314:GLY:HA2	1.89	0.54
1:I:322:ALA:HA	1:I:338:ASN:HA	1.88	0.54
1:J:274:LEU:O	1:J:278:LEU:HG	2.07	0.54
1:J:322:ALA:HA	1:J:338:ASN:HA	1.88	0.54
1:O:387:VAL:HG23	1:O:404:VAL:HG11	1.89	0.54
1:V:91:ARG:O	1:V:95:LEU:HG	2.07	0.54
1:a:125:ARG:HD3	1:c:157:ILE:HD11	1.89	0.54
1:c:40:SER:O	1:d:416:ARG:NH2	2.40	0.54
1:c:468:ALA:O	1:c:472:ILE:HG12	2.07	0.54
1:e:170:GLY:HA2	1:e:408:ALA:HB2	1.89	0.54
1:f:484:LEU:HB3	1:f:488:ARG:HH21	1.69	0.54
1:D:84:GLN:HA	1:D:87:ASN:ND2	2.23	0.54
1:F:432:ASN:O	1:F:436:ILE:HG12	2.08	0.54
1:G:177:ASN:HD22	1:G:328:SER:HB3	1.72	0.54
1:H:461:LYS:O	1:H:465:LEU:HG	2.07	0.54
1:K:273:ASP:O	1:K:277:GLN:HG2	2.07	0.54
1:K:452:PHE:HA	1:K:455:GLU:HB3	1.89	0.54
1:P:171:SER:H	1:P:404:VAL:HG23	1.73	0.54
1:a:160:SER:OG	1:a:418:ASP:OD1	2.24	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:139:ASP:HA	1:b:164:ALA:HA	1.88	0.54
1:e:92:ILE:HD13	1:e:95:LEU:HD21	1.89	0.54
1:f:423:GLN:O	1:f:427:LYS:HG2	2.08	0.54
1:A:122:GLU:O	1:A:126:ILE:HG13	2.07	0.54
1:B:59:SER:HA	1:B:62:ASN:ND2	2.23	0.54
1:C:22:SER:O	1:C:26:ASN:ND2	2.40	0.54
1:D:42:LYS:HB2	1:E:420:ALA:HA	1.88	0.54
1:E:74:LEU:HD11	1:E:137:LEU:HD11	1.90	0.54
1:K:109:ARG:HB2	1:K:393:SER:HA	1.89	0.54
1:K:125:ARG:HD3	1:N:157:ILE:HD11	1.89	0.54
1:M:154:TYR:H	1:N:399:GLN:HG2	1.70	0.54
1:N:173:GLN:HA	1:N:363:TYR:HE1	1.72	0.54
1:N:255:ASP:HB3	1:N:310:GLY:HA3	1.89	0.54
1:P:484:LEU:HB3	1:P:488:ARG:HE	1.71	0.54
1:S:135:ARG:HH21	1:T:104:ASN:HB3	1.73	0.54
1:Z:49:GLN:O	1:Z:53:ARG:HG3	2.07	0.54
1:a:232:LEU:HD12	1:a:357:LEU:HD12	1.89	0.54
1:f:131:THR:HG22	1:f:136:LYS:HB3	1.90	0.54
1:f:168:ALA:C	1:f:170:GLY:H	2.15	0.54
1:C:253:ASN:HB2	1:C:314:GLY:HA2	1.88	0.54
1:O:266:ALA:O	1:O:277:GLN:NE2	2.39	0.54
1:R:95:LEU:HD23	1:R:115:GLU:HG3	1.89	0.54
1:W:484:LEU:HD12	1:a:464:VAL:HG22	1.89	0.54
1:a:177:ASN:HD22	1:a:328:SER:HB3	1.72	0.54
1:e:257:THR:HA	1:e:262:THR:HG23	1.89	0.54
1:J:53:ARG:HA	1:J:56:ASN:HD22	1.72	0.54
1:K:400:ASN:O	1:K:404:VAL:HG23	2.07	0.54
1:P:253:ASN:OD1	1:P:267:GLY:N	2.35	0.54
1:S:144:THR:HG23	1:S:160:SER:HA	1.90	0.54
1:W:257:THR:HB	1:W:308:LYS:HB3	1.89	0.54
1:X:23:ASN:O	1:X:27:THR:HG23	2.07	0.54
1:Z:46:ALA:O	1:Z:50:ILE:HG12	2.07	0.54
1:c:322:ALA:HA	1:c:338:ASN:HA	1.89	0.54
1:e:84:GLN:HA	1:e:87:ASN:ND2	2.22	0.54
1:g:268:VAL:HG22	1:g:277:GLN:HE22	1.71	0.54
1:g:447:ILE:HG23	1:g:448:LYS:HG2	1.89	0.54
1:A:66:ARG:HA	1:A:69:ASN:HD22	1.73	0.54
1:A:125:ARG:HD3	1:D:157:ILE:HD11	1.88	0.54
1:A:221:ILE:HB	1:A:225:MET:HE1	1.89	0.54
1:B:400:ASN:O	1:B:404:VAL:HG23	2.08	0.54
1:B:458:ALA:O	1:B:461:LYS:HG2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:288:THR:HB	1:E:300:THR:HB	1.90	0.54
1:F:167:SER:OG	1:F:387:VAL:O	2.25	0.54
1:F:461:LYS:O	1:F:465:LEU:HG	2.08	0.54
1:I:61:LEU:HD13	1:I:437:SER:HA	1.89	0.54
1:I:77:THR:HA	1:L:439:ASN:HD22	1.73	0.54
1:K:292:ASN:HD21	1:K:294:LYS:HB2	1.72	0.54
1:O:121:ALA:HB3	1:Q:425:ARG:HH12	1.71	0.54
1:O:444:ARG:O	1:O:448:LYS:HB2	2.07	0.54
1:R:398:ALA:O	1:R:402:ILE:HG12	2.08	0.54
1:U:33:THR:HG21	1:W:14:THR:HG22	1.89	0.54
1:Z:122:GLU:HB2	1:b:425:ARG:HG3	1.89	0.54
1:Z:312:GLN:HG3	1:Z:342:ALA:HA	1.90	0.54
1:c:396:ASP:HB2	1:c:400:ASN:HD22	1.73	0.54
1:e:95:LEU:HD13	1:e:116:VAL:HG22	1.90	0.54
1:f:322:ALA:HB1	1:f:336:ALA:HB1	1.89	0.54
1:g:396:ASP:OD1	1:g:397:GLY:N	2.40	0.54
1:A:168:ALA:O	1:A:385:SER:OG	2.26	0.54
1:C:23:ASN:O	1:C:27:THR:HG23	2.07	0.54
1:G:123:LEU:HA	1:G:126:ILE:HD12	1.89	0.54
1:G:484:LEU:HB3	1:G:488:ARG:HE	1.71	0.54
1:K:301:SER:OG	1:K:305:GLU:OE1	2.15	0.54
1:L:172:TYR:CE1	1:L:404:VAL:HG22	2.42	0.54
1:B:30:GLN:HG2	1:F:13:ASN:HD22	1.72	0.54
1:E:61:LEU:HD22	1:E:433:LEU:HD11	1.90	0.54
1:G:82:LEU:HD12	1:G:412:ILE:HG23	1.89	0.54
1:G:387:VAL:HG23	1:G:404:VAL:HG11	1.89	0.54
1:H:173:GLN:HG2	1:H:358:ASN:HA	1.90	0.54
1:L:109:ARG:HB2	1:L:393:SER:HA	1.90	0.54
1:M:21:SER:HB2	1:M:466:GLN:HE21	1.72	0.54
1:R:170:GLY:HA2	1:R:408:ALA:HB2	1.89	0.54
1:U:66:ARG:NH2	1:W:446:ARG:O	2.39	0.54
1:W:122:GLU:HG3	1:Z:425:ARG:HG3	1.90	0.54
1:W:437:SER:O	1:W:441:THR:HG23	2.07	0.54
1:X:83:GLN:OE1	1:X:416:ARG:NH1	2.41	0.54
1:Y:269:THR:OG1	1:Y:273:ASP:OD2	2.23	0.54
1:F:9:ILE:HG22	1:F:11:SER:H	1.72	0.54
1:H:33:THR:HG21	1:K:14:THR:HG22	1.89	0.54
1:I:168:ALA:C	1:I:170:GLY:H	2.16	0.54
1:I:185:VAL:HG13	1:I:190:THR:HG21	1.90	0.54
1:I:347:THR:HG22	1:I:348:THR:H	1.71	0.54
1:K:7:THR:HG21	1:L:36:TYR:HE1	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:219:LYS:HD3	1:M:303:THR:HB	1.90	0.54
1:O:168:ALA:HA	1:O:385:SER:HB2	1.90	0.54
1:Q:121:ALA:HB3	1:T:425:ARG:HH12	1.73	0.54
1:Q:452:PHE:HA	1:Q:455:GLU:HB3	1.89	0.54
1:Z:125:ARG:HH22	1:b:432:ASN:HD22	1.54	0.54
1:Z:484:LEU:HB3	1:Z:488:ARG:HE	1.73	0.54
1:F:200:ASN:N	1:F:366:SER:O	2.41	0.54
1:I:452:PHE:HA	1:I:455:GLU:HG2	1.90	0.54
1:J:269:THR:OG1	1:J:273:ASP:OD2	2.25	0.54
1:O:77:THR:HA	1:Q:439:ASN:HD22	1.73	0.54
1:Q:61:LEU:O	1:Q:65:THR:HG23	2.08	0.54
1:S:23:ASN:O	1:S:27:THR:HG23	2.07	0.54
1:X:247:VAL:HG11	1:X:269:THR:HA	1.89	0.54
1:Y:172:TYR:HE1	1:Y:404:VAL:HG22	1.73	0.54
1:Y:185:VAL:HG13	1:Y:190:THR:HG21	1.88	0.54
1:b:167:SER:OG	1:b:387:VAL:O	2.26	0.54
1:c:168:ALA:C	1:c:170:GLY:H	2.16	0.54
1:B:173:GLN:HB3	1:B:382:ALA:HB1	1.90	0.53
1:B:216:ASP:OD2	1:B:224:LYS:NZ	2.41	0.53
1:D:239:VAL:HG13	1:D:300:THR:HG22	1.90	0.53
1:E:208:LYS:HE3	1:E:228:ALA:HB1	1.90	0.53
1:G:308:LYS:HG2	1:G:350:ILE:HG22	1.88	0.53
1:H:460:SER:O	1:H:464:VAL:HG23	2.07	0.53
1:M:91:ARG:NH1	1:M:94:ASP:OD2	2.41	0.53
1:M:202:VAL:HB	1:M:364:SER:HB2	1.89	0.53
1:O:168:ALA:C	1:O:170:GLY:H	2.16	0.53
1:T:131:THR:HG22	1:T:136:LYS:HB3	1.88	0.53
1:a:57:GLN:O	1:a:61:LEU:HG	2.08	0.53
1:A:121:ALA:HB3	1:D:425:ARG:HH12	1.74	0.53
1:A:173:GLN:NE2	1:A:361:THR:O	2.42	0.53
1:I:432:ASN:O	1:I:436:ILE:HG12	2.09	0.53
1:I:461:LYS:HE2	1:I:465:LEU:HD11	1.91	0.53
1:J:253:ASN:HB2	1:J:314:GLY:HA2	1.89	0.53
1:O:33:THR:HG21	1:Q:14:THR:HG22	1.90	0.53
1:O:172:TYR:CE1	1:O:404:VAL:HG22	2.43	0.53
1:P:138:LEU:HD23	1:P:138:LEU:H	1.73	0.53
1:P:220:ALA:O	1:P:224:LYS:HG2	2.08	0.53
1:Q:19:ASN:O	1:Q:23:ASN:ND2	2.41	0.53
1:Q:291:ILE:HD12	1:Q:297:LEU:HB2	1.90	0.53
1:T:102:GLY:O	1:T:103:SER:OG	2.26	0.53
1:U:32:LEU:HD23	1:W:472:ILE:HD11	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:131:THR:HG21	1:W:152:ASN:HD21	1.72	0.53
1:U:189:ALA:HB3	1:U:337:LYS:HE2	1.90	0.53
1:V:121:ALA:HB3	1:Y:425:ARG:HH12	1.74	0.53
1:W:358:ASN:HD21	1:W:403:ALA:HB1	1.73	0.53
1:W:431:ASP:O	1:W:435:ASN:ND2	2.39	0.53
1:Y:74:LEU:HD11	1:Y:137:LEU:HD11	1.90	0.53
1:Z:159:ILE:HG12	1:Z:422:VAL:HG21	1.91	0.53
1:Z:167:SER:OG	1:Z:387:VAL:O	2.26	0.53
1:a:291:ILE:HB	1:a:297:LEU:HD13	1.91	0.53
1:e:22:SER:O	1:e:26:ASN:ND2	2.41	0.53
1:B:425:ARG:HH12	1:f:121:ALA:HB3	1.72	0.53
1:I:172:TYR:CE1	1:I:404:VAL:HG22	2.43	0.53
1:J:167:SER:HA	1:J:387:VAL:HG12	1.89	0.53
1:R:6:ASN:HB3	1:R:484:LEU:HD21	1.89	0.53
1:R:252:LEU:HA	1:R:312:GLN:HE22	1.74	0.53
1:Z:123:LEU:HA	1:Z:126:ILE:HD12	1.89	0.53
1:a:484:LEU:HD23	1:d:464:VAL:HG12	1.91	0.53
1:b:77:THR:HG22	1:e:439:ASN:HB3	1.91	0.53
1:f:275:ALA:O	1:f:279:ASN:ND2	2.31	0.53
1:A:257:THR:HB	1:A:308:LYS:HB3	1.91	0.53
1:B:15:GLN:NE2	1:D:453:ALA:O	2.42	0.53
1:E:29:LEU:HD12	1:H:472:ILE:HG23	1.89	0.53
1:E:258:VAL:HB	1:E:285:LEU:HD12	1.90	0.53
1:G:213:ALA:N	1:G:216:ASP:OD2	2.42	0.53
1:L:392:ILE:HA	1:L:397:GLY:HA3	1.91	0.53
1:O:471:ALA:HA	1:Q:486:LEU:HD21	1.89	0.53
1:S:185:VAL:O	1:S:352:THR:OG1	2.26	0.53
1:V:168:ALA:HB2	1:V:386:SER:H	1.74	0.53
1:W:65:THR:HG23	1:W:430:ILE:HG13	1.90	0.53
1:W:129:THR:OG1	1:Z:155:GLU:OE1	2.24	0.53
1:Z:219:LYS:HZ1	1:Z:305:GLU:HG3	1.73	0.53
1:a:19:ASN:O	1:a:23:ASN:ND2	2.41	0.53
1:a:469:GLY:O	1:a:473:LEU:HG	2.09	0.53
1:b:220:ALA:O	1:b:224:LYS:HG2	2.08	0.53
1:d:480:PRO:O	1:d:484:LEU:HG	2.09	0.53
1:B:172:TYR:CE2	1:B:404:VAL:HG22	2.43	0.53
1:B:173:GLN:NE2	1:B:361:THR:O	2.42	0.53
1:C:322:ALA:HB1	1:C:336:ALA:HB1	1.89	0.53
1:G:200:ASN:HB2	1:G:366:SER:HB3	1.89	0.53
1:K:74:LEU:O	1:K:77:THR:OG1	2.24	0.53
1:L:324:LYS:HE2	1:L:332:PHE:HE2	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:172:TYR:HE1	1:O:404:VAL:HG22	1.73	0.53
1:T:172:TYR:CE1	1:T:404:VAL:HG22	2.42	0.53
1:e:292:ASN:HD21	1:e:294:LYS:HB2	1.73	0.53
1:g:101:ASN:O	1:g:105:SER:OG	2.19	0.53
1:D:424:ASN:HA	1:D:427:LYS:HD3	1.90	0.53
1:E:73:SER:O	1:E:77:THR:HG23	2.08	0.53
1:H:292:ASN:HD21	1:H:294:LYS:HB2	1.72	0.53
1:K:201:LEU:HG	1:K:229:ILE:HG13	1.91	0.53
1:V:322:ALA:HA	1:V:338:ASN:HA	1.90	0.53
1:b:132:PHE:HB3	1:b:137:LEU:HD21	1.91	0.53
1:c:290:SER:N	1:c:298:THR:O	2.41	0.53
1:g:185:VAL:HG22	1:g:374:GLN:HB2	1.89	0.53
1:g:292:ASN:HD21	1:g:294:LYS:HB2	1.72	0.53
1:C:86:THR:HG21	1:C:416:ARG:HH11	1.72	0.53
1:E:235:ARG:NE	1:E:356:GLN:OE1	2.41	0.53
1:G:37:ARG:HB3	1:G:450:THR:HA	1.91	0.53
1:I:466:GLN:O	1:I:470:THR:HG23	2.08	0.53
1:J:461:LYS:NZ	1:J:462:ASN:OD1	2.42	0.53
1:J:472:ILE:HA	1:J:475:GLN:HE21	1.72	0.53
1:R:84:GLN:O	1:R:88:ILE:HG12	2.09	0.53
1:c:396:ASP:N	1:c:396:ASP:OD1	2.42	0.53
1:e:173:GLN:HG2	1:e:358:ASN:HA	1.90	0.53
1:A:252:LEU:HA	1:A:312:GLN:HE21	1.73	0.53
1:B:30:GLN:O	1:B:34:THR:HG22	2.09	0.53
1:D:247:VAL:HG11	1:D:269:THR:HA	1.91	0.53
1:G:168:ALA:C	1:G:170:GLY:H	2.17	0.53
1:I:59:SER:HA	1:I:62:ASN:ND2	2.24	0.53
1:O:253:ASN:HB2	1:O:314:GLY:HA2	1.91	0.53
1:P:239:VAL:HG22	1:P:300:THR:HG23	1.89	0.53
1:S:96:ALA:O	1:S:99:SER:OG	2.24	0.53
1:T:66:ARG:NH2	1:V:446:ARG:O	2.41	0.53
1:Y:109:ARG:HB2	1:Y:393:SER:HA	1.91	0.53
1:Z:424:ASN:HA	1:Z:427:LYS:HD3	1.91	0.53
1:c:125:ARG:HD3	1:f:157:ILE:HD11	1.90	0.53
1:d:174:VAL:HG22	1:d:383:GLN:HG3	1.91	0.53
1:d:288:THR:HB	1:d:300:THR:HB	1.91	0.53
1:f:257:THR:N	1:f:308:LYS:O	2.41	0.53
1:g:93:ARG:NH2	1:g:406:ASP:OD1	2.41	0.53
1:A:248:THR:OG1	1:A:317:THR:OG1	2.26	0.53
1:G:272:GLN:NE2	1:G:276:ASP:OD2	2.39	0.53
1:H:93:ARG:HH22	1:H:409:LEU:HD21	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:273:ASP:O	1:H:277:GLN:HG2	2.08	0.53
1:K:202:VAL:HG13	1:K:207:VAL:HG22	1.91	0.53
1:Q:77:THR:HA	1:T:439:ASN:HD22	1.73	0.53
1:Q:269:THR:OG1	1:Q:273:ASP:OD2	2.26	0.53
1:W:59:SER:OG	1:X:90:GLN:NE2	2.42	0.53
1:a:82:LEU:HD12	1:a:412:ILE:HG23	1.89	0.53
1:d:77:THR:HG22	1:g:439:ASN:HB3	1.90	0.53
1:f:99:SER:HB2	1:f:392:ILE:HG23	1.91	0.53
1:f:447:ILE:HG23	1:f:448:LYS:HG2	1.90	0.53
1:g:173:GLN:HG3	1:g:359:SER:N	2.24	0.53
1:E:170:GLY:HA2	1:E:408:ALA:HB2	1.90	0.53
1:H:136:LYS:HE2	1:H:140:GLY:HA3	1.91	0.53
1:I:168:ALA:HB2	1:I:386:SER:H	1.74	0.53
1:K:424:ASN:HA	1:K:427:LYS:HD3	1.91	0.53
1:N:177:ASN:HD21	1:N:327:GLY:HA3	1.74	0.53
1:X:74:LEU:O	1:X:77:THR:OG1	2.24	0.53
1:X:229:ILE:HB	1:X:232:LEU:HD22	1.89	0.53
1:Y:12:LEU:HB2	1:Z:438:GLU:CD	2.33	0.53
1:c:257:THR:HG22	1:c:262:THR:HG23	1.91	0.53
1:d:173:GLN:HG2	1:d:358:ASN:HA	1.90	0.53
1:g:112:LEU:O	1:g:115:GLU:HG3	2.08	0.53
1:A:17:ASN:HD21	1:g:34:THR:HA	1.74	0.52
1:A:90:GLN:HE22	1:B:56:ASN:HA	1.73	0.52
1:B:123:LEU:HA	1:B:126:ILE:HD12	1.90	0.52
1:D:56:ASN:OD1	1:E:93:ARG:NH1	2.42	0.52
1:I:235:ARG:NH2	1:I:354:TYR:OH	2.42	0.52
1:N:258:VAL:HG21	1:N:287:ILE:HD11	1.91	0.52
1:V:57:GLN:O	1:V:61:LEU:HG	2.08	0.52
1:a:74:LEU:HD13	1:a:147:PHE:HZ	1.74	0.52
1:e:73:SER:O	1:e:77:THR:HG23	2.09	0.52
1:g:30:GLN:O	1:g:34:THR:HG22	2.08	0.52
1:G:418:ASP:O	1:G:422:VAL:HG23	2.09	0.52
1:H:78:ALA:HB2	1:H:137:LEU:HD22	1.91	0.52
1:H:170:GLY:HA2	1:H:408:ALA:HB2	1.90	0.52
1:O:15:GLN:O	1:O:19:ASN:ND2	2.43	0.52
1:O:275:ALA:O	1:O:279:ASN:ND2	2.29	0.52
1:Q:42:LYS:NZ	1:R:79:GLU:HG2	2.23	0.52
1:R:468:ALA:O	1:R:472:ILE:HG12	2.09	0.52
1:S:205:GLY:N	1:T:281:ASN:OD1	2.33	0.52
1:V:73:SER:O	1:V:77:THR:HG23	2.09	0.52
1:V:244:VAL:H	1:V:271:THR:HG22	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:23:ASN:HA	1:W:26:ASN:HD21	1.75	0.52
1:W:481:GLN:HA	1:a:464:VAL:HG21	1.92	0.52
1:Y:402:ILE:HA	1:Y:405:VAL:HG22	1.90	0.52
1:Z:450:THR:HG23	1:Z:452:PHE:HD1	1.74	0.52
1:f:42:LYS:HB2	1:g:420:ALA:HA	1.91	0.52
1:W:118:ALA:O	1:Z:425:ARG:NH1	2.42	0.52
1:C:373:SER:HA	1:C:377:GLY:HA2	1.91	0.52
1:D:267:GLY:HA3	1:F:381:ALA:HB2	1.90	0.52
1:L:160:SER:OG	1:L:418:ASP:OD2	2.26	0.52
1:S:177:ASN:HD21	1:S:327:GLY:HA3	1.73	0.52
1:T:219:LYS:O	1:T:223:GLU:HG2	2.10	0.52
1:W:175:GLY:HA3	1:W:356:GLN:HG2	1.91	0.52
1:W:396:ASP:OD1	1:W:397:GLY:N	2.42	0.52
1:X:163:ASN:OD1	1:X:164:ALA:N	2.43	0.52
1:Y:91:ARG:O	1:Y:95:LEU:HG	2.10	0.52
1:f:288:THR:OG1	1:f:300:THR:OG1	2.27	0.52
1:D:121:ALA:HB3	1:G:425:ARG:HH12	1.74	0.52
1:D:360:PRO:HA	1:D:407:ASN:HB3	1.91	0.52
1:G:447:ILE:HG23	1:G:448:LYS:HG2	1.92	0.52
1:H:109:ARG:HA	1:H:112:LEU:HB2	1.90	0.52
1:I:162:GLN:HB2	1:I:415:GLN:HG2	1.92	0.52
1:I:225:MET:HE3	1:I:234:ALA:HB1	1.92	0.52
1:O:125:ARG:HD3	1:Q:157:ILE:HD11	1.89	0.52
1:T:442:ASN:O	1:T:446:ARG:HG3	2.10	0.52
1:c:101:ASN:HB3	1:c:106:ASP:HB3	1.91	0.52
1:d:61:LEU:HB2	1:d:433:LEU:HD11	1.91	0.52
1:e:185:VAL:HG22	1:e:190:THR:HG21	1.90	0.52
1:f:18:LEU:O	1:f:466:GLN:NE2	2.42	0.52
1:C:99:SER:O	1:C:101:ASN:ND2	2.43	0.52
1:D:357:LEU:HD23	1:D:376:PHE:CZ	2.45	0.52
1:F:273:ASP:O	1:F:277:GLN:HG2	2.08	0.52
1:H:84:GLN:HB3	1:H:126:ILE:HD13	1.92	0.52
1:L:291:ILE:HA	1:L:297:LEU:HA	1.91	0.52
1:M:172:TYR:HE1	1:M:404:VAL:HG22	1.74	0.52
1:O:244:VAL:H	1:O:271:THR:HG22	1.73	0.52
1:U:100:ALA:O	1:U:103:SER:N	2.36	0.52
1:a:109:ARG:HB2	1:a:393:SER:HA	1.92	0.52
1:a:177:ASN:HD21	1:a:355:VAL:H	1.57	0.52
1:g:174:VAL:HG23	1:g:175:GLY:H	1.74	0.52
1:B:244:VAL:H	1:B:271:THR:HG22	1.75	0.52
1:D:253:ASN:HD22	1:D:266:ALA:HB1	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:200:ASN:ND2	1:H:209:ASN:OD1	2.43	0.52
1:K:450:THR:HG23	1:K:452:PHE:HD1	1.73	0.52
1:N:447:ILE:HG23	1:N:448:LYS:HG2	1.92	0.52
1:U:177:ASN:HD21	1:U:327:GLY:HA3	1.75	0.52
1:W:208:LYS:HE3	1:W:228:ALA:HB1	1.92	0.52
1:Y:61:LEU:HD13	1:Y:436:ILE:HG13	1.92	0.52
1:Y:389:SER:HA	1:b:284:LYS:HG2	1.92	0.52
1:Y:484:LEU:HB3	1:Y:488:ARG:HE	1.75	0.52
1:d:148:GLN:NE2	1:d:152:ASN:O	2.40	0.52
1:f:46:ALA:O	1:f:50:ILE:HG12	2.10	0.52
1:D:113:GLN:HA	1:D:116:VAL:HG12	1.91	0.52
1:D:322:ALA:HA	1:D:338:ASN:HA	1.90	0.52
1:I:21:SER:OG	1:I:466:GLN:NE2	2.28	0.52
1:N:468:ALA:O	1:N:472:ILE:HG13	2.10	0.52
1:O:95:LEU:O	1:O:99:SER:HB3	2.10	0.52
1:O:162:GLN:HB2	1:O:415:GLN:HG2	1.91	0.52
1:R:61:LEU:O	1:R:65:THR:HG23	2.10	0.52
1:U:198:THR:HA	1:U:211:ALA:HA	1.91	0.52
1:Z:19:ASN:O	1:Z:23:ASN:ND2	2.43	0.52
1:g:398:ALA:O	1:g:402:ILE:HG12	2.09	0.52
1:A:425:ARG:NH1	1:g:118:ALA:O	2.43	0.52
1:E:61:LEU:O	1:E:65:THR:HG23	2.09	0.52
1:F:278:LEU:O	1:F:282:SER:N	2.43	0.52
1:H:24:ASP:HB2	1:H:462:ASN:HD21	1.74	0.52
1:H:88:ILE:HG21	1:H:123:LEU:HB2	1.91	0.52
1:J:28:SER:O	1:J:32:LEU:HG	2.10	0.52
1:L:460:SER:HA	1:L:463:GLN:HE21	1.75	0.52
1:M:431:ASP:O	1:M:435:ASN:ND2	2.33	0.52
1:Q:400:ASN:O	1:Q:404:VAL:HG13	2.10	0.52
1:R:480:PRO:O	1:R:484:LEU:HG	2.09	0.52
1:S:175:GLY:HA3	1:S:356:GLN:HG2	1.90	0.52
1:S:292:ASN:HD21	1:S:294:LYS:HB2	1.75	0.52
1:U:170:GLY:HA2	1:U:408:ALA:HB2	1.92	0.52
1:U:424:ASN:HA	1:U:427:LYS:HD3	1.92	0.52
1:V:18:LEU:O	1:V:466:GLN:NE2	2.42	0.52
1:W:14:THR:O	1:W:18:LEU:HG	2.09	0.52
1:Y:329:ASP:OD2	1:Y:331:LYS:NZ	2.43	0.52
1:c:253:ASN:HD22	1:c:266:ALA:HB1	1.75	0.52
1:A:129:THR:OG1	1:D:155:GLU:OE2	2.19	0.52
1:C:184:SER:HB3	1:C:374:GLN:HA	1.92	0.52
1:E:469:GLY:O	1:E:473:LEU:HG	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:29:LEU:HD11	1:J:475:GLN:HE22	1.75	0.52
1:H:74:LEU:O	1:H:77:THR:OG1	2.26	0.52
1:I:25:LEU:HD12	1:I:466:GLN:HG3	1.91	0.52
1:K:219:LYS:HZ1	1:K:305:GLU:HA	1.74	0.52
1:M:87:ASN:O	1:M:90:GLN:HG3	2.10	0.52
1:N:101:ASN:O	1:N:105:SER:OG	2.27	0.52
1:P:476:ALA:HA	1:P:479:LEU:HD13	1.91	0.52
1:U:273:ASP:O	1:U:277:GLN:HG2	2.10	0.52
1:Y:23:ASN:O	1:Y:27:THR:HG23	2.09	0.52
1:Y:479:LEU:O	1:Y:483:VAL:HG23	2.10	0.52
1:g:258:VAL:HG21	1:g:287:ILE:HD11	1.92	0.52
1:A:157:ILE:HD11	1:g:125:ARG:HD3	1.92	0.51
1:A:173:GLN:HB2	1:A:359:SER:HB3	1.92	0.51
1:C:322:ALA:HA	1:C:338:ASN:HA	1.92	0.51
1:C:434:THR:O	1:C:438:GLU:HG2	2.09	0.51
1:D:167:SER:C	1:D:169:ILE:H	2.19	0.51
1:G:87:ASN:O	1:G:90:GLN:HG2	2.09	0.51
1:H:185:VAL:HG22	1:H:190:THR:HG21	1.92	0.51
1:X:172:TYR:CE1	1:X:404:VAL:HG22	2.45	0.51
1:C:360:PRO:HA	1:C:407:ASN:HB3	1.92	0.51
1:D:133:GLY:HA2	1:G:53:ARG:HD3	1.91	0.51
1:D:235:ARG:NH2	1:D:354:TYR:OH	2.43	0.51
1:I:73:SER:O	1:I:77:THR:HG23	2.10	0.51
1:J:177:ASN:HD21	1:J:355:VAL:H	1.58	0.51
1:L:168:ALA:C	1:L:170:GLY:H	2.19	0.51
1:M:25:LEU:HD11	1:M:463:GLN:HE21	1.75	0.51
1:T:118:ALA:O	1:V:425:ARG:NH1	2.43	0.51
1:Y:202:VAL:HB	1:Y:364:SER:HB3	1.91	0.51
1:f:202:VAL:HB	1:f:364:SER:HB3	1.91	0.51
1:A:37:ARG:HD3	1:g:66:ARG:HH22	1.75	0.51
1:A:113:GLN:HA	1:A:116:VAL:HG12	1.92	0.51
1:C:400:ASN:O	1:C:404:VAL:HG23	2.10	0.51
1:H:481:GLN:HA	1:L:464:VAL:HG11	1.92	0.51
1:L:291:ILE:HB	1:L:297:LEU:HD13	1.92	0.51
1:L:357:LEU:HD23	1:L:363:TYR:CE2	2.46	0.51
1:N:66:ARG:NH1	1:O:98:GLN:OE1	2.43	0.51
1:Z:208:LYS:HE3	1:Z:228:ALA:HB1	1.92	0.51
1:a:15:GLN:O	1:a:19:ASN:ND2	2.43	0.51
1:b:242:ALA:HB3	1:b:297:LEU:HD13	1.93	0.51
1:c:255:ASP:O	1:c:310:GLY:N	2.37	0.51
1:G:53:ARG:HA	1:G:56:ASN:HD22	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:438:GLU:O	1:J:442:ASN:ND2	2.43	0.51
1:K:40:SER:OG	1:L:83:GLN:NE2	2.44	0.51
1:K:58:ILE:HD11	1:K:444:ARG:HH11	1.76	0.51
1:L:46:ALA:O	1:L:50:ILE:HG12	2.11	0.51
1:N:185:VAL:O	1:N:352:THR:OG1	2.28	0.51
1:O:57:GLN:O	1:O:61:LEU:HG	2.11	0.51
1:P:468:ALA:O	1:P:472:ILE:HG13	2.10	0.51
1:R:263:VAL:HG22	1:R:285:LEU:HD21	1.92	0.51
1:R:292:ASN:HD21	1:R:294:LYS:HB2	1.75	0.51
1:W:258:VAL:HG11	1:W:287:ILE:HD11	1.92	0.51
1:Y:21:SER:OG	1:Y:466:GLN:NE2	2.40	0.51
1:a:121:ALA:HB3	1:c:425:ARG:HH12	1.74	0.51
1:a:189:ALA:HB3	1:a:337:LYS:HD2	1.92	0.51
1:e:171:SER:H	1:e:404:VAL:HG13	1.75	0.51
1:f:245:SER:HG	1:f:320:GLN:H	1.57	0.51
1:B:425:ARG:NH1	1:f:118:ALA:O	2.43	0.51
1:B:439:ASN:HB3	1:f:77:THR:HG22	1.92	0.51
1:C:479:LEU:O	1:C:483:VAL:HG23	2.11	0.51
1:F:62:ASN:O	1:F:65:THR:OG1	2.27	0.51
1:H:133:GLY:HA2	1:K:53:ARG:HH12	1.74	0.51
1:I:101:ASN:HD21	1:I:109:ARG:HE	1.59	0.51
1:P:19:ASN:O	1:P:23:ASN:ND2	2.43	0.51
1:S:239:VAL:HG22	1:S:300:THR:HG23	1.93	0.51
1:T:247:VAL:HG11	1:T:269:THR:HA	1.92	0.51
1:T:387:VAL:HG23	1:T:404:VAL:HG11	1.93	0.51
1:U:444:ARG:O	1:U:448:LYS:HB2	2.10	0.51
1:W:273:ASP:O	1:W:277:GLN:HG2	2.11	0.51
1:X:121:ALA:HB3	1:a:425:ARG:HH12	1.75	0.51
1:Y:83:GLN:OE1	1:Y:87:ASN:ND2	2.42	0.51
1:Y:123:LEU:HA	1:Y:126:ILE:HD12	1.92	0.51
1:a:125:ARG:HH21	1:a:126:ILE:HG22	1.75	0.51
1:a:322:ALA:HB1	1:a:336:ALA:HB1	1.91	0.51
1:c:484:LEU:HB3	1:c:488:ARG:HH21	1.75	0.51
1:f:12:LEU:HA	1:f:15:GLN:OE1	2.10	0.51
1:D:484:LEU:HB3	1:D:488:ARG:HE	1.75	0.51
1:I:201:LEU:HD23	1:I:229:ILE:HG13	1.92	0.51
1:O:86:THR:HG21	1:O:416:ARG:HH11	1.74	0.51
1:Q:62:ASN:O	1:Q:65:THR:OG1	2.19	0.51
1:T:16:ARG:HH22	1:U:438:GLU:CB	2.23	0.51
1:X:172:TYR:HE1	1:X:404:VAL:HG22	1.76	0.51
1:Y:237:ARG:HH12	1:Y:399:GLN:HE22	1.56	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:253:ASN:ND2	1:Y:267:GLY:H	2.08	0.51
1:Z:20:ALA:HA	1:Z:23:ASN:HD22	1.75	0.51
1:c:99:SER:HB2	1:c:392:ILE:HG23	1.92	0.51
1:d:109:ARG:HG3	1:d:393:SER:HB2	1.92	0.51
1:g:73:SER:O	1:g:77:THR:HG23	2.10	0.51
1:B:432:ASN:HD22	1:f:125:ARG:HH22	1.59	0.51
1:P:38:ILE:HG23	1:P:448:LYS:HD2	1.90	0.51
1:Q:324:LYS:HE2	1:Q:336:ALA:HB2	1.92	0.51
1:T:275:ALA:O	1:T:279:ASN:ND2	2.32	0.51
1:U:18:LEU:O	1:U:466:GLN:NE2	2.44	0.51
1:U:455:GLU:OE1	1:U:455:GLU:N	2.42	0.51
1:V:11:SER:O	1:V:14:THR:OG1	2.29	0.51
1:d:118:ALA:O	1:g:425:ARG:NH1	2.44	0.51
1:g:9:ILE:HG22	1:g:11:SER:H	1.76	0.51
1:C:396:ASP:OD1	1:C:397:GLY:N	2.41	0.51
1:D:168:ALA:HB2	1:D:386:SER:H	1.76	0.51
1:E:447:ILE:HG23	1:E:448:LYS:HG2	1.92	0.51
1:J:347:THR:HG22	1:J:348:THR:H	1.76	0.51
1:K:121:ALA:HB3	1:N:425:ARG:HH12	1.75	0.51
1:R:159:ILE:HG12	1:R:422:VAL:HG21	1.91	0.51
1:R:288:THR:HB	1:R:300:THR:HB	1.92	0.51
1:V:40:SER:HB2	1:W:83:GLN:HE21	1.76	0.51
1:W:6:ASN:HD22	1:W:484:LEU:HD11	1.75	0.51
1:X:184:SER:OG	1:X:185:VAL:N	2.43	0.51
1:b:144:THR:HG23	1:b:160:SER:HA	1.93	0.51
1:c:168:ALA:HB2	1:c:386:SER:H	1.76	0.51
1:c:172:TYR:CE1	1:c:404:VAL:HG22	2.45	0.51
1:f:383:GLN:HG2	1:f:384:LYS:HG3	1.91	0.51
1:B:480:PRO:HA	1:B:483:VAL:HG12	1.92	0.51
1:C:173:GLN:HB2	1:C:359:SER:HB2	1.93	0.51
1:G:19:ASN:O	1:G:23:ASN:ND2	2.44	0.51
1:G:322:ALA:HA	1:G:338:ASN:HA	1.93	0.51
1:H:142:PHE:N	1:I:293:ASP:OD2	2.38	0.51
1:J:22:SER:O	1:J:26:ASN:ND2	2.44	0.51
1:L:357:LEU:HD23	1:L:363:TYR:HE2	1.76	0.51
1:M:253:ASN:ND2	1:M:267:GLY:H	2.09	0.51
1:N:62:ASN:O	1:N:66:ARG:HG3	2.11	0.51
1:Q:30:GLN:O	1:Q:34:THR:HG22	2.11	0.51
1:T:167:SER:C	1:T:169:ILE:H	2.19	0.51
1:U:87:ASN:O	1:U:90:GLN:HG2	2.11	0.51
1:W:460:SER:O	1:W:463:GLN:HG2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:216:ASP:OD2	1:c:224:LYS:NZ	2.44	0.51
1:d:22:SER:HA	1:d:25:LEU:HD12	1.93	0.51
1:e:52:ASN:O	1:e:56:ASN:ND2	2.44	0.51
1:A:33:THR:HG21	1:D:14:THR:HG22	1.93	0.51
1:G:118:ALA:O	1:J:425:ARG:NH1	2.44	0.51
1:G:357:LEU:HD23	1:G:376:PHE:CZ	2.46	0.51
1:M:9:ILE:HG22	1:M:11:SER:H	1.76	0.51
1:O:169:ILE:H	1:O:169:ILE:HD12	1.75	0.51
1:T:269:THR:OG1	1:T:273:ASP:OD2	2.28	0.51
1:U:439:ASN:HA	1:U:442:ASN:HD22	1.76	0.51
1:V:168:ALA:C	1:V:170:GLY:H	2.18	0.51
1:X:167:SER:C	1:X:169:ILE:H	2.19	0.51
1:X:190:THR:C	1:X:348:THR:HA	2.36	0.51
1:c:18:LEU:HD21	1:c:469:GLY:HA3	1.93	0.51
1:d:21:SER:O	1:d:25:LEU:HG	2.10	0.51
1:e:452:PHE:HA	1:e:455:GLU:HB3	1.93	0.51
1:A:424:ASN:HA	1:A:427:LYS:HD3	1.93	0.50
1:D:232:LEU:HD12	1:D:357:LEU:HD12	1.92	0.50
1:L:480:PRO:HA	1:L:483:VAL:HG22	1.93	0.50
1:M:400:ASN:OD1	1:M:401:ALA:N	2.44	0.50
1:N:57:GLN:O	1:N:61:LEU:HG	2.11	0.50
1:P:122:GLU:O	1:P:126:ILE:HG13	2.11	0.50
1:Q:253:ASN:HB2	1:Q:314:GLY:HA2	1.93	0.50
1:U:263:VAL:HG22	1:U:285:LEU:HD21	1.92	0.50
1:W:72:ILE:O	1:W:423:GLN:NE2	2.43	0.50
1:W:170:GLY:HA2	1:W:408:ALA:HB2	1.93	0.50
1:X:82:LEU:HD12	1:X:412:ILE:HG23	1.92	0.50
1:X:322:ALA:HB1	1:X:336:ALA:HB1	1.93	0.50
1:Y:42:LYS:HB2	1:Z:420:ALA:HA	1.92	0.50
1:a:357:LEU:HD23	1:a:376:PHE:HZ	1.76	0.50
1:b:20:ALA:HA	1:b:23:ASN:HD22	1.76	0.50
1:c:452:PHE:HA	1:c:455:GLU:HB2	1.91	0.50
1:B:61:LEU:HD22	1:B:437:SER:HB3	1.93	0.50
1:D:40:SER:O	1:E:416:ARG:NH2	2.44	0.50
1:K:431:ASP:O	1:K:435:ASN:ND2	2.32	0.50
1:P:312:GLN:HG3	1:P:342:ALA:HA	1.93	0.50
1:Q:113:GLN:HA	1:Q:116:VAL:HG22	1.91	0.50
1:R:431:ASP:O	1:R:435:ASN:ND2	2.36	0.50
1:X:235:ARG:NH2	1:X:354:TYR:OH	2.44	0.50
1:Z:235:ARG:HH12	1:Z:237:ARG:HD2	1.75	0.50
1:e:174:VAL:HG21	1:e:179:ALA:HB2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:175:GLY:HA3	1:e:356:GLN:HG2	1.92	0.50
1:C:396:ASP:O	1:C:400:ASN:N	2.44	0.50
1:D:57:GLN:O	1:D:61:LEU:HD23	2.12	0.50
1:F:58:ILE:O	1:F:62:ASN:ND2	2.44	0.50
1:I:91:ARG:NH1	1:I:94:ASP:OD2	2.44	0.50
1:J:388:ALA:HB1	1:N:284:LYS:HA	1.92	0.50
1:M:247:VAL:HG11	1:M:269:THR:HA	1.92	0.50
1:N:72:ILE:HG22	1:P:446:ARG:HH12	1.76	0.50
1:N:102:GLY:O	1:N:103:SER:OG	2.26	0.50
1:S:89:LEU:HD11	1:S:409:LEU:HD13	1.93	0.50
1:V:55:SER:HA	1:V:58:ILE:HG22	1.92	0.50
1:V:396:ASP:HB2	1:V:400:ASN:HD22	1.76	0.50
1:a:181:THR:HG23	1:a:378:ASN:HD21	1.76	0.50
1:a:452:PHE:HA	1:a:455:GLU:HB2	1.93	0.50
1:c:253:ASN:HB2	1:c:314:GLY:HA2	1.93	0.50
1:D:474:ALA:O	1:D:478:GLN:NE2	2.44	0.50
1:G:125:ARG:HD3	1:J:157:ILE:HD11	1.92	0.50
1:H:7:THR:HA	1:L:461:LYS:HE3	1.94	0.50
1:L:34:THR:HA	1:O:17:ASN:HD21	1.76	0.50
1:L:464:VAL:HA	1:L:467:GLN:HG2	1.92	0.50
1:M:99:SER:HB2	1:M:392:ILE:HG23	1.93	0.50
1:P:40:SER:O	1:Q:416:ARG:NH2	2.45	0.50
1:W:297:LEU:HD12	1:W:299:ILE:HD11	1.93	0.50
1:X:357:LEU:HD23	1:X:376:PHE:HZ	1.75	0.50
1:Y:429:THR:HA	1:Y:432:ASN:ND2	2.26	0.50
1:b:115:GLU:OE2	1:e:424:ASN:ND2	2.44	0.50
1:d:33:THR:O	1:g:17:ASN:ND2	2.44	0.50
1:g:466:GLN:O	1:g:470:THR:HG23	2.11	0.50
1:B:101:ASN:O	1:B:105:SER:OG	2.27	0.50
1:D:225:MET:HE3	1:D:234:ALA:HB1	1.94	0.50
1:G:248:THR:HG1	1:G:317:THR:HG1	1.57	0.50
1:J:168:ALA:HB2	1:J:386:SER:H	1.76	0.50
1:K:8:ASN:HD21	1:L:445:SER:HB2	1.75	0.50
1:P:96:ALA:O	1:P:99:SER:OG	2.28	0.50
1:P:273:ASP:O	1:P:277:GLN:HG2	2.11	0.50
1:S:161:LEU:HD12	1:S:162:GLN:H	1.75	0.50
1:S:452:PHE:O	1:S:456:THR:HG23	2.12	0.50
1:W:15:GLN:HE21	1:a:454:ALA:HA	1.77	0.50
1:W:73:SER:O	1:W:77:THR:HG23	2.12	0.50
1:X:116:VAL:HG21	1:X:392:ILE:HG13	1.94	0.50
1:b:118:ALA:O	1:e:425:ARG:NH1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:144:THR:HB	1:c:290:SER:HB3	1.94	0.50
1:c:167:SER:C	1:c:169:ILE:H	2.19	0.50
1:e:204:GLY:HA2	1:f:280:SER:HB2	1.92	0.50
1:A:44:ASP:O	1:A:48:LEU:N	2.43	0.50
1:B:418:ASP:O	1:B:422:VAL:HG23	2.12	0.50
1:G:30:GLN:O	1:G:34:THR:HG22	2.12	0.50
1:I:83:GLN:O	1:I:86:THR:OG1	2.28	0.50
1:I:213:ALA:N	1:I:216:ASP:OD2	2.45	0.50
1:K:170:GLY:HA2	1:K:408:ALA:HB2	1.93	0.50
1:K:242:ALA:HB3	1:K:297:LEU:HD12	1.93	0.50
1:M:167:SER:C	1:M:169:ILE:H	2.19	0.50
1:W:77:THR:HA	1:Z:439:ASN:HD22	1.77	0.50
1:Y:73:SER:O	1:Y:77:THR:HG23	2.11	0.50
1:d:109:ARG:HB2	1:d:393:SER:HA	1.94	0.50
1:g:150:GLY:HA3	1:g:155:GLU:HG3	1.94	0.50
1:E:173:GLN:HG2	1:E:358:ASN:HA	1.93	0.50
1:F:113:GLN:HA	1:F:116:VAL:HG22	1.94	0.50
1:L:74:LEU:HD21	1:L:137:LEU:HD11	1.93	0.50
1:L:239:VAL:HG22	1:L:300:THR:HG23	1.93	0.50
1:R:185:VAL:HG22	1:R:190:THR:HG21	1.92	0.50
1:Y:172:TYR:CE1	1:Y:404:VAL:HG22	2.46	0.50
1:a:360:PRO:HA	1:a:407:ASN:HB3	1.93	0.50
1:b:261:ASN:ND2	1:b:284:LYS:O	2.44	0.50
1:c:447:ILE:HG23	1:c:448:LYS:HG2	1.92	0.50
1:d:200:ASN:N	1:d:366:SER:O	2.45	0.50
1:A:467:GLN:HG3	1:f:488:ARG:HH22	1.77	0.50
1:E:110:ALA:HB2	1:H:230:PRO:HB3	1.94	0.50
1:M:135:ARG:HH21	1:N:104:ASN:HB3	1.77	0.50
1:M:253:ASN:HD22	1:M:266:ALA:HB1	1.75	0.50
1:O:185:VAL:HG13	1:O:190:THR:HG21	1.92	0.50
1:P:292:ASN:HD21	1:P:294:LYS:HB2	1.77	0.50
1:T:253:ASN:HB2	1:T:314:GLY:HA2	1.93	0.50
1:U:38:ILE:HG23	1:U:448:LYS:HD2	1.92	0.50
1:V:66:ARG:NH2	1:Y:446:ARG:O	2.44	0.50
1:Z:38:ILE:HG23	1:Z:44:ASP:HB3	1.93	0.50
1:b:198:THR:HA	1:b:211:ALA:HA	1.94	0.50
1:B:29:LEU:HG	1:F:472:ILE:HD11	1.94	0.50
1:H:59:SER:OG	1:I:90:GLN:NE2	2.45	0.50
1:I:167:SER:C	1:I:169:ILE:H	2.20	0.50
1:J:99:SER:HB2	1:J:392:ILE:HG23	1.94	0.50
1:J:261:ASN:HB2	1:J:284:LYS:HE2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:396:ASP:HB2	1:J:400:ASN:HD22	1.77	0.50
1:L:221:ILE:HG22	1:L:225:MET:HE3	1.94	0.50
1:L:247:VAL:HG11	1:L:269:THR:HA	1.94	0.50
1:M:37:ARG:HG3	1:M:38:ILE:H	1.77	0.50
1:O:208:LYS:HD3	1:O:228:ALA:HB1	1.92	0.50
1:Q:386:SER:O	1:Q:389:SER:OG	2.27	0.50
1:R:208:LYS:HE3	1:R:228:ALA:HB1	1.94	0.50
1:R:239:VAL:HG22	1:R:300:THR:HG23	1.94	0.50
1:S:288:THR:HB	1:S:300:THR:HB	1.93	0.50
1:T:16:ARG:HH21	1:U:434:THR:C	2.20	0.50
1:V:269:THR:OG1	1:V:273:ASP:OD2	2.24	0.50
1:X:38:ILE:HD12	1:X:44:ASP:HB3	1.94	0.50
1:Y:57:GLN:O	1:Y:61:LEU:HG	2.12	0.50
1:Y:168:ALA:HA	1:Y:385:SER:HB2	1.94	0.50
1:c:322:ALA:HB1	1:c:336:ALA:HB1	1.94	0.50
1:f:265:LEU:HB2	1:f:277:GLN:HG2	1.94	0.50
1:A:16:ARG:HH21	1:C:435:ASN:HA	1.77	0.49
1:F:37:ARG:HG3	1:F:38:ILE:H	1.75	0.49
1:F:89:LEU:HD12	1:F:412:ILE:HD13	1.94	0.49
1:K:138:LEU:HD23	1:K:138:LEU:H	1.76	0.49
1:O:104:ASN:HA	1:O:109:ARG:HH22	1.77	0.49
1:S:273:ASP:O	1:S:277:GLN:HG2	2.11	0.49
1:b:16:ARG:HH21	1:c:435:ASN:HA	1.77	0.49
1:c:102:GLY:O	1:c:103:SER:OG	2.28	0.49
1:f:78:ALA:HB2	1:f:137:LEU:HD11	1.93	0.49
1:g:173:GLN:HG3	1:g:359:SER:H	1.77	0.49
1:g:173:GLN:HE21	1:g:359:SER:HB3	1.76	0.49
1:C:172:TYR:CE2	1:C:404:VAL:HG22	2.48	0.49
1:G:253:ASN:HB2	1:G:314:GLY:HA2	1.94	0.49
1:J:25:LEU:HD11	1:J:466:GLN:HG3	1.93	0.49
1:K:129:THR:OG1	1:N:155:GLU:OE1	2.28	0.49
1:K:233:SER:O	1:K:357:LEU:HB2	2.11	0.49
1:N:292:ASN:HD21	1:N:294:LYS:HB2	1.77	0.49
1:N:484:LEU:O	1:N:488:ARG:NE	2.45	0.49
1:O:427:LYS:HA	1:O:430:ILE:HG22	1.93	0.49
1:Q:154:TYR:H	1:R:399:GLN:HG2	1.76	0.49
1:T:12:LEU:HB2	1:U:438:GLU:OE2	2.11	0.49
1:T:73:SER:O	1:T:77:THR:HG23	2.12	0.49
1:T:484:LEU:HB3	1:T:488:ARG:HH21	1.77	0.49
1:X:9:ILE:HG13	1:X:11:SER:H	1.77	0.49
1:Y:108:ASP:O	1:Y:112:LEU:HG	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:322:ALA:HA	1:Y:338:ASN:HA	1.94	0.49
1:a:11:SER:O	1:a:14:THR:OG1	2.24	0.49
1:a:201:LEU:HD23	1:a:229:ILE:HG13	1.94	0.49
1:c:331:LYS:HD2	1:c:331:LYS:O	2.12	0.49
1:e:278:LEU:HG	1:e:289:ALA:HB2	1.94	0.49
1:f:162:GLN:NE2	1:f:163:ASN:OD1	2.46	0.49
1:C:480:PRO:O	1:C:484:LEU:HG	2.12	0.49
1:D:76:GLN:HG3	1:G:439:ASN:ND2	2.27	0.49
1:G:125:ARG:HH22	1:J:432:ASN:HD22	1.60	0.49
1:G:225:MET:HE1	1:G:355:VAL:HG21	1.93	0.49
1:H:122:GLU:HB2	1:K:425:ARG:HG3	1.95	0.49
1:H:427:LYS:HA	1:H:430:ILE:HG22	1.94	0.49
1:J:168:ALA:C	1:J:170:GLY:H	2.19	0.49
1:M:91:ARG:O	1:M:95:LEU:HG	2.12	0.49
1:M:120:GLN:O	1:M:124:THR:HG23	2.12	0.49
1:O:392:ILE:HA	1:O:397:GLY:HA3	1.94	0.49
1:T:396:ASP:OD2	1:T:396:ASP:N	2.46	0.49
1:V:16:ARG:HH21	1:W:435:ASN:HA	1.76	0.49
1:b:9:ILE:HG12	1:b:11:SER:H	1.77	0.49
1:b:65:THR:O	1:b:69:ASN:ND2	2.45	0.49
1:C:104:ASN:HA	1:C:109:ARG:HH22	1.76	0.49
1:D:280:SER:HB2	1:F:204:GLY:HA2	1.93	0.49
1:E:121:ALA:HA	1:E:124:THR:HG22	1.95	0.49
1:K:89:LEU:HD22	1:K:405:VAL:HG23	1.93	0.49
1:N:273:ASP:O	1:N:277:GLN:HG2	2.11	0.49
1:T:74:LEU:HD11	1:T:135:ARG:HH12	1.77	0.49
1:T:322:ALA:HB1	1:T:336:ALA:HB1	1.94	0.49
1:W:93:ARG:NH2	1:W:409:LEU:HD21	2.26	0.49
1:Y:38:ILE:O	1:Y:38:ILE:HG13	2.13	0.49
1:Z:78:ALA:HB2	1:Z:137:LEU:HD11	1.94	0.49
1:a:402:ILE:HA	1:a:405:VAL:HG22	1.95	0.49
1:c:6:ASN:HB3	1:c:484:LEU:HD21	1.93	0.49
1:c:87:ASN:O	1:c:90:GLN:HG2	2.13	0.49
1:A:142:PHE:N	1:C:293:ASP:OD2	2.46	0.49
1:B:126:ILE:HG12	1:F:432:ASN:HD22	1.77	0.49
1:C:132:PHE:HB3	1:C:137:LEU:HD11	1.93	0.49
1:G:141:SER:OG	1:H:293:ASP:OD1	2.30	0.49
1:I:392:ILE:HA	1:I:397:GLY:HA3	1.94	0.49
1:K:23:ASN:HA	1:K:26:ASN:ND2	2.28	0.49
1:L:74:LEU:O	1:L:77:THR:OG1	2.29	0.49
1:M:258:VAL:HG12	1:M:307:VAL:HG23	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:95:LEU:HD13	1:N:115:GLU:HG3	1.93	0.49
1:O:322:ALA:HB1	1:O:336:ALA:HB1	1.94	0.49
1:P:52:ASN:O	1:P:56:ASN:ND2	2.45	0.49
1:U:15:GLN:HE21	1:X:454:ALA:HA	1.77	0.49
1:W:21:SER:OG	1:W:466:GLN:NE2	2.42	0.49
1:X:162:GLN:HB2	1:X:415:GLN:HG2	1.95	0.49
1:Z:201:LEU:HD23	1:Z:229:ILE:HG13	1.94	0.49
1:b:292:ASN:HD21	1:b:294:LYS:HB2	1.76	0.49
1:c:13:ASN:N	1:d:438:GLU:OE2	2.45	0.49
1:c:172:TYR:CD1	1:c:404:VAL:HA	2.47	0.49
1:A:172:TYR:CE1	1:A:404:VAL:HG22	2.47	0.49
1:A:173:GLN:HB3	1:A:382:ALA:HB1	1.94	0.49
1:A:253:ASN:HD22	1:A:266:ALA:HB1	1.78	0.49
1:B:210:ILE:HD12	1:B:212:ILE:HD11	1.93	0.49
1:D:102:GLY:O	1:D:103:SER:OG	2.27	0.49
1:D:184:SER:HB3	1:D:374:GLN:HA	1.95	0.49
1:F:239:VAL:HG22	1:F:300:THR:HG23	1.94	0.49
1:I:25:LEU:HD11	1:I:463:GLN:HA	1.94	0.49
1:J:18:LEU:O	1:J:466:GLN:NE2	2.45	0.49
1:O:33:THR:HG23	1:Q:17:ASN:HD22	1.76	0.49
1:P:34:THR:HG23	1:P:36:TYR:H	1.78	0.49
1:Q:247:VAL:HG11	1:Q:269:THR:HA	1.94	0.49
1:T:87:ASN:O	1:T:90:GLN:HG2	2.13	0.49
1:Y:167:SER:C	1:Y:169:ILE:H	2.21	0.49
1:c:15:GLN:HE21	1:g:454:ALA:HA	1.76	0.49
1:c:269:THR:OG1	1:c:273:ASP:OD2	2.26	0.49
1:e:261:ASN:HB2	1:e:284:LYS:HE3	1.93	0.49
1:f:39:ASN:OD1	1:f:40:SER:N	2.46	0.49
1:A:432:ASN:HD22	1:g:125:ARG:HH22	1.60	0.49
1:B:358:ASN:HD22	1:B:407:ASN:HD21	1.61	0.49
1:E:113:GLN:HA	1:E:116:VAL:HG22	1.95	0.49
1:E:133:GLY:HA2	1:H:53:ARG:HD2	1.95	0.49
1:M:34:THR:HG23	1:M:36:TYR:H	1.78	0.49
1:P:111:ALA:HA	1:P:114:LYS:HG2	1.94	0.49
1:P:174:VAL:HG23	1:P:383:GLN:HB2	1.95	0.49
1:T:57:GLN:O	1:T:61:LEU:HG	2.12	0.49
1:T:229:ILE:HB	1:T:232:LEU:HD22	1.94	0.49
1:W:58:ILE:HG13	1:W:62:ASN:HD21	1.78	0.49
1:Y:201:LEU:HD23	1:Y:229:ILE:HG13	1.95	0.49
1:Y:261:ASN:HB2	1:Y:284:LYS:HE2	1.94	0.49
1:b:173:GLN:HA	1:b:363:TYR:HE1	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:d:74:LEU:O	1:d:77:THR:OG1	2.27	0.49
1:e:174:VAL:HG23	1:e:383:GLN:HB2	1.94	0.49
1:f:190:THR:C	1:f:348:THR:HA	2.38	0.49
1:A:132:PHE:HE1	1:D:54:LEU:HD21	1.78	0.49
1:A:389:SER:HA	1:E:284:LYS:HG3	1.94	0.49
1:B:221:ILE:HA	1:B:224:LYS:HE3	1.94	0.49
1:E:292:ASN:HD21	1:E:294:LYS:HB2	1.77	0.49
1:G:163:ASN:OD1	1:G:164:ALA:N	2.45	0.49
1:G:423:GLN:O	1:G:427:LYS:HD2	2.12	0.49
1:K:82:LEU:HD22	1:K:412:ILE:HG23	1.94	0.49
1:M:400:ASN:O	1:M:404:VAL:HG23	2.13	0.49
1:N:131:THR:HG22	1:N:136:LYS:HB3	1.95	0.49
1:O:20:ALA:HA	1:O:23:ASN:HD22	1.78	0.49
1:O:253:ASN:ND2	1:O:267:GLY:H	2.10	0.49
1:Q:427:LYS:HA	1:Q:430:ILE:HG22	1.95	0.49
1:R:125:ARG:HH22	1:U:432:ASN:HD22	1.59	0.49
1:R:401:ALA:HA	1:R:404:VAL:HG12	1.95	0.49
1:W:59:SER:HB2	1:X:94:ASP:OD1	2.12	0.49
1:C:113:GLN:HA	1:C:116:VAL:HG12	1.95	0.49
1:F:86:THR:HG21	1:F:416:ARG:HH11	1.78	0.49
1:G:109:ARG:HB2	1:G:393:SER:HA	1.95	0.49
1:H:231:ASN:O	1:H:360:PRO:HD2	2.13	0.49
1:H:274:LEU:HA	1:H:277:GLN:HE21	1.78	0.49
1:L:219:LYS:O	1:L:223:GLU:HG2	2.11	0.49
1:M:435:ASN:O	1:M:438:GLU:HG2	2.13	0.49
1:R:110:ALA:O	1:R:114:LYS:HG3	2.13	0.49
1:T:154:TYR:H	1:U:399:GLN:HG2	1.78	0.49
1:U:89:LEU:HA	1:U:92:ILE:HD12	1.94	0.49
1:e:23:ASN:HA	1:e:26:ASN:HD22	1.78	0.49
1:g:200:ASN:N	1:g:366:SER:O	2.45	0.49
1:A:99:SER:HB2	1:A:392:ILE:HG23	1.93	0.49
1:B:431:ASP:O	1:B:435:ASN:ND2	2.33	0.49
1:H:125:ARG:CZ	1:K:429:THR:HG23	2.43	0.49
1:J:61:LEU:HB3	1:J:433:LEU:HD11	1.94	0.49
1:J:76:GLN:HG3	1:M:439:ASN:ND2	2.28	0.49
1:J:431:ASP:O	1:J:435:ASN:ND2	2.37	0.49
1:K:57:GLN:O	1:K:61:LEU:HD13	2.12	0.49
1:L:74:LEU:HD13	1:L:147:PHE:HZ	1.77	0.49
1:N:72:ILE:HG12	1:N:423:GLN:HE22	1.78	0.49
1:O:181:THR:HG23	1:O:378:ASN:HD21	1.78	0.49
1:Q:42:LYS:HB2	1:R:420:ALA:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:23:ASN:HA	1:W:26:ASN:ND2	2.28	0.49
1:X:122:GLU:O	1:X:126:ILE:HG13	2.12	0.49
1:Y:158:ASP:OD2	1:Y:158:ASP:N	2.46	0.49
1:a:190:THR:C	1:a:348:THR:HA	2.38	0.49
1:b:401:ALA:O	1:b:405:VAL:HG13	2.13	0.49
1:e:219:LYS:HZ1	1:e:305:GLU:HA	1.78	0.49
1:A:77:THR:HA	1:D:439:ASN:HD22	1.77	0.48
1:E:185:VAL:HG22	1:E:190:THR:HG21	1.93	0.48
1:E:239:VAL:HG22	1:E:300:THR:HG23	1.95	0.48
1:P:208:LYS:HE3	1:P:228:ALA:HB1	1.94	0.48
1:Q:159:ILE:HG12	1:Q:422:VAL:HG21	1.95	0.48
1:Q:259:GLY:N	1:Q:305:GLU:OE1	2.46	0.48
1:R:117:ALA:O	1:R:120:GLN:HG2	2.13	0.48
1:X:331:LYS:HD2	1:X:331:LYS:O	2.12	0.48
1:Z:273:ASP:O	1:Z:277:GLN:HG2	2.13	0.48
1:b:480:PRO:HA	1:b:483:VAL:HG12	1.93	0.48
1:c:161:LEU:HD21	1:c:419:LEU:HD21	1.95	0.48
1:e:154:TYR:HA	1:f:399:GLN:HE21	1.77	0.48
1:B:185:VAL:HG13	1:B:190:THR:HG21	1.94	0.48
1:E:233:SER:O	1:E:357:LEU:HB2	2.13	0.48
1:G:99:SER:HB2	1:G:392:ILE:HG23	1.95	0.48
1:O:402:ILE:HA	1:O:405:VAL:HG22	1.94	0.48
1:V:99:SER:HB2	1:V:392:ILE:HG23	1.95	0.48
1:V:337:LYS:HE3	1:V:348:THR:HG21	1.95	0.48
1:a:290:SER:HB2	1:a:298:THR:HG23	1.95	0.48
1:f:95:LEU:HD11	1:f:112:LEU:HD22	1.95	0.48
1:D:320:GLN:HB2	1:D:338:ASN:HD22	1.78	0.48
1:F:131:THR:HG22	1:F:136:LYS:HB3	1.94	0.48
1:H:109:ARG:HB2	1:H:393:SER:HA	1.95	0.48
1:I:452:PHE:O	1:I:456:THR:HG23	2.13	0.48
1:I:487:LEU:HD12	1:I:488:ARG:HG3	1.95	0.48
1:J:61:LEU:HD13	1:J:436:ILE:HG23	1.94	0.48
1:J:383:GLN:OE1	1:J:384:LYS:HG3	2.14	0.48
1:J:484:LEU:HB3	1:J:488:ARG:HE	1.78	0.48
1:L:269:THR:OG1	1:L:273:ASP:OD2	2.30	0.48
1:M:190:THR:C	1:M:348:THR:HA	2.38	0.48
1:M:357:LEU:HD23	1:M:376:PHE:CZ	2.48	0.48
1:Q:87:ASN:O	1:Q:90:GLN:HG2	2.13	0.48
1:Q:190:THR:C	1:Q:348:THR:HA	2.37	0.48
1:a:188:THR:HA	1:a:325:VAL:HG11	1.95	0.48
1:b:120:GLN:HE22	1:b:388:ALA:HA	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:273:ASP:O	1:e:277:GLN:HG2	2.12	0.48
1:f:235:ARG:NH2	1:f:354:TYR:OH	2.46	0.48
1:g:456:THR:O	1:g:459:LEU:HG	2.13	0.48
1:A:329:ASP:OD1	1:A:330:GLY:N	2.44	0.48
1:C:167:SER:O	1:C:169:ILE:N	2.47	0.48
1:D:402:ILE:HA	1:D:405:VAL:HG22	1.95	0.48
1:G:101:ASN:O	1:G:105:SER:OG	2.27	0.48
1:J:237:ARG:HH12	1:J:399:GLN:HE22	1.62	0.48
1:K:376:PHE:HB3	1:K:379:ALA:HB3	1.95	0.48
1:P:138:LEU:HD12	1:P:165:SER:HB2	1.96	0.48
1:R:233:SER:O	1:R:357:LEU:HB2	2.13	0.48
1:V:253:ASN:ND2	1:V:267:GLY:H	2.11	0.48
1:W:109:ARG:HG3	1:W:393:SER:HB2	1.94	0.48
1:X:245:SER:HG	1:X:320:GLN:H	1.59	0.48
1:Y:23:ASN:HA	1:Y:26:ASN:ND2	2.29	0.48
1:Z:139:ASP:HA	1:Z:164:ALA:HA	1.94	0.48
1:Z:201:LEU:HD11	1:Z:225:MET:HE3	1.94	0.48
1:b:253:ASN:OD1	1:b:267:GLY:N	2.36	0.48
1:c:14:THR:O	1:c:18:LEU:HG	2.13	0.48
1:c:86:THR:HG21	1:c:416:ARG:HH11	1.77	0.48
1:c:116:VAL:HG21	1:c:392:ILE:HG13	1.95	0.48
1:c:202:VAL:HB	1:c:364:SER:HB3	1.95	0.48
1:e:131:THR:HG22	1:e:136:LYS:HE2	1.94	0.48
1:f:220:ALA:O	1:f:224:LYS:HG3	2.13	0.48
1:C:235:ARG:HH12	1:C:237:ARG:HB2	1.78	0.48
1:D:94:ASP:OD2	1:F:59:SER:HB2	2.14	0.48
1:D:452:PHE:O	1:D:456:THR:HG23	2.14	0.48
1:E:83:GLN:O	1:E:86:THR:OG1	2.29	0.48
1:G:199:VAL:HG11	1:G:375:VAL:HG21	1.96	0.48
1:J:44:ASP:O	1:J:48:LEU:N	2.42	0.48
1:O:19:ASN:O	1:O:23:ASN:ND2	2.46	0.48
1:O:259:GLY:N	1:O:305:GLU:OE1	2.46	0.48
1:R:484:LEU:HB3	1:R:488:ARG:HE	1.79	0.48
1:W:364:SER:HA	1:W:381:ALA:HA	1.95	0.48
1:c:480:PRO:HA	1:c:483:VAL:HG12	1.95	0.48
1:e:452:PHE:O	1:e:456:THR:HG23	2.14	0.48
1:A:65:THR:O	1:A:69:ASN:ND2	2.47	0.48
1:A:480:PRO:HA	1:A:483:VAL:HG12	1.95	0.48
1:B:84:GLN:HA	1:B:87:ASN:HD22	1.78	0.48
1:B:452:PHE:O	1:B:456:THR:HG23	2.14	0.48
1:L:424:ASN:HA	1:L:427:LYS:HD3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:16:ARG:NH2	1:Q:435:ASN:HA	2.29	0.48
1:R:93:ARG:HH21	1:R:406:ASP:HA	1.78	0.48
1:V:247:VAL:HG11	1:V:269:THR:HA	1.96	0.48
1:a:29:LEU:HD12	1:c:472:ILE:HG23	1.95	0.48
1:c:131:THR:HB	1:c:134:GLY:HA2	1.96	0.48
1:d:125:ARG:HD3	1:g:157:ILE:HD11	1.95	0.48
1:d:387:VAL:HB	1:d:404:VAL:HG11	1.96	0.48
1:f:82:LEU:HD22	1:f:419:LEU:HD22	1.95	0.48
1:f:83:GLN:O	1:f:87:ASN:ND2	2.47	0.48
1:G:202:VAL:HB	1:G:364:SER:HB3	1.96	0.48
1:J:22:SER:HA	1:J:25:LEU:HD12	1.96	0.48
1:J:444:ARG:O	1:J:448:LYS:HB2	2.14	0.48
1:K:278:LEU:O	1:K:282:SER:OG	2.28	0.48
1:L:253:ASN:HB2	1:L:314:GLY:HA2	1.96	0.48
1:M:261:ASN:HB2	1:M:284:LYS:HE2	1.95	0.48
1:O:452:PHE:O	1:O:456:THR:HG23	2.14	0.48
1:P:309:PHE:HB3	1:P:340:VAL:HG23	1.94	0.48
1:T:185:VAL:HG13	1:T:190:THR:HG21	1.96	0.48
1:V:202:VAL:HB	1:V:364:SER:HB2	1.96	0.48
1:W:58:ILE:O	1:W:62:ASN:ND2	2.47	0.48
1:W:358:ASN:ND2	1:W:403:ALA:HB1	2.28	0.48
1:e:96:ALA:O	1:e:99:SER:OG	2.22	0.48
1:C:241:THR:OG1	1:C:242:ALA:N	2.47	0.48
1:E:84:GLN:HG3	1:E:126:ILE:HD13	1.95	0.48
1:H:120:GLN:NE2	1:H:387:VAL:O	2.46	0.48
1:H:480:PRO:HA	1:H:483:VAL:HG22	1.95	0.48
1:O:126:ILE:HD11	1:Q:428:ASN:OD1	2.12	0.48
1:R:46:ALA:O	1:R:50:ILE:HG12	2.14	0.48
1:W:263:VAL:HG22	1:W:285:LEU:HD21	1.96	0.48
1:a:132:PHE:HE1	1:c:54:LEU:HD11	1.79	0.48
1:e:430:ILE:O	1:e:434:THR:HG23	2.14	0.48
1:f:9:ILE:HD11	1:f:480:PRO:HG3	1.96	0.48
1:g:138:LEU:HD13	1:g:165:SER:HB3	1.96	0.48
1:g:185:VAL:HG12	1:g:190:THR:HG21	1.94	0.48
1:g:263:VAL:HG22	1:g:285:LEU:HD11	1.96	0.48
1:B:61:LEU:HG	1:B:433:LEU:HD12	1.95	0.48
1:B:220:ALA:O	1:B:224:LYS:HG2	2.13	0.48
1:D:172:TYR:CE1	1:D:404:VAL:HG22	2.48	0.48
1:G:55:SER:HA	1:G:58:ILE:HG22	1.96	0.48
1:G:59:SER:HB2	1:H:94:ASP:OD2	2.13	0.48
1:G:219:LYS:O	1:G:223:GLU:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:220:ALA:O	1:H:223:GLU:HG3	2.14	0.48
1:H:233:SER:O	1:H:357:LEU:HB2	2.14	0.48
1:K:88:ILE:HD11	1:N:428:ASN:OD1	2.14	0.48
1:T:168:ALA:HB2	1:T:386:SER:H	1.78	0.48
1:W:173:GLN:HA	1:W:363:TYR:HE1	1.79	0.48
1:W:450:THR:HG23	1:W:452:PHE:HD1	1.77	0.48
1:Z:42:LYS:HB3	1:a:79:GLU:OE1	2.14	0.48
1:Z:362:ALA:HB1	1:a:277:GLN:HE22	1.78	0.48
1:a:447:ILE:HG23	1:a:448:LYS:HG2	1.95	0.48
1:b:444:ARG:O	1:b:448:LYS:HB2	2.14	0.48
1:d:447:ILE:HG23	1:d:448:LYS:HG2	1.95	0.48
1:e:375:VAL:HG13	1:e:376:PHE:CD2	2.48	0.48
1:B:308:LYS:HG3	1:B:350:ILE:HG22	1.94	0.48
1:B:424:ASN:O	1:B:427:LYS:HG2	2.13	0.48
1:C:173:GLN:N	1:C:359:SER:O	2.29	0.48
1:H:219:LYS:HZ1	1:H:223:GLU:HB3	1.78	0.48
1:I:99:SER:O	1:I:101:ASN:ND2	2.47	0.48
1:J:239:VAL:HG22	1:J:300:THR:HG23	1.95	0.48
1:P:89:LEU:HD23	1:P:409:LEU:HD13	1.96	0.48
1:V:111:ALA:HA	1:V:114:LYS:HD3	1.96	0.48
1:V:164:ALA:HB3	1:V:169:ILE:HD11	1.95	0.48
1:V:322:ALA:HB1	1:V:336:ALA:HB1	1.95	0.48
1:X:402:ILE:HA	1:X:405:VAL:HG22	1.96	0.48
1:Z:69:ASN:HA	1:Z:72:ILE:HD12	1.96	0.48
1:a:263:VAL:HG13	1:a:281:ASN:HD22	1.79	0.48
1:b:175:GLY:HA3	1:b:356:GLN:HG2	1.96	0.48
1:d:138:LEU:HD23	1:d:138:LEU:H	1.79	0.48
1:B:13:ASN:ND2	1:f:30:GLN:HG2	2.27	0.47
1:F:257:THR:HB	1:F:308:LYS:HB2	1.94	0.47
1:L:122:GLU:HB2	1:O:425:ARG:HG3	1.96	0.47
1:N:38:ILE:HG13	1:N:38:ILE:O	2.14	0.47
1:N:116:VAL:HG11	1:N:390:VAL:HG21	1.96	0.47
1:P:174:VAL:HG21	1:P:179:ALA:HB2	1.95	0.47
1:Q:59:SER:HB2	1:R:94:ASP:OD2	2.14	0.47
1:W:484:LEU:HB3	1:W:488:ARG:HE	1.79	0.47
1:X:112:LEU:HD21	1:Z:46:ALA:HB2	1.96	0.47
1:Y:288:THR:HG1	1:Y:300:THR:HG1	1.61	0.47
1:Z:23:ASN:HA	1:Z:26:ASN:ND2	2.29	0.47
1:Z:42:LYS:HB2	1:a:420:ALA:HB2	1.94	0.47
1:a:185:VAL:HG13	1:a:190:THR:HG21	1.95	0.47
1:a:386:SER:HB2	1:a:389:SER:OG	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:233:SER:O	1:b:357:LEU:HB2	2.14	0.47
1:e:258:VAL:HG11	1:e:287:ILE:HD11	1.95	0.47
1:g:96:ALA:O	1:g:99:SER:OG	2.24	0.47
1:A:136:LYS:HE2	1:A:140:GLY:HA3	1.96	0.47
1:A:189:ALA:HB3	1:A:337:LYS:HD2	1.96	0.47
1:A:253:ASN:ND2	1:A:267:GLY:H	2.12	0.47
1:B:257:THR:N	1:B:308:LYS:O	2.47	0.47
1:B:373:SER:HA	1:B:377:GLY:HA2	1.96	0.47
1:C:190:THR:C	1:C:348:THR:HA	2.39	0.47
1:D:396:ASP:HB2	1:D:400:ASN:HD22	1.78	0.47
1:Q:56:ASN:OD1	1:R:93:ARG:NH1	2.47	0.47
1:U:32:LEU:HD22	1:U:459:LEU:HD21	1.96	0.47
1:U:174:VAL:HG22	1:U:383:GLN:HG3	1.96	0.47
1:W:42:LYS:HD3	1:X:423:GLN:HB2	1.96	0.47
1:X:357:LEU:HD23	1:X:376:PHE:CZ	2.49	0.47
1:Z:137:LEU:HD23	1:Z:138:LEU:HB3	1.95	0.47
1:b:273:ASP:O	1:b:277:GLN:HG2	2.12	0.47
1:c:97:LEU:HG	1:c:402:ILE:HD11	1.96	0.47
1:c:425:ARG:HA	1:c:428:ASN:HD21	1.80	0.47
1:f:30:GLN:O	1:f:34:THR:HG22	2.15	0.47
1:f:229:ILE:HD12	1:f:230:PRO:HD2	1.96	0.47
1:f:253:ASN:ND2	1:f:267:GLY:H	2.12	0.47
1:B:38:ILE:O	1:B:38:ILE:HG13	2.13	0.47
1:B:190:THR:C	1:B:348:THR:HA	2.39	0.47
1:F:292:ASN:HD21	1:F:294:LYS:HB2	1.79	0.47
1:G:373:SER:HA	1:G:377:GLY:HA2	1.96	0.47
1:J:66:ARG:NH2	1:M:446:ARG:O	2.46	0.47
1:M:423:GLN:O	1:M:427:LYS:HG2	2.14	0.47
1:O:21:SER:OG	1:O:466:GLN:NE2	2.39	0.47
1:P:59:SER:HB2	1:Q:94:ASP:OD2	2.14	0.47
1:Q:357:LEU:HD23	1:Q:376:PHE:HZ	1.80	0.47
1:T:74:LEU:HD11	1:T:135:ARG:NH1	2.28	0.47
1:T:83:GLN:O	1:T:86:THR:OG1	2.25	0.47
1:T:261:ASN:HB2	1:T:284:LYS:HE2	1.96	0.47
1:U:252:LEU:HA	1:U:312:GLN:HE22	1.79	0.47
1:X:95:LEU:O	1:X:99:SER:HB3	2.13	0.47
1:c:16:ARG:NH2	1:d:435:ASN:HA	2.27	0.47
1:e:421:ALA:HA	1:e:424:ASN:HD21	1.79	0.47
1:f:42:LYS:HD3	1:g:423:GLN:HB2	1.96	0.47
1:g:458:ALA:O	1:g:461:LYS:HG3	2.14	0.47
1:A:237:ARG:HH22	1:B:154:TYR:HB3	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:83:GLN:O	1:G:86:THR:OG1	2.25	0.47
1:G:271:THR:HB	1:G:297:LEU:HG	1.97	0.47
1:J:16:ARG:HH22	1:K:438:GLU:CB	2.27	0.47
1:J:33:THR:HG23	1:M:17:ASN:HD22	1.80	0.47
1:Q:20:ALA:HA	1:Q:23:ASN:HD22	1.78	0.47
1:S:309:PHE:HB3	1:S:340:VAL:HG23	1.96	0.47
1:T:39:ASN:OD1	1:T:40:SER:N	2.47	0.47
1:U:173:GLN:HA	1:U:363:TYR:CE1	2.49	0.47
1:W:82:LEU:HD12	1:W:412:ILE:HG23	1.95	0.47
1:X:253:ASN:ND2	1:X:267:GLY:H	2.12	0.47
1:X:257:THR:HG23	1:X:262:THR:HB	1.95	0.47
1:Z:113:GLN:HA	1:Z:116:VAL:HG12	1.96	0.47
1:c:320:GLN:HB2	1:c:338:ASN:HD22	1.79	0.47
1:d:167:SER:OG	1:d:387:VAL:O	2.32	0.47
1:d:358:ASN:HB3	1:d:407:ASN:HD21	1.80	0.47
1:e:391:ASP:OD2	1:e:393:SER:OG	2.32	0.47
1:C:65:THR:HG22	1:C:430:ILE:HG13	1.97	0.47
1:D:177:ASN:ND2	1:D:355:VAL:O	2.48	0.47
1:E:122:GLU:O	1:E:126:ILE:HG13	2.15	0.47
1:G:237:ARG:NH1	1:G:399:GLN:HE22	2.11	0.47
1:G:484:LEU:HB3	1:G:488:ARG:HH21	1.78	0.47
1:H:358:ASN:HB3	1:H:407:ASN:ND2	2.28	0.47
1:H:444:ARG:O	1:H:448:LYS:HB2	2.15	0.47
1:I:88:ILE:O	1:I:92:ILE:HG12	2.14	0.47
1:I:190:THR:C	1:I:348:THR:HA	2.40	0.47
1:M:39:ASN:OD1	1:M:40:SER:N	2.47	0.47
1:M:259:GLY:N	1:M:305:GLU:OE1	2.47	0.47
1:M:269:THR:OG1	1:M:273:ASP:OD2	2.31	0.47
1:O:447:ILE:HG23	1:O:448:LYS:HG2	1.96	0.47
1:S:91:ARG:NH2	1:S:115:GLU:OE1	2.47	0.47
1:V:16:ARG:NH2	1:W:435:ASN:HA	2.29	0.47
1:V:177:ASN:ND2	1:V:355:VAL:O	2.46	0.47
1:W:202:VAL:HG13	1:W:207:VAL:HG22	1.96	0.47
1:Z:401:ALA:HA	1:Z:404:VAL:HG12	1.97	0.47
1:c:193:GLY:HA2	1:c:350:ILE:HD11	1.97	0.47
1:g:273:ASP:O	1:g:277:GLN:HG2	2.14	0.47
1:B:101:ASN:HB3	1:B:106:ASP:HB3	1.95	0.47
1:B:360:PRO:HA	1:B:407:ASN:HB3	1.96	0.47
1:D:11:SER:O	1:D:14:THR:OG1	2.30	0.47
1:N:46:ALA:O	1:N:50:ILE:HG12	2.14	0.47
1:O:76:GLN:O	1:O:79:GLU:HG2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:219:LYS:O	1:Q:223:GLU:HG2	2.15	0.47
1:Q:253:ASN:ND2	1:Q:267:GLY:H	2.13	0.47
1:R:102:GLY:O	1:R:103:SER:OG	2.30	0.47
1:T:88:ILE:O	1:T:92:ILE:HG12	2.15	0.47
1:T:162:GLN:HB2	1:T:415:GLN:HG2	1.97	0.47
1:U:15:GLN:O	1:U:18:LEU:HG	2.14	0.47
1:V:190:THR:C	1:V:348:THR:HA	2.39	0.47
1:W:39:ASN:OD1	1:W:40:SER:N	2.48	0.47
1:W:252:LEU:HB2	1:W:268:VAL:HB	1.97	0.47
1:X:77:THR:HG22	1:a:439:ASN:HB3	1.97	0.47
1:X:244:VAL:H	1:X:271:THR:HG22	1.78	0.47
1:Y:447:ILE:HG23	1:Y:448:LYS:HG2	1.95	0.47
1:Z:114:LYS:HZ2	1:b:418:ASP:HB2	1.79	0.47
1:c:248:THR:OG1	1:c:317:THR:OG1	2.30	0.47
1:B:15:GLN:NE2	1:B:473:LEU:HD11	2.30	0.47
1:B:39:ASN:OD1	1:B:40:SER:N	2.47	0.47
1:B:198:THR:HG22	1:B:371:GLN:HE22	1.80	0.47
1:D:118:ALA:O	1:G:425:ARG:NH1	2.48	0.47
1:D:424:ASN:O	1:D:427:LYS:HG2	2.15	0.47
1:E:148:GLN:NE2	1:E:152:ASN:O	2.47	0.47
1:E:480:PRO:HA	1:E:483:VAL:HG12	1.97	0.47
1:F:59:SER:HA	1:F:62:ASN:HD22	1.78	0.47
1:F:288:THR:HB	1:F:300:THR:HB	1.95	0.47
1:H:112:LEU:HD21	1:J:46:ALA:HB2	1.95	0.47
1:H:162:GLN:HE21	1:H:164:ALA:H	1.62	0.47
1:J:248:THR:OG1	1:J:317:THR:OG1	2.30	0.47
1:J:257:THR:N	1:J:308:LYS:O	2.46	0.47
1:K:23:ASN:HA	1:K:26:ASN:HD21	1.79	0.47
1:L:112:LEU:HD21	1:N:46:ALA:HB2	1.97	0.47
1:M:172:TYR:CE1	1:M:404:VAL:HG22	2.50	0.47
1:M:199:VAL:HG21	1:M:375:VAL:HG21	1.96	0.47
1:M:447:ILE:HG23	1:M:448:LYS:HG2	1.95	0.47
1:M:485:SER:OG	1:P:467:GLN:OE1	2.30	0.47
1:O:109:ARG:HD3	1:O:393:SER:HB2	1.97	0.47
1:S:123:LEU:HA	1:S:126:ILE:HD12	1.95	0.47
1:S:138:LEU:H	1:S:138:LEU:HD23	1.80	0.47
1:T:16:ARG:HH22	1:U:438:GLU:HB2	1.79	0.47
1:T:75:ALA:HB3	1:T:423:GLN:HE21	1.80	0.47
1:T:256:VAL:O	1:T:263:VAL:N	2.38	0.47
1:U:9:ILE:HG12	1:U:11:SER:H	1.79	0.47
1:U:28:SER:HB2	1:U:459:LEU:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:109:ARG:HG3	1:U:393:SER:HB2	1.97	0.47
1:U:301:SER:HG	1:U:305:GLU:CD	2.21	0.47
1:U:469:GLY:O	1:U:473:LEU:HG	2.13	0.47
1:V:39:ASN:OD1	1:V:40:SER:N	2.48	0.47
1:W:12:LEU:HB2	1:X:438:GLU:OE2	2.15	0.47
1:W:238:THR:HA	1:W:353:GLY:HA3	1.97	0.47
1:Y:12:LEU:HA	1:Y:15:GLN:OE1	2.13	0.47
1:Y:418:ASP:O	1:Y:422:VAL:HG23	2.14	0.47
1:a:55:SER:HA	1:a:58:ILE:HG22	1.97	0.47
1:a:164:ALA:HB3	1:a:169:ILE:HD11	1.97	0.47
1:a:253:ASN:ND2	1:a:267:GLY:H	2.13	0.47
1:b:96:ALA:O	1:b:99:SER:OG	2.21	0.47
1:c:101:ASN:O	1:c:105:SER:OG	2.29	0.47
1:d:409:LEU:HA	1:d:412:ILE:HG22	1.96	0.47
1:e:148:GLN:HA	1:e:156:THR:HA	1.96	0.47
1:e:445:SER:HA	1:e:449:ASP:OD2	2.15	0.47
1:f:100:ALA:O	1:f:103:SER:N	2.46	0.47
1:f:167:SER:C	1:f:169:ILE:H	2.23	0.47
1:g:243[A]:ASP:H	1:g:321:VAL:HG23	1.80	0.47
1:A:42:LYS:HD3	1:C:423:GLN:HB2	1.97	0.47
1:C:158:ASP:OD2	1:C:158:ASP:N	2.45	0.47
1:E:113:GLN:OE1	1:E:392:ILE:N	2.47	0.47
1:F:424:ASN:O	1:F:427:LYS:HG3	2.15	0.47
1:G:59:SER:O	1:G:63:VAL:HG23	2.14	0.47
1:I:177:ASN:HB2	1:I:328:SER:HB2	1.97	0.47
1:J:23:ASN:HA	1:J:26:ASN:HD22	1.80	0.47
1:N:444:ARG:O	1:N:448:LYS:HB2	2.15	0.47
1:Q:57:GLN:O	1:Q:61:LEU:HG	2.15	0.47
1:T:199:VAL:HG11	1:T:375:VAL:HG21	1.96	0.47
1:V:458:ALA:O	1:V:461:LYS:HG3	2.14	0.47
1:X:84:GLN:HA	1:X:87:ASN:HD22	1.78	0.47
1:Y:292:ASN:ND2	1:Y:294:LYS:HB2	2.30	0.47
1:a:468:ALA:O	1:a:472:ILE:HG12	2.15	0.47
1:c:185:VAL:HG23	1:c:190:THR:HG21	1.97	0.47
1:d:433:LEU:HA	1:d:436:ILE:HG22	1.97	0.47
1:e:239:VAL:HG22	1:e:300:THR:HG23	1.96	0.47
1:A:93:ARG:NH1	1:B:56:ASN:HB3	2.30	0.47
1:E:212:ILE:HD12	1:E:224:LYS:HZ2	1.80	0.47
1:E:274:LEU:O	1:E:278:LEU:HG	2.15	0.47
1:E:274:LEU:HG	1:E:278:LEU:HD11	1.97	0.47
1:L:329:ASP:OD1	1:L:330:GLY:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:93:ARG:NH2	1:N:409:LEU:HD21	2.29	0.47
1:S:173:GLN:HA	1:S:363:TYR:HE1	1.80	0.47
1:T:259:GLY:N	1:T:305:GLU:OE1	2.48	0.47
1:Y:6:ASN:HB3	1:Y:484:LEU:HD21	1.96	0.47
1:b:277:GLN:O	1:b:281:ASN:ND2	2.48	0.47
1:b:418:ASP:O	1:b:422:VAL:HG13	2.15	0.47
1:c:172:TYR:CZ	1:c:174:VAL:HG22	2.50	0.47
1:f:113:GLN:HA	1:f:116:VAL:HG12	1.97	0.47
1:g:387:VAL:HB	1:g:404:VAL:HG11	1.96	0.47
1:B:53:ARG:HA	1:B:56:ASN:HD22	1.78	0.47
1:N:74:LEU:HD22	1:N:147:PHE:HZ	1.80	0.47
1:P:233:SER:O	1:P:357:LEU:HB2	2.15	0.47
1:Q:145:THR:HG21	1:R:104:ASN:HB3	1.96	0.47
1:Q:248:THR:OG1	1:Q:317:THR:OG1	2.31	0.47
1:S:263:VAL:HG22	1:S:285:LEU:HD21	1.96	0.47
1:T:84:GLN:HE21	1:V:432:ASN:HA	1.80	0.47
1:V:445:SER:HA	1:V:449:ASP:OD1	2.14	0.47
1:b:19:ASN:O	1:b:23:ASN:ND2	2.47	0.47
1:b:427:LYS:HA	1:b:430:ILE:HG22	1.97	0.47
1:c:190:THR:C	1:c:348:THR:HA	2.40	0.47
1:c:257:THR:OG1	1:c:308:LYS:HD2	2.15	0.47
1:d:126:ILE:HG23	1:g:432:ASN:ND2	2.30	0.47
1:f:356:GLN:HE22	1:f:358:ASN:HB3	1.80	0.47
1:g:15:GLN:O	1:g:18:LEU:HG	2.14	0.47
1:B:275:ALA:O	1:B:279:ASN:ND2	2.36	0.46
1:D:396:ASP:HB2	1:D:400:ASN:ND2	2.30	0.46
1:E:238:THR:HA	1:E:353:GLY:HA3	1.97	0.46
1:E:468:ALA:O	1:E:472:ILE:HG12	2.15	0.46
1:G:274:LEU:H	1:G:274:LEU:HD12	1.80	0.46
1:I:222:ALA:HA	1:I:225:MET:HE2	1.97	0.46
1:J:135:ARG:HH21	1:K:104:ASN:HB3	1.80	0.46
1:K:220:ALA:O	1:K:223:GLU:HG3	2.14	0.46
1:K:487:LEU:HG	1:L:456:THR:HG21	1.97	0.46
1:O:269:THR:OG1	1:O:273:ASP:OD2	2.33	0.46
1:P:125:ARG:HH21	1:P:126:ILE:HG12	1.79	0.46
1:P:401:ALA:O	1:P:405:VAL:HG13	2.15	0.46
1:T:42:LYS:HD3	1:U:423:GLN:OE1	2.15	0.46
1:U:83:GLN:O	1:U:86:THR:OG1	2.27	0.46
1:W:298:THR:HG22	1:W:298:THR:O	2.15	0.46
1:W:401:ALA:HA	1:W:404:VAL:HG12	1.98	0.46
1:X:86:THR:HG21	1:X:416:ARG:HH11	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:73:SER:O	1:b:77:THR:HG23	2.15	0.46
1:c:82:LEU:HD12	1:c:412:ILE:HG23	1.96	0.46
1:d:161:LEU:HD21	1:d:419:LEU:HD21	1.97	0.46
1:d:360:PRO:HB3	1:d:407:ASN:O	2.15	0.46
1:g:257:THR:HB	1:g:308:LYS:HB3	1.96	0.46
1:J:357:LEU:HD23	1:J:376:PHE:CZ	2.50	0.46
1:L:248:THR:OG1	1:L:317:THR:OG1	2.31	0.46
1:N:233:SER:O	1:N:357:LEU:HB2	2.14	0.46
1:T:82:LEU:O	1:T:86:THR:HG23	2.16	0.46
1:V:185:VAL:HG13	1:V:190:THR:HG21	1.97	0.46
1:V:219:LYS:HD2	1:V:305:GLU:HA	1.98	0.46
1:b:101:ASN:ND2	1:b:106:ASP:HB2	2.29	0.46
1:c:83:GLN:O	1:c:86:THR:OG1	2.25	0.46
1:d:479:LEU:O	1:d:483:VAL:HG23	2.16	0.46
1:g:231:ASN:O	1:g:360:PRO:HD2	2.15	0.46
1:D:257:THR:N	1:D:308:LYS:O	2.49	0.46
1:E:152:ASN:OD1	1:E:153:ALA:N	2.49	0.46
1:F:189:ALA:HB3	1:F:337:LYS:HE3	1.97	0.46
1:F:464:VAL:HG13	1:F:467:GLN:HE21	1.79	0.46
1:J:138:LEU:HD23	1:J:138:LEU:H	1.81	0.46
1:L:162:GLN:HB2	1:L:415:GLN:HG2	1.98	0.46
1:M:185:VAL:HG13	1:M:190:THR:HG21	1.97	0.46
1:O:199:VAL:HG11	1:O:375:VAL:HG21	1.96	0.46
1:P:167:SER:OG	1:P:387:VAL:O	2.33	0.46
1:T:190:THR:C	1:T:348:THR:HA	2.40	0.46
1:Z:483:VAL:HG13	1:Z:484:LEU:HD22	1.97	0.46
1:a:394:THR:OG1	1:a:395:ALA:N	2.48	0.46
1:b:277:GLN:O	1:b:280:SER:OG	2.24	0.46
1:d:233:SER:O	1:d:357:LEU:HB2	2.14	0.46
1:B:82:LEU:HD21	1:B:138:LEU:HD11	1.98	0.46
1:F:472:ILE:HA	1:F:475:GLN:HG3	1.97	0.46
1:G:268:VAL:HG13	1:G:274:LEU:HD11	1.96	0.46
1:H:141:SER:HA	1:I:293:ASP:HB2	1.98	0.46
1:I:259:GLY:N	1:I:305:GLU:OE2	2.49	0.46
1:J:172:TYR:CE1	1:J:404:VAL:HG22	2.50	0.46
1:J:184:SER:HB2	1:J:374:GLN:HA	1.97	0.46
1:L:167:SER:HA	1:L:387:VAL:HG12	1.97	0.46
1:M:20:ALA:HA	1:M:23:ASN:HD22	1.80	0.46
1:M:292:ASN:ND2	1:M:294:LYS:HB2	2.30	0.46
1:N:125:ARG:CZ	1:P:429:THR:HG23	2.45	0.46
1:N:431:ASP:O	1:N:435:ASN:ND2	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:247:VAL:HG11	1:O:269:THR:HA	1.97	0.46
1:R:138:LEU:HD23	1:R:138:LEU:H	1.81	0.46
1:U:57:GLN:O	1:U:61:LEU:HG	2.16	0.46
1:V:173:GLN:OE1	1:V:362:ALA:HA	2.16	0.46
1:W:470:THR:HG22	1:Z:486:LEU:HD23	1.97	0.46
1:Y:118:ALA:O	1:Y:122:GLU:HG2	2.16	0.46
1:b:83:GLN:OE1	1:b:416:ARG:NH1	2.48	0.46
1:d:265:LEU:HD22	1:d:277:GLN:HB3	1.98	0.46
1:e:124:THR:O	1:e:127:SER:OG	2.33	0.46
1:f:23:ASN:HA	1:f:26:ASN:HD21	1.79	0.46
1:f:49:GLN:HG3	1:f:53:ARG:HE	1.81	0.46
1:f:93:ARG:HH12	1:f:409:LEU:CD2	2.29	0.46
1:g:253:ASN:OD1	1:g:267:GLY:N	2.44	0.46
1:C:320:GLN:HB2	1:C:338:ASN:HD22	1.80	0.46
1:D:427:LYS:O	1:D:430:ILE:HG22	2.16	0.46
1:D:445:SER:HB3	1:F:8:ASN:HD21	1.79	0.46
1:E:138:LEU:HD23	1:E:138:LEU:H	1.81	0.46
1:I:188:THR:HA	1:I:325:VAL:HG21	1.98	0.46
1:I:444:ARG:O	1:I:448:LYS:HB2	2.16	0.46
1:K:476:ALA:HA	1:K:479:LEU:HD13	1.98	0.46
1:M:80:GLY:O	1:M:83:GLN:HG3	2.16	0.46
1:M:169:ILE:O	1:M:169:ILE:HG13	2.16	0.46
1:M:225:MET:HE1	1:M:355:VAL:HG21	1.98	0.46
1:U:109:ARG:HB2	1:U:393:SER:HA	1.97	0.46
1:U:185:VAL:HG22	1:U:190:THR:HG21	1.98	0.46
1:X:479:LEU:O	1:X:483:VAL:HG23	2.15	0.46
1:Y:99:SER:HB2	1:Y:392:ILE:HG23	1.97	0.46
1:Y:156:THR:OG1	1:Y:157:ILE:N	2.49	0.46
1:Y:190:THR:C	1:Y:348:THR:HA	2.40	0.46
1:a:261:ASN:HB2	1:a:284:LYS:HE2	1.96	0.46
1:e:177:ASN:HD21	1:e:327:GLY:HA3	1.80	0.46
1:f:74:LEU:O	1:f:77:THR:OG1	2.32	0.46
1:f:102:GLY:O	1:f:103:SER:OG	2.29	0.46
1:A:13:ASN:OD1	1:A:14:THR:N	2.49	0.46
1:B:55:SER:HA	1:B:58:ILE:HG22	1.98	0.46
1:D:291:ILE:HB	1:D:297:LEU:HD13	1.98	0.46
1:E:18:LEU:O	1:E:466:GLN:NE2	2.49	0.46
1:F:238:THR:HA	1:F:353:GLY:HA3	1.96	0.46
1:G:20:ALA:HA	1:G:23:ASN:HD22	1.80	0.46
1:I:9:ILE:HD11	1:I:480:PRO:HG3	1.98	0.46
1:K:239:VAL:HG22	1:K:300:THR:HG23	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:273:ASP:O	1:L:277:GLN:HG3	2.16	0.46
1:P:127:SER:HA	1:P:138:LEU:HD11	1.96	0.46
1:Z:233:SER:O	1:Z:357:LEU:HB2	2.16	0.46
1:c:131:THR:HG21	1:f:152:ASN:HD21	1.80	0.46
1:c:135:ARG:HD2	1:d:105:SER:HA	1.96	0.46
1:A:147:PHE:HA	1:C:102:GLY:HA2	1.97	0.46
1:B:177:ASN:HD22	1:B:328:SER:HB3	1.81	0.46
1:B:184:SER:OG	1:B:185:VAL:N	2.47	0.46
1:B:472:ILE:HA	1:B:475:GLN:HG3	1.98	0.46
1:D:15:GLN:HE22	1:H:454:ALA:HB2	1.79	0.46
1:H:34:THR:OG1	1:K:17:ASN:ND2	2.48	0.46
1:I:92:ILE:HD11	1:I:119:GLN:HB3	1.98	0.46
1:N:135:ARG:HH21	1:O:104:ASN:ND2	2.14	0.46
1:O:18:LEU:O	1:O:466:GLN:NE2	2.48	0.46
1:O:167:SER:C	1:O:169:ILE:H	2.23	0.46
1:P:7:THR:HG21	1:Q:36:TYR:HE1	1.81	0.46
1:P:74:LEU:HD22	1:P:147:PHE:HZ	1.81	0.46
1:T:359:SER:HB3	1:T:363:TYR:HB3	1.98	0.46
1:V:430:ILE:O	1:V:434:THR:HG23	2.16	0.46
1:W:104:ASN:HA	1:W:109:ARG:HH22	1.81	0.46
1:X:172:TYR:CD1	1:X:404:VAL:HA	2.50	0.46
1:X:390:VAL:HG21	1:X:404:VAL:HG21	1.96	0.46
1:d:220:ALA:O	1:d:224:LYS:HG3	2.16	0.46
1:B:484:LEU:HB3	1:B:488:ARG:HH21	1.80	0.46
1:F:274:LEU:HA	1:F:277:GLN:HE21	1.81	0.46
1:G:177:ASN:ND2	1:G:328:SER:HB3	2.31	0.46
1:G:248:THR:OG1	1:G:317:THR:OG1	2.27	0.46
1:G:389:SER:HB3	1:K:284:LYS:HG3	1.97	0.46
1:H:238:THR:HG23	1:H:304:GLY:HA2	1.97	0.46
1:I:66:ARG:HH21	1:L:447:ILE:HD12	1.80	0.46
1:I:199:VAL:HG23	1:I:210:ILE:HB	1.97	0.46
1:I:291:ILE:HB	1:I:297:LEU:HD13	1.98	0.46
1:J:402:ILE:HA	1:J:405:VAL:HG22	1.97	0.46
1:N:126:ILE:HG23	1:P:432:ASN:ND2	2.30	0.46
1:N:231:ASN:O	1:N:360:PRO:HD2	2.16	0.46
1:N:265:LEU:HD21	1:N:278:LEU:HD23	1.98	0.46
1:R:31:ARG:NE	1:R:37:ARG:O	2.48	0.46
1:R:127:SER:HB3	1:R:139:ASP:HB3	1.96	0.46
1:S:265:LEU:HD12	1:S:277:GLN:HB2	1.98	0.46
1:T:174:VAL:N	1:T:382:ALA:O	2.45	0.46
1:V:83:GLN:O	1:V:86:THR:OG1	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:167:SER:OG	1:W:387:VAL:O	2.33	0.46
1:X:29:LEU:HD12	1:a:472:ILE:HG23	1.97	0.46
1:Y:115:GLU:HG3	1:Y:119:GLN:OE1	2.15	0.46
1:Y:148:GLN:NE2	1:Y:150:GLY:O	2.37	0.46
1:Y:427:LYS:HA	1:Y:430:ILE:HG12	1.98	0.46
1:f:167:SER:HA	1:f:387:VAL:HG12	1.98	0.46
1:B:260:SER:OG	1:B:261:ASN:N	2.49	0.46
1:C:226:ASP:OD1	1:C:234:ALA:N	2.49	0.46
1:D:100:ALA:O	1:D:103:SER:N	2.45	0.46
1:D:169:ILE:O	1:D:169:ILE:HG13	2.15	0.46
1:D:424:ASN:O	1:D:428:ASN:ND2	2.48	0.46
1:E:33:THR:HG21	1:H:14:THR:HG22	1.96	0.46
1:F:11:SER:O	1:F:14:THR:OG1	2.30	0.46
1:G:167:SER:C	1:G:169:ILE:H	2.24	0.46
1:L:75:ALA:HB3	1:L:423:GLN:HE21	1.80	0.46
1:P:161:LEU:HA	1:P:415:GLN:HE22	1.80	0.46
1:R:125:ARG:CZ	1:U:429:THR:HG23	2.46	0.46
1:W:96:ALA:O	1:W:99:SER:OG	2.26	0.46
1:a:168:ALA:C	1:a:170:GLY:H	2.24	0.46
1:a:172:TYR:CD1	1:a:404:VAL:HA	2.50	0.46
1:b:424:ASN:O	1:b:427:LYS:HG3	2.16	0.46
1:d:210:ILE:HG13	1:d:225:MET:HA	1.97	0.46
1:d:411:ALA:O	1:d:415:GLN:HG2	2.16	0.46
1:f:426:PHE:HA	1:f:429:THR:HG22	1.97	0.46
1:g:243[B]:ASP:H	1:g:321:VAL:HG23	1.80	0.46
1:A:273:ASP:O	1:A:277:GLN:HG3	2.15	0.46
1:C:118:ALA:O	1:E:425:ARG:NH1	2.49	0.46
1:C:253:ASN:ND2	1:C:267:GLY:H	2.13	0.46
1:D:253:ASN:ND2	1:D:267:GLY:H	2.14	0.46
1:F:233:SER:O	1:F:357:LEU:HB2	2.15	0.46
1:I:61:LEU:O	1:I:65:THR:HG23	2.16	0.46
1:J:190:THR:C	1:J:348:THR:HA	2.41	0.46
1:K:82:LEU:HD12	1:K:419:LEU:HD12	1.96	0.46
1:L:172:TYR:CD1	1:L:404:VAL:HA	2.51	0.46
1:L:328:SER:HA	1:L:354:TYR:CD1	2.51	0.46
1:M:221:ILE:O	1:M:225:MET:HG2	2.16	0.46
1:N:131:THR:HG21	1:P:152:ASN:HD21	1.81	0.46
1:T:273:ASP:O	1:T:277:GLN:HG2	2.15	0.46
1:U:468:ALA:O	1:U:472:ILE:HG12	2.16	0.46
1:V:83:GLN:OE1	1:V:86:THR:OG1	2.34	0.46
1:V:255:ASP:O	1:V:310:GLY:N	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:273:ASP:O	1:V:277:GLN:HG2	2.16	0.46
1:W:46:ALA:O	1:W:50:ILE:HG13	2.15	0.46
1:a:242:ALA:N	1:a:297:LEU:O	2.48	0.46
1:b:265:LEU:HD21	1:b:277:GLN:HG3	1.98	0.46
1:b:420:ALA:O	1:b:423:GLN:HG2	2.15	0.46
1:d:231:ASN:O	1:d:360:PRO:HD2	2.16	0.46
1:f:411:ALA:O	1:f:415:GLN:HG2	2.15	0.46
1:g:111:ALA:HA	1:g:114:LYS:HG2	1.99	0.46
1:A:185:VAL:HG22	1:A:190:THR:HG21	1.97	0.45
1:F:255:ASP:HB3	1:F:310:GLY:HA3	1.97	0.45
1:G:201:LEU:HD23	1:G:229:ILE:HG13	1.98	0.45
1:G:257:THR:N	1:G:308:LYS:O	2.46	0.45
1:H:95:LEU:HD13	1:H:115:GLU:HG3	1.98	0.45
1:J:52:ASN:O	1:J:56:ASN:ND2	2.49	0.45
1:J:253:ASN:ND2	1:J:267:GLY:H	2.13	0.45
1:K:161:LEU:HD21	1:K:419:LEU:HD21	1.98	0.45
1:Q:394:THR:OG1	1:Q:395:ALA:N	2.50	0.45
1:S:420:ALA:O	1:S:423:GLN:HG3	2.16	0.45
1:T:184:SER:OG	1:T:185:VAL:N	2.49	0.45
1:V:66:ARG:HH22	1:Y:37:ARG:HD3	1.81	0.45
1:V:461:LYS:HA	1:V:464:VAL:HG12	1.97	0.45
1:Y:484:LEU:HB3	1:Y:488:ARG:HH21	1.81	0.45
1:c:225:MET:SD	1:c:357:LEU:HD21	2.56	0.45
1:A:190:THR:O	1:A:350:ILE:HG12	2.16	0.45
1:E:175:GLY:C	1:E:356:GLN:HA	2.41	0.45
1:H:39:ASN:OD1	1:H:40:SER:N	2.48	0.45
1:H:57:GLN:O	1:H:61:LEU:HG	2.17	0.45
1:H:447:ILE:HG23	1:H:448:LYS:HG2	1.97	0.45
1:J:16:ARG:HH22	1:K:438:GLU:HB3	1.81	0.45
1:K:242:ALA:HA	1:K:322:ALA:O	2.17	0.45
1:K:471:ALA:HA	1:N:486:LEU:HD21	1.97	0.45
1:L:266:ALA:O	1:L:277:GLN:NE2	2.46	0.45
1:M:109:ARG:HB2	1:M:393:SER:HA	1.98	0.45
1:M:255:ASP:O	1:M:310:GLY:N	2.45	0.45
1:O:88:ILE:HD11	1:Q:428:ASN:OD1	2.16	0.45
1:P:7:THR:HG21	1:Q:36:TYR:CE1	2.51	0.45
1:V:484:LEU:HB3	1:V:488:ARG:HH21	1.80	0.45
1:W:26:ASN:HA	1:W:29:LEU:HG	1.98	0.45
1:W:83:GLN:OE1	1:W:86:THR:OG1	2.33	0.45
1:X:137:LEU:HD12	1:X:138:LEU:HB3	1.98	0.45
1:b:59:SER:O	1:b:63:VAL:HG22	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:6:ASN:HB3	1:A:484:LEU:HD21	1.97	0.45
1:A:94:ASP:OD1	1:B:59:SER:HB2	2.17	0.45
1:B:487:LEU:HD11	1:f:473:LEU:HD23	1.97	0.45
1:D:108:ASP:OD2	1:D:111:ALA:HB3	2.16	0.45
1:E:401:ALA:HA	1:E:404:VAL:HG12	1.97	0.45
1:F:252:LEU:HA	1:F:312:GLN:HE22	1.80	0.45
1:H:38:ILE:HG23	1:H:44:ASP:HB3	1.98	0.45
1:I:122:GLU:O	1:I:126:ILE:HG12	2.16	0.45
1:I:287:ILE:HD12	1:I:301:SER:HB3	1.99	0.45
1:J:126:ILE:HG12	1:M:432:ASN:HD22	1.81	0.45
1:K:274:LEU:HA	1:K:277:GLN:HE21	1.81	0.45
1:R:171:SER:H	1:R:404:VAL:HG23	1.80	0.45
1:T:357:LEU:HD23	1:T:376:PHE:CZ	2.50	0.45
1:W:458:ALA:HA	1:W:461:LYS:HG2	1.98	0.45
1:X:360:PRO:HA	1:X:407:ASN:HB3	1.98	0.45
1:Z:23:ASN:HA	1:Z:26:ASN:HD21	1.80	0.45
1:c:82:LEU:O	1:c:86:THR:HG23	2.17	0.45
1:c:184:SER:HB2	1:c:373:SER:O	2.16	0.45
1:d:74:LEU:HD13	1:d:132:PHE:CD2	2.51	0.45
1:d:185:VAL:HG22	1:d:190:THR:HG21	1.97	0.45
1:e:145:THR:HG21	1:f:104:ASN:HB2	1.98	0.45
1:f:190:THR:O	1:f:350:ILE:HG12	2.15	0.45
1:C:30:GLN:NE2	1:C:34:THR:OG1	2.49	0.45
1:C:431:ASP:O	1:C:435:ASN:ND2	2.38	0.45
1:E:274:LEU:HA	1:E:277:GLN:HE21	1.81	0.45
1:E:456:THR:O	1:E:459:LEU:HG	2.17	0.45
1:F:384:LYS:HD3	1:F:384:LYS:HA	1.74	0.45
1:G:483:VAL:HG12	1:G:484:LEU:HD22	1.99	0.45
1:H:74:LEU:HG	1:H:137:LEU:HD21	1.98	0.45
1:H:82:LEU:HD21	1:H:138:LEU:HD11	1.99	0.45
1:I:394:THR:OG1	1:I:395:ALA:N	2.50	0.45
1:J:6:ASN:HB3	1:J:484:LEU:HD21	1.99	0.45
1:L:266:ALA:H	1:L:277:GLN:HE22	1.63	0.45
1:O:12:LEU:HA	1:O:15:GLN:HG3	1.98	0.45
1:P:29:LEU:HD12	1:S:472:ILE:HG23	1.97	0.45
1:S:167:SER:O	1:S:167:SER:OG	2.34	0.45
1:T:111:ALA:HA	1:T:114:LYS:HG2	1.98	0.45
1:U:106:ASP:O	1:U:109:ARG:NE	2.38	0.45
1:U:483:VAL:HG12	1:U:484:LEU:HD22	1.99	0.45
1:V:389:SER:HA	1:Z:284:LYS:HD3	1.98	0.45
1:W:478:GLN:HA	1:W:481:GLN:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:255:ASP:O	1:Y:310:GLY:N	2.45	0.45
1:Z:364:SER:HA	1:Z:381:ALA:HA	1.98	0.45
1:a:20:ALA:HA	1:a:23:ASN:HD22	1.81	0.45
1:e:135:ARG:HH21	1:f:104:ASN:HD22	1.65	0.45
1:e:189:ALA:H	1:e:337:LYS:HE3	1.81	0.45
1:e:447:ILE:HG23	1:e:448:LYS:HG2	1.99	0.45
1:e:473:LEU:HD23	1:e:473:LEU:HA	1.77	0.45
1:f:357:LEU:HD23	1:f:376:PHE:HZ	1.82	0.45
1:g:23:ASN:O	1:g:27:THR:HG23	2.16	0.45
1:A:167:SER:O	1:A:169:ILE:N	2.49	0.45
1:D:406:ASP:OD1	1:D:407:ASN:N	2.48	0.45
1:E:57:GLN:O	1:E:61:LEU:HG	2.17	0.45
1:E:220:ALA:O	1:E:223:GLU:HG3	2.16	0.45
1:H:133:GLY:HA2	1:K:53:ARG:NH1	2.32	0.45
1:I:123:LEU:HD23	1:I:126:ILE:HD11	1.98	0.45
1:O:177:ASN:HD21	1:O:354:TYR:HB2	1.82	0.45
1:R:113:GLN:OE1	1:R:392:ILE:N	2.46	0.45
1:T:253:ASN:ND2	1:T:267:GLY:H	2.14	0.45
1:U:73:SER:O	1:U:77:THR:HG23	2.16	0.45
1:X:290:SER:N	1:X:298:THR:O	2.50	0.45
1:c:253:ASN:ND2	1:c:267:GLY:H	2.14	0.45
1:e:57:GLN:O	1:e:61:LEU:HG	2.17	0.45
1:g:48:LEU:O	1:g:52:ASN:ND2	2.48	0.45
1:A:190:THR:C	1:A:348:THR:HA	2.41	0.45
1:B:173:GLN:N	1:B:359:SER:O	2.36	0.45
1:B:196:SER:OG	1:B:197:GLY:N	2.50	0.45
1:C:181:THR:HG23	1:C:378:ASN:HD21	1.80	0.45
1:D:38:ILE:O	1:D:38:ILE:HG13	2.16	0.45
1:D:406:ASP:O	1:D:409:LEU:HG	2.15	0.45
1:G:38:ILE:O	1:G:38:ILE:HG13	2.17	0.45
1:J:126:ILE:HG23	1:M:432:ASN:ND2	2.32	0.45
1:K:429:THR:O	1:K:433:LEU:HD23	2.17	0.45
1:M:113:GLN:HA	1:M:116:VAL:HG22	1.99	0.45
1:N:151:SER:O	1:N:151:SER:OG	2.34	0.45
1:Q:73:SER:O	1:Q:77:THR:HG23	2.16	0.45
1:R:96:ALA:O	1:R:99:SER:OG	2.27	0.45
1:U:74:LEU:O	1:U:77:THR:OG1	2.29	0.45
1:U:148:GLN:HA	1:U:156:THR:HA	1.97	0.45
1:U:239:VAL:HG22	1:U:300:THR:HG23	1.98	0.45
1:U:392:ILE:HD12	1:U:398:ALA:HA	1.99	0.45
1:V:328:SER:HA	1:V:354:TYR:CD1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:18:LEU:HD11	1:W:473:LEU:HD12	1.97	0.45
1:W:23:ASN:O	1:W:27:THR:HG23	2.17	0.45
1:W:38:ILE:HD12	1:W:44:ASP:HB3	1.97	0.45
1:Y:237:ARG:NH1	1:Y:399:GLN:HE22	2.13	0.45
1:a:251:SER:OG	1:a:252:LEU:N	2.50	0.45
1:c:52:ASN:O	1:c:56:ASN:ND2	2.49	0.45
1:f:53:ARG:HA	1:f:56:ASN:HD22	1.82	0.45
1:A:357:LEU:HD23	1:A:376:PHE:CZ	2.51	0.45
1:B:9:ILE:HD11	1:B:480:PRO:HG3	1.98	0.45
1:C:155:GLU:O	1:C:155:GLU:HG3	2.16	0.45
1:D:245:SER:OG	1:D:246:GLY:N	2.48	0.45
1:F:6:ASN:HB3	1:F:484:LEU:HD21	1.99	0.45
1:G:253:ASN:HD22	1:G:266:ALA:HB1	1.80	0.45
1:G:274:LEU:O	1:G:278:LEU:HG	2.17	0.45
1:H:40:SER:O	1:I:416:ARG:NH2	2.49	0.45
1:I:112:LEU:O	1:I:116:VAL:HG13	2.17	0.45
1:I:199:VAL:HG11	1:I:375:VAL:HG21	1.98	0.45
1:I:208:LYS:NZ	1:I:209:ASN:O	2.48	0.45
1:L:259:GLY:N	1:L:305:GLU:OE1	2.49	0.45
1:M:16:ARG:HH22	1:N:438:GLU:CB	2.28	0.45
1:O:16:ARG:HA	1:O:19:ASN:HD22	1.82	0.45
1:P:265:LEU:HD22	1:P:277:GLN:HB2	1.98	0.45
1:Q:357:LEU:HD23	1:Q:376:PHE:CZ	2.51	0.45
1:S:197:GLY:O	1:S:212:ILE:N	2.50	0.45
1:V:261:ASN:HB2	1:V:284:LYS:HE2	1.99	0.45
1:V:456:THR:O	1:V:459:LEU:HG	2.16	0.45
1:W:56:ASN:HD21	1:X:409:LEU:HD13	1.82	0.45
1:Y:12:LEU:HB2	1:Z:438:GLU:OE2	2.16	0.45
1:a:418:ASP:O	1:a:422:VAL:HG13	2.17	0.45
1:c:138:LEU:H	1:c:138:LEU:HD23	1.82	0.45
1:c:429:THR:O	1:c:433:LEU:HD23	2.16	0.45
1:d:176:SER:O	1:d:178:GLY:N	2.49	0.45
1:A:479:LEU:N	1:A:480:PRO:HD2	2.32	0.45
1:G:256:VAL:HB	1:G:263:VAL:HB	1.98	0.45
1:I:82:LEU:HD12	1:I:412:ILE:HG23	1.98	0.45
1:I:184:SER:OG	1:I:185:VAL:N	2.49	0.45
1:K:126:ILE:HD11	1:N:428:ASN:OD1	2.16	0.45
1:M:42:LYS:HB2	1:N:420:ALA:HA	1.97	0.45
1:M:58:ILE:HD11	1:M:444:ARG:HH11	1.82	0.45
1:N:290:SER:O	1:N:298:THR:OG1	2.26	0.45
1:Q:18:LEU:O	1:Q:466:GLN:NE2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:432:ASN:O	1:T:436:ILE:HG22	2.17	0.45
1:V:61:LEU:HD13	1:V:436:ILE:HG23	1.98	0.45
1:V:396:ASP:HB2	1:V:400:ASN:ND2	2.31	0.45
1:V:427:LYS:O	1:V:430:ILE:HG22	2.17	0.45
1:W:381:ALA:HB2	1:X:267:GLY:HA3	1.99	0.45
1:X:356:GLN:HE22	1:X:358:ASN:HB3	1.81	0.45
1:Z:114:LYS:HE2	1:Z:114:LYS:HB3	1.78	0.45
1:a:132:PHE:CE1	1:c:54:LEU:HD11	2.52	0.45
1:a:450:THR:OG1	1:a:455:GLU:OE1	2.33	0.45
1:A:338:ASN:ND2	1:A:341:ALA:HB2	2.32	0.45
1:D:12:LEU:HB2	1:E:438:GLU:CD	2.42	0.45
1:D:478:GLN:HB3	1:D:481:GLN:HE21	1.81	0.45
1:E:21:SER:OG	1:E:466:GLN:NE2	2.47	0.45
1:F:263:VAL:HG22	1:F:285:LEU:HD21	1.98	0.45
1:G:25:LEU:O	1:G:29:LEU:HD23	2.15	0.45
1:H:86:THR:HG21	1:H:416:ARG:HH11	1.82	0.45
1:I:79:GLU:OE1	1:I:416:ARG:NE	2.49	0.45
1:J:471:ALA:O	1:J:475:GLN:HG3	2.17	0.45
1:L:231:ASN:HD22	1:L:360:PRO:HG3	1.81	0.45
1:O:360:PRO:HA	1:O:407:ASN:HB3	1.99	0.45
1:S:6:ASN:HB3	1:S:484:LEU:HD21	1.99	0.45
1:T:257:THR:N	1:T:308:LYS:O	2.50	0.45
1:V:357:LEU:HD23	1:V:376:PHE:HZ	1.81	0.45
1:X:418:ASP:O	1:X:422:VAL:HG23	2.17	0.45
1:Z:138:LEU:HD23	1:Z:138:LEU:H	1.81	0.45
1:c:39:ASN:OD1	1:c:40:SER:N	2.49	0.45
1:c:127:SER:HB2	1:c:139:ASP:HB3	1.97	0.45
1:d:33:THR:OG1	1:g:14:THR:HG23	2.17	0.45
1:f:141:SER:OG	1:g:293:ASP:OD2	2.35	0.45
1:A:66:ARG:NH2	1:D:446:ARG:O	2.48	0.45
1:B:76:GLN:HG3	1:F:439:ASN:ND2	2.32	0.45
1:G:190:THR:C	1:G:348:THR:HA	2.42	0.45
1:I:113:GLN:HA	1:I:116:VAL:HG22	1.98	0.45
1:I:133:GLY:HA2	1:L:53:ARG:HD2	1.98	0.45
1:I:484:LEU:HA	1:I:487:LEU:HG	1.99	0.45
1:J:456:THR:O	1:J:459:LEU:HG	2.16	0.45
1:N:185:VAL:HG22	1:N:190:THR:HG21	1.99	0.45
1:O:116:VAL:HG11	1:O:392:ILE:HG13	1.99	0.45
1:O:190:THR:C	1:O:348:THR:HA	2.42	0.45
1:P:185:VAL:HG22	1:P:190:THR:HG21	1.99	0.45
1:Q:138:LEU:HD23	1:Q:138:LEU:H	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:147:PHE:CD1	1:U:102:GLY:HA2	2.52	0.45
1:T:285:LEU:HD13	1:T:287:ILE:HG13	1.99	0.45
1:U:387:VAL:HB	1:U:404:VAL:HG11	1.99	0.45
1:V:16:ARG:HH22	1:W:438:GLU:HB3	1.82	0.45
1:W:142:PHE:CD2	1:W:161:LEU:HB2	2.52	0.45
1:W:287:ILE:HG22	1:W:288:THR:H	1.81	0.45
1:Y:39:ASN:OD1	1:Y:40:SER:N	2.49	0.45
1:Y:357:LEU:HD23	1:Y:376:PHE:CZ	2.51	0.45
1:d:221:ILE:O	1:d:225:MET:HG2	2.16	0.45
1:d:308:LYS:HG2	1:d:309:PHE:H	1.81	0.45
1:e:484:LEU:HB3	1:e:488:ARG:HE	1.82	0.45
1:f:59:SER:O	1:f:63:VAL:HG22	2.17	0.45
1:f:167:SER:HA	1:f:387:VAL:CG1	2.46	0.45
1:A:357:LEU:HD23	1:A:376:PHE:HZ	1.83	0.44
1:B:167:SER:O	1:B:169:ILE:N	2.50	0.44
1:C:235:ARG:NH1	1:C:237:ARG:HB2	2.32	0.44
1:E:237:ARG:HB2	1:E:354:TYR:CE2	2.52	0.44
1:G:254:PHE:HB3	1:G:312:GLN:HA	1.99	0.44
1:H:91:ARG:O	1:H:95:LEU:HG	2.17	0.44
1:H:255:ASP:HB3	1:H:310:GLY:HA3	1.99	0.44
1:J:125:ARG:HD3	1:M:157:ILE:HD11	1.99	0.44
1:J:357:LEU:HD23	1:J:376:PHE:HZ	1.82	0.44
1:K:38:ILE:HG13	1:K:38:ILE:O	2.16	0.44
1:K:61:LEU:HD12	1:K:151:SER:HB3	1.99	0.44
1:K:84:GLN:HB3	1:K:126:ILE:HD13	1.99	0.44
1:N:88:ILE:HG21	1:N:123:LEU:HB2	1.98	0.44
1:P:42:LYS:HE3	1:Q:423:GLN:HG3	1.99	0.44
1:P:238:THR:HG23	1:P:353:GLY:N	2.31	0.44
1:R:74:LEU:HD13	1:R:147:PHE:HZ	1.82	0.44
1:T:255:ASP:O	1:T:310:GLY:N	2.45	0.44
1:V:253:ASN:HD22	1:V:266:ALA:HB1	1.82	0.44
1:X:261:ASN:HB2	1:X:284:LYS:HE2	2.00	0.44
1:X:392:ILE:HA	1:X:397:GLY:HA3	1.99	0.44
1:X:470:THR:HG21	1:a:483:VAL:HG23	1.98	0.44
1:Y:23:ASN:HA	1:Y:26:ASN:HD21	1.80	0.44
1:d:74:LEU:HD21	1:d:137:LEU:HD11	1.97	0.44
1:D:122:GLU:OE1	1:D:126:ILE:HD11	2.18	0.44
1:D:290:SER:OG	1:F:143:GLY:O	2.35	0.44
1:D:480:PRO:HA	1:D:483:VAL:HG22	1.98	0.44
1:H:52:ASN:O	1:H:56:ASN:ND2	2.51	0.44
1:I:106:ASP:O	1:I:109:ARG:NH1	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:463:GLN:O	1:I:467:GLN:HG2	2.16	0.44
1:R:174:VAL:HG11	1:R:179:ALA:HB2	1.99	0.44
1:S:261:ASN:HB2	1:S:284:LYS:HE3	1.99	0.44
1:U:438:GLU:O	1:U:442:ASN:ND2	2.51	0.44
1:V:172:TYR:CE1	1:V:404:VAL:HG22	2.52	0.44
1:X:455:GLU:OE1	1:X:455:GLU:N	2.51	0.44
1:Y:253:ASN:HD22	1:Y:266:ALA:HB1	1.82	0.44
1:b:38:ILE:HD12	1:b:44:ASP:HB2	1.98	0.44
1:g:139:ASP:HA	1:g:164:ALA:HA	1.99	0.44
1:g:484:LEU:HD13	1:g:487:LEU:HD21	1.99	0.44
1:D:328:SER:HA	1:D:354:TYR:CD1	2.52	0.44
1:E:132:PHE:HE1	1:H:54:LEU:HD21	1.83	0.44
1:J:39:ASN:OD1	1:J:40:SER:N	2.50	0.44
1:K:284:LYS:HD2	1:K:285:LEU:HD22	1.99	0.44
1:K:483:VAL:HG23	1:K:484:LEU:HD22	1.99	0.44
1:Q:89:LEU:HD21	1:Q:405:VAL:HB	1.99	0.44
1:S:396:ASP:OD2	1:S:396:ASP:N	2.49	0.44
1:T:219:LYS:HD2	1:T:305:GLU:HA	1.99	0.44
1:T:444:ARG:O	1:T:448:LYS:HB2	2.17	0.44
1:T:483:VAL:HG23	1:T:484:LEU:HD22	1.98	0.44
1:U:50:ILE:HD12	1:U:53:ARG:HH21	1.83	0.44
1:U:126:ILE:HG23	1:W:432:ASN:ND2	2.32	0.44
1:U:233:SER:O	1:U:357:LEU:HB2	2.17	0.44
1:V:80:GLY:O	1:V:84:GLN:HG2	2.18	0.44
1:W:427:LYS:HA	1:W:430:ILE:HG22	1.97	0.44
1:Z:220:ALA:O	1:Z:223:GLU:HG3	2.17	0.44
1:a:430:ILE:O	1:a:434:THR:HG23	2.17	0.44
1:c:9:ILE:HG22	1:c:11:SER:H	1.82	0.44
1:e:82:LEU:HD12	1:e:419:LEU:HD22	1.98	0.44
1:e:363:TYR:CE1	1:e:382:ALA:HA	2.52	0.44
1:g:171:SER:OG	1:g:404:VAL:HA	2.17	0.44
1:A:133:GLY:HA2	1:D:53:ARG:HD2	1.99	0.44
1:A:198:THR:HG22	1:A:209:ASN:HB3	1.99	0.44
1:A:480:PRO:O	1:A:484:LEU:HG	2.18	0.44
1:C:393:SER:OG	1:C:394:THR:N	2.50	0.44
1:D:15:GLN:O	1:D:18:LEU:HG	2.17	0.44
1:H:38:ILE:HB	1:H:448:LYS:HD2	1.99	0.44
1:J:38:ILE:HG13	1:J:448:LYS:HD2	2.00	0.44
1:J:55:SER:HA	1:J:58:ILE:HG22	2.00	0.44
1:J:59:SER:HB3	1:K:94:ASP:OD2	2.16	0.44
1:N:109:ARG:HB2	1:N:393:SER:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:483:VAL:HG12	1:P:484:LEU:HD22	2.00	0.44
1:Q:239:VAL:HG22	1:Q:300:THR:HG23	1.98	0.44
1:R:111:ALA:HA	1:R:114:LYS:HD3	1.99	0.44
1:R:133:GLY:HA2	1:U:53:ARG:HD2	2.00	0.44
1:S:57:GLN:O	1:S:61:LEU:HG	2.17	0.44
1:U:31:ARG:NE	1:U:37:ARG:O	2.51	0.44
1:U:165:SER:O	1:U:165:SER:OG	2.35	0.44
1:V:199:VAL:HG11	1:V:375:VAL:HG21	1.99	0.44
1:Y:173:GLN:OE1	1:Y:362:ALA:HA	2.17	0.44
1:e:38:ILE:HB	1:e:448:LYS:HD2	1.99	0.44
1:g:274:LEU:HA	1:g:277:GLN:HE21	1.82	0.44
1:B:396:ASP:OD1	1:B:397:GLY:N	2.49	0.44
1:D:37:ARG:HG3	1:D:38:ILE:H	1.83	0.44
1:D:131:THR:HG21	1:G:152:ASN:HD21	1.83	0.44
1:E:273:ASP:O	1:E:277:GLN:HG2	2.18	0.44
1:E:483:VAL:HG22	1:E:487:LEU:HD23	1.99	0.44
1:F:387:VAL:HB	1:F:404:VAL:HG11	1.99	0.44
1:J:173:GLN:OE1	1:J:362:ALA:HA	2.16	0.44
1:N:480:PRO:HA	1:N:483:VAL:HG12	2.00	0.44
1:O:82:LEU:HB3	1:O:416:ARG:HG2	2.00	0.44
1:V:16:ARG:HH22	1:W:438:GLU:CB	2.30	0.44
1:V:184:SER:HB3	1:V:374:GLN:HA	1.98	0.44
1:V:429:THR:O	1:V:433:LEU:HD23	2.18	0.44
1:X:177:ASN:ND2	1:X:355:VAL:O	2.50	0.44
1:b:200:ASN:N	1:b:366:SER:O	2.50	0.44
1:c:148:GLN:HG3	1:c:155:GLU:O	2.17	0.44
1:d:240:PHE:HB3	1:d:325:VAL:HG22	1.99	0.44
1:e:444:ARG:HA	1:e:447:ILE:HG22	2.00	0.44
1:B:74:LEU:HD11	1:B:135:ARG:HH12	1.82	0.44
1:C:168:ALA:HA	1:C:387:VAL:H	1.81	0.44
1:C:241:THR:HG21	1:C:324:LYS:HE2	2.00	0.44
1:D:248:THR:OG1	1:D:317:THR:OG1	2.31	0.44
1:G:9:ILE:HD11	1:G:480:PRO:HG3	2.00	0.44
1:G:184:SER:OG	1:G:185:VAL:N	2.50	0.44
1:G:221:ILE:O	1:G:225:MET:HG2	2.18	0.44
1:H:376:PHE:HB3	1:H:379:ALA:HB3	2.00	0.44
1:J:256:VAL:HB	1:J:263:VAL:HB	1.99	0.44
1:K:424:ASN:O	1:K:427:LYS:HG2	2.17	0.44
1:L:84:GLN:HA	1:L:87:ASN:HD22	1.82	0.44
1:N:39:ASN:OD1	1:N:40:SER:N	2.50	0.44
1:N:176:SER:O	1:N:178:GLY:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:198:THR:HA	1:N:211:ALA:HA	1.98	0.44
1:O:31:ARG:NE	1:O:37:ARG:O	2.50	0.44
1:T:426:PHE:HA	1:T:429:THR:HG22	2.00	0.44
1:V:387:VAL:HG23	1:V:404:VAL:HG11	2.00	0.44
1:a:73:SER:O	1:a:77:THR:HG23	2.18	0.44
1:e:6:ASN:HB3	1:e:484:LEU:HD21	2.00	0.44
1:e:42:LYS:HB2	1:f:420:ALA:HA	2.00	0.44
1:f:487:LEU:HD22	1:g:456:THR:HG21	1.99	0.44
1:C:210:ILE:HD12	1:C:212:ILE:HD11	2.00	0.44
1:D:39:ASN:OD1	1:D:40:SER:N	2.50	0.44
1:E:424:ASN:O	1:E:427:LYS:HG2	2.18	0.44
1:H:483:VAL:HG23	1:H:484:LEU:HD22	1.99	0.44
1:I:53:ARG:O	1:I:57:GLN:HG2	2.17	0.44
1:L:469:GLY:HA2	1:L:472:ILE:HG22	2.00	0.44
1:N:125:ARG:NH1	1:N:129:THR:OG1	2.50	0.44
1:Q:169:ILE:HG13	1:Q:169:ILE:O	2.17	0.44
1:T:100:ALA:O	1:T:103:SER:N	2.46	0.44
1:X:256:VAL:O	1:X:263:VAL:N	2.38	0.44
1:X:290:SER:O	1:X:298:THR:N	2.29	0.44
1:a:357:LEU:HD23	1:a:376:PHE:CZ	2.52	0.44
1:b:238:THR:HG23	1:b:353:GLY:N	2.33	0.44
1:b:309:PHE:HB3	1:b:340:VAL:HG23	1.99	0.44
1:c:53:ARG:HA	1:c:56:ASN:HD22	1.82	0.44
1:d:59:SER:O	1:d:63:VAL:HG23	2.17	0.44
1:A:468:ALA:O	1:A:472:ILE:HG12	2.18	0.44
1:B:37:ARG:HG3	1:B:38:ILE:H	1.83	0.44
1:C:11:SER:O	1:C:14:THR:OG1	2.30	0.44
1:I:184:SER:HB3	1:I:374:GLN:HA	1.99	0.44
1:M:101:ASN:O	1:M:105:SER:OG	2.23	0.44
1:N:61:LEU:HD22	1:N:433:LEU:HD12	1.98	0.44
1:O:9:ILE:HG22	1:O:11:SER:H	1.83	0.44
1:O:273:ASP:O	1:O:277:GLN:HG3	2.18	0.44
1:O:324:LYS:HD2	1:O:333:GLU:O	2.18	0.44
1:P:18:LEU:HD21	1:P:469:GLY:HA3	2.00	0.44
1:P:49:GLN:HA	1:Q:413:ASP:OD1	2.18	0.44
1:R:76:GLN:HG3	1:U:439:ASN:ND2	2.33	0.44
1:R:208:LYS:HD3	1:R:208:LYS:HA	1.85	0.44
1:U:133:GLY:HA2	1:W:53:ARG:HD2	2.00	0.44
1:V:68:ALA:O	1:V:72:ILE:HG23	2.18	0.44
1:X:469:GLY:HA2	1:X:472:ILE:HG22	2.00	0.44
1:Y:9:ILE:HG22	1:Y:11:SER:H	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:120:GLN:O	1:Y:123:LEU:HG	2.18	0.44
1:Y:396:ASP:HB2	1:Y:400:ASN:HD22	1.83	0.44
1:Z:297:LEU:HD12	1:Z:299:ILE:HD11	2.00	0.44
1:b:461:LYS:HB3	1:b:461:LYS:HE3	1.76	0.44
1:d:158:ASP:OD1	1:d:159:ILE:N	2.50	0.44
1:g:239:VAL:HG22	1:g:300:THR:HG23	2.00	0.44
1:A:265:LEU:HB2	1:A:277:GLN:OE1	2.17	0.44
1:B:235:ARG:NH2	1:B:399:GLN:OE1	2.46	0.44
1:D:190:THR:C	1:D:348:THR:HA	2.43	0.44
1:D:396:ASP:OD1	1:D:397:GLY:N	2.50	0.44
1:E:263:VAL:HG21	1:E:281:ASN:ND2	2.33	0.44
1:G:8:ASN:HD21	1:H:445:SER:HB2	1.82	0.44
1:I:167:SER:HA	1:I:387:VAL:CG1	2.48	0.44
1:J:83:GLN:OE1	1:J:416:ARG:NH1	2.51	0.44
1:K:33:THR:HG21	1:N:14:THR:HG22	2.00	0.44
1:O:66:ARG:HH22	1:Q:37:ARG:HD3	1.83	0.44
1:Q:83:GLN:O	1:Q:86:THR:OG1	2.29	0.44
1:S:61:LEU:O	1:S:65:THR:HG23	2.18	0.44
1:S:83:GLN:OE1	1:S:86:THR:OG1	2.36	0.44
1:S:95:LEU:HD13	1:S:116:VAL:HG12	1.99	0.44
1:U:257:THR:O	1:U:308:LYS:N	2.39	0.44
1:U:293:ASP:OD2	1:U:293:ASP:N	2.51	0.44
1:W:126:ILE:HG23	1:Z:432:ASN:ND2	2.33	0.44
1:Z:56:ASN:HB3	1:a:93:ARG:NH1	2.32	0.44
1:a:16:ARG:HA	1:a:19:ASN:HD22	1.83	0.44
1:a:400:ASN:O	1:a:404:VAL:HG23	2.18	0.44
1:d:16:ARG:HA	1:d:19:ASN:HD22	1.83	0.44
1:d:33:THR:HB	1:g:472:ILE:HD13	1.99	0.44
1:f:402:ILE:HA	1:f:405:VAL:HG22	1.98	0.44
1:g:89:LEU:HD22	1:g:405:VAL:HG23	1.99	0.44
1:g:463:GLN:O	1:g:466:GLN:HG3	2.18	0.44
1:g:481:GLN:OE1	1:g:481:GLN:N	2.46	0.44
1:A:400:ASN:O	1:A:404:VAL:HG23	2.18	0.43
1:A:455:GLU:OE1	1:A:455:GLU:N	2.50	0.43
1:C:184:SER:OG	1:C:185:VAL:N	2.51	0.43
1:D:104:ASN:HD22	1:F:135:ARG:HH21	1.66	0.43
1:G:42:LYS:HE3	1:H:427:LYS:HZ1	1.83	0.43
1:G:253:ASN:ND2	1:G:267:GLY:H	2.16	0.43
1:G:396:ASP:HB2	1:G:400:ASN:HD22	1.83	0.43
1:H:202:VAL:HG13	1:H:207:VAL:HG22	1.99	0.43
1:I:88:ILE:HD11	1:L:428:ASN:HB3	1.98	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:177:ASN:ND2	1:I:186:ALA:O	2.52	0.43
1:I:427:LYS:HA	1:I:430:ILE:HG22	1.99	0.43
1:L:124:THR:O	1:L:127:SER:OG	2.29	0.43
1:N:125:ARG:HD3	1:P:157:ILE:HD11	1.99	0.43
1:N:326:GLN:HB3	1:N:332:PHE:CD2	2.53	0.43
1:O:108:ASP:CG	1:P:49:GLN:HG2	2.43	0.43
1:Q:181:THR:HG23	1:Q:378:ASN:HD21	1.83	0.43
1:R:33:THR:HG21	1:U:14:THR:HG22	2.00	0.43
1:S:9:ILE:HG22	1:S:11:SER:H	1.82	0.43
1:W:55:SER:HA	1:W:58:ILE:HG22	2.00	0.43
1:X:290:SER:O	1:X:297:LEU:HD12	2.18	0.43
1:Y:59:SER:O	1:Y:63:VAL:HG12	2.18	0.43
1:Z:72:ILE:HB	1:b:446:ARG:HH12	1.83	0.43
1:b:219:LYS:NZ	1:b:305:GLU:HA	2.32	0.43
1:c:21:SER:OG	1:c:466:GLN:NE2	2.41	0.43
1:c:109:ARG:HD3	1:c:393:SER:O	2.18	0.43
1:e:64:ALA:HB3	1:e:433:LEU:HD21	1.99	0.43
1:g:54:LEU:O	1:g:58:ILE:HG12	2.18	0.43
1:g:390:VAL:HG13	1:g:401:ALA:HB2	2.00	0.43
1:A:15:GLN:HE21	1:E:454:ALA:HA	1.83	0.43
1:A:42:LYS:HB2	1:C:420:ALA:HA	1.99	0.43
1:A:177:ASN:ND2	1:A:354:TYR:HB2	2.33	0.43
1:A:320:GLN:HB2	1:A:338:ASN:ND2	2.33	0.43
1:A:429:THR:O	1:A:433:LEU:HD23	2.18	0.43
1:B:69:ASN:O	1:B:72:ILE:HG12	2.18	0.43
1:D:394:THR:HG23	1:D:395:ALA:N	2.33	0.43
1:F:221:ILE:O	1:F:224:LYS:HG2	2.17	0.43
1:G:401:ALA:O	1:G:405:VAL:HG13	2.18	0.43
1:H:53:ARG:HA	1:H:56:ASN:HD22	1.83	0.43
1:I:253:ASN:ND2	1:I:267:GLY:H	2.16	0.43
1:J:418:ASP:O	1:J:422:VAL:HG23	2.18	0.43
1:K:220:ALA:O	1:K:224:LYS:HG3	2.18	0.43
1:M:94:ASP:O	1:M:97:LEU:HG	2.18	0.43
1:M:337:LYS:HE3	1:M:348:THR:HG21	2.00	0.43
1:M:427:LYS:O	1:M:430:ILE:HG22	2.18	0.43
1:N:483:VAL:HG13	1:N:484:LEU:HD22	1.98	0.43
1:Q:74:LEU:HD22	1:Q:147:PHE:HZ	1.84	0.43
1:Q:172:TYR:CE2	1:Q:174:VAL:HG12	2.53	0.43
1:S:113:GLN:HA	1:S:116:VAL:HG22	2.00	0.43
1:T:16:ARG:NH2	1:U:434:THR:O	2.51	0.43
1:X:14:THR:O	1:X:18:LEU:HD23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:202:VAL:HB	1:X:364:SER:HB3	1.99	0.43
1:X:450:THR:HG23	1:X:452:PHE:HD2	1.81	0.43
1:b:12:LEU:HA	1:b:15:GLN:OE1	2.18	0.43
1:c:9:ILE:HD11	1:c:480:PRO:HG3	1.99	0.43
1:d:125:ARG:HH22	1:g:432:ASN:HD22	1.66	0.43
1:d:175:GLY:HA3	1:d:356:GLN:HG2	2.00	0.43
1:f:135:ARG:HE	1:g:104:ASN:CG	2.25	0.43
1:g:406:ASP:O	1:g:409:LEU:HG	2.18	0.43
1:A:73:SER:HB2	1:D:443:ALA:HB2	2.00	0.43
1:C:11:SER:O	1:C:11:SER:OG	2.36	0.43
1:C:150:GLY:HA3	1:C:155:GLU:CD	2.43	0.43
1:D:114:LYS:NZ	1:G:414:ALA:O	2.47	0.43
1:D:331:LYS:HD2	1:D:331:LYS:O	2.18	0.43
1:F:238:THR:HG23	1:F:353:GLY:N	2.33	0.43
1:G:66:ARG:HH22	1:J:37:ARG:HD3	1.84	0.43
1:H:258:VAL:HG13	1:H:307:VAL:HG12	2.00	0.43
1:J:65:THR:HG23	1:J:430:ILE:HD11	1.99	0.43
1:K:49:GLN:O	1:K:53:ARG:HG3	2.18	0.43
1:L:38:ILE:O	1:L:38:ILE:HG13	2.18	0.43
1:M:168:ALA:HB2	1:M:386:SER:H	1.83	0.43
1:M:424:ASN:HA	1:M:427:LYS:HE2	2.00	0.43
1:M:444:ARG:O	1:M:448:LYS:HB2	2.18	0.43
1:N:135:ARG:HH21	1:O:104:ASN:HD22	1.66	0.43
1:O:256:VAL:HG12	1:O:258:VAL:HG13	2.01	0.43
1:P:177:ASN:HD21	1:P:327:GLY:HA3	1.83	0.43
1:P:452:PHE:HA	1:P:455:GLU:HB3	1.99	0.43
1:V:21:SER:HB2	1:V:466:GLN:HG2	2.00	0.43
1:W:113:GLN:OE1	1:W:392:ILE:N	2.45	0.43
1:a:112:LEU:HD21	1:b:46:ALA:HB2	1.99	0.43
1:d:162:GLN:NE2	1:d:163:ASN:OD1	2.51	0.43
1:e:21:SER:OG	1:e:466:GLN:NE2	2.39	0.43
1:e:399:GLN:HA	1:e:402:ILE:HD12	2.01	0.43
1:f:162:GLN:HB2	1:f:415:GLN:HG3	2.00	0.43
1:g:160:SER:O	1:g:415:GLN:NE2	2.48	0.43
1:g:160:SER:OG	1:g:418:ASP:OD2	2.26	0.43
1:g:484:LEU:HA	1:g:487:LEU:HG	1.99	0.43
1:A:338:ASN:OD1	1:A:339:VAL:N	2.51	0.43
1:A:392:ILE:HA	1:A:397:GLY:HA3	2.00	0.43
1:D:9:ILE:HG22	1:D:11:SER:H	1.82	0.43
1:F:235:ARG:HH12	1:F:237:ARG:HH11	1.65	0.43
1:F:392:ILE:HD12	1:F:398:ALA:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:463:GLN:HE22	1:H:467:GLN:HE21	1.66	0.43
1:I:116:VAL:HG11	1:I:392:ILE:HG13	1.99	0.43
1:L:253:ASN:ND2	1:L:267:GLY:H	2.16	0.43
1:L:435:ASN:OD1	1:L:439:ASN:ND2	2.50	0.43
1:N:278:LEU:O	1:N:282:SER:N	2.52	0.43
1:O:125:ARG:HH22	1:Q:432:ASN:HD22	1.65	0.43
1:Q:11:SER:O	1:Q:14:THR:OG1	2.31	0.43
1:U:427:LYS:O	1:U:430:ILE:HG22	2.18	0.43
1:V:12:LEU:HB2	1:W:438:GLU:OE1	2.18	0.43
1:V:177:ASN:HD21	1:V:355:VAL:H	1.65	0.43
1:Y:113:GLN:HA	1:Y:116:VAL:HG22	1.98	0.43
1:Y:396:ASP:HB2	1:Y:400:ASN:ND2	2.33	0.43
1:b:12:LEU:HB2	1:c:438:GLU:OE2	2.19	0.43
1:A:292:ASN:ND2	1:A:294:LYS:HB2	2.34	0.43
1:B:328:SER:HA	1:B:354:TYR:CD1	2.53	0.43
1:D:188:THR:OG1	1:D:337:LYS:NZ	2.32	0.43
1:D:447:ILE:HG23	1:D:448:LYS:HG2	1.99	0.43
1:E:125:ARG:HD3	1:H:157:ILE:HD11	1.99	0.43
1:E:424:ASN:HA	1:E:427:LYS:HD3	2.00	0.43
1:F:73:SER:O	1:F:77:THR:HG23	2.19	0.43
1:F:309:PHE:HB3	1:F:340:VAL:HG23	2.01	0.43
1:G:99:SER:O	1:G:101:ASN:ND2	2.52	0.43
1:G:247:VAL:HG11	1:G:269:THR:HA	2.00	0.43
1:H:366:SER:OG	1:H:367:GLY:N	2.51	0.43
1:I:360:PRO:HA	1:I:407:ASN:HB3	2.00	0.43
1:K:425:ARG:O	1:K:429:THR:OG1	2.28	0.43
1:L:199:VAL:HG11	1:L:375:VAL:HG21	2.01	0.43
1:M:18:LEU:HD23	1:M:18:LEU:HA	1.88	0.43
1:M:427:LYS:HA	1:M:430:ILE:HG22	2.00	0.43
1:P:66:ARG:NH2	1:S:446:ARG:O	2.51	0.43
1:S:175:GLY:C	1:S:356:GLN:HA	2.43	0.43
1:X:221:ILE:O	1:X:225:MET:HG2	2.19	0.43
1:Y:59:SER:HB2	1:Z:94:ASP:OD1	2.18	0.43
1:b:208:LYS:HE3	1:b:228:ALA:HB1	2.01	0.43
1:b:386:SER:O	1:b:386:SER:OG	2.31	0.43
1:c:177:ASN:HA	1:c:376:PHE:HA	2.01	0.43
1:d:139:ASP:HA	1:d:164:ALA:HA	1.99	0.43
1:f:158:ASP:OD1	1:f:159:ILE:N	2.52	0.43
1:A:424:ASN:O	1:A:427:LYS:HG2	2.19	0.43
1:B:488:ARG:NH2	1:D:467:GLN:HG3	2.34	0.43
1:C:93:ARG:HH21	1:C:405:VAL:HG23	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:77:THR:HG22	1:K:439:ASN:HB2	2.00	0.43
1:J:483:VAL:HG13	1:J:484:LEU:HD22	1.99	0.43
1:K:18:LEU:O	1:K:466:GLN:NE2	2.52	0.43
1:K:83:GLN:O	1:K:87:ASN:ND2	2.52	0.43
1:M:167:SER:C	1:M:169:ILE:N	2.76	0.43
1:O:113:GLN:HA	1:O:116:VAL:HG12	1.99	0.43
1:O:424:ASN:HA	1:O:427:LYS:HD3	2.00	0.43
1:R:202:VAL:O	1:R:364:SER:OG	2.35	0.43
1:R:202:VAL:HG13	1:R:207:VAL:HG22	2.01	0.43
1:T:239:VAL:HG22	1:T:300:THR:HB	2.00	0.43
1:U:238:THR:HG23	1:U:353:GLY:N	2.34	0.43
1:V:69:ASN:HA	1:V:72:ILE:HG12	1.99	0.43
1:X:18:LEU:O	1:X:466:GLN:NE2	2.52	0.43
1:X:50:ILE:HA	1:X:53:ARG:HG2	2.01	0.43
1:Y:145:THR:OG1	1:Z:102:GLY:O	2.22	0.43
1:Z:74:LEU:HD23	1:Z:147:PHE:HZ	1.83	0.43
1:Z:148:GLN:HA	1:Z:156:THR:HA	2.01	0.43
1:a:167:SER:C	1:a:169:ILE:H	2.27	0.43
1:b:69:ASN:HA	1:b:72:ILE:HG12	2.01	0.43
1:c:117:ALA:HB1	1:g:283:SER:HB2	2.01	0.43
1:e:237:ARG:NE	1:e:354:TYR:OH	2.51	0.43
1:C:454:ALA:HA	1:g:15:GLN:HE21	1.84	0.43
1:D:483:VAL:HG23	1:D:484:LEU:HD22	2.01	0.43
1:G:252:LEU:HA	1:G:312:GLN:HE21	1.84	0.43
1:H:125:ARG:HD3	1:K:157:ILE:HD11	2.01	0.43
1:J:74:LEU:HD11	1:J:135:ARG:HH12	1.84	0.43
1:K:392:ILE:HD12	1:K:398:ALA:HA	2.00	0.43
1:O:357:LEU:HD23	1:O:376:PHE:CZ	2.48	0.43
1:P:208:LYS:HD3	1:P:208:LYS:HA	1.82	0.43
1:Q:54:LEU:O	1:Q:58:ILE:HG13	2.19	0.43
1:Q:69:ASN:OD1	1:T:446:ARG:NH2	2.46	0.43
1:Q:101:ASN:HB2	1:Q:109:ARG:HH21	1.82	0.43
1:Q:254:PHE:HB3	1:Q:312:GLN:HA	1.99	0.43
1:S:220:ALA:O	1:S:223:GLU:HG3	2.19	0.43
1:S:337:LYS:HD3	1:S:348:THR:HG21	2.00	0.43
1:S:447:ILE:HG23	1:S:448:LYS:HG2	2.00	0.43
1:T:383:GLN:OE1	1:T:383:GLN:N	2.52	0.43
1:V:147:PHE:CD1	1:W:102:GLY:HA2	2.54	0.43
1:V:221:ILE:HG13	1:V:222:ALA:N	2.34	0.43
1:V:320:GLN:HB2	1:V:338:ASN:HD22	1.82	0.43
1:W:355:VAL:O	1:W:355:VAL:HG12	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:167:SER:C	1:Y:169:ILE:N	2.76	0.43
1:Y:241:THR:O	1:Y:323:VAL:HG23	2.19	0.43
1:a:324:LYS:HE3	1:a:336:ALA:HB2	2.00	0.43
1:c:23:ASN:O	1:c:27:THR:HG23	2.19	0.43
1:c:145:THR:OG1	1:d:102:GLY:O	2.22	0.43
1:c:264:SER:O	1:c:264:SER:OG	2.30	0.43
1:c:418:ASP:O	1:c:422:VAL:HG13	2.18	0.43
1:c:444:ARG:O	1:c:448:LYS:HB2	2.19	0.43
1:e:141:SER:HA	1:f:293:ASP:HB2	2.00	0.43
1:g:278:LEU:O	1:g:282:SER:OG	2.25	0.43
1:A:419:LEU:HA	1:A:422:VAL:HG22	2.00	0.43
1:B:255:ASP:O	1:B:310:GLY:N	2.51	0.43
1:B:456:THR:O	1:B:459:LEU:HG	2.19	0.43
1:B:461:LYS:O	1:B:464:VAL:HG22	2.19	0.43
1:C:329:ASP:OD1	1:C:331:LYS:NZ	2.46	0.43
1:E:244:VAL:H	1:E:271:THR:HG22	1.83	0.43
1:F:176:SER:O	1:F:178:GLY:N	2.51	0.43
1:F:406:ASP:O	1:F:409:LEU:HG	2.19	0.43
1:J:167:SER:HA	1:J:387:VAL:CG1	2.49	0.43
1:K:21:SER:OG	1:K:466:GLN:NE2	2.41	0.43
1:K:197:GLY:HA3	1:K:371:GLN:HG2	2.00	0.43
1:K:252:LEU:HD22	1:K:268:VAL:HG11	2.01	0.43
1:L:324:LYS:HG2	1:L:336:ALA:HA	2.01	0.43
1:L:424:ASN:O	1:L:427:LYS:HG2	2.19	0.43
1:N:145:THR:HB	1:O:103:SER:OG	2.18	0.43
1:O:25:LEU:O	1:O:29:LEU:HD23	2.19	0.43
1:O:162:GLN:NE2	1:O:163:ASN:OD1	2.52	0.43
1:O:328:SER:HA	1:O:354:TYR:CD1	2.53	0.43
1:P:118:ALA:O	1:S:425:ARG:NH1	2.52	0.43
1:Q:442:ASN:O	1:Q:446:ARG:HD2	2.19	0.43
1:R:125:ARG:HH21	1:R:126:ILE:HG12	1.84	0.43
1:S:381:ALA:HB2	1:T:267:GLY:HA3	2.00	0.43
1:T:423:GLN:O	1:T:427:LYS:HG2	2.18	0.43
1:U:19:ASN:O	1:U:22:SER:OG	2.32	0.43
1:W:138:LEU:HG	1:W:165:SER:OG	2.18	0.43
1:W:258:VAL:HG13	1:W:307:VAL:HG12	2.01	0.43
1:X:232:LEU:HD11	1:X:357:LEU:HD12	2.01	0.43
1:Z:55:SER:HA	1:Z:58:ILE:HG22	2.00	0.43
1:a:253:ASN:HD22	1:a:266:ALA:HB1	1.83	0.43
1:a:296:VAL:HG23	1:a:296:VAL:O	2.18	0.43
1:b:15:GLN:NE2	1:f:453:ALA:O	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:d:472:ILE:O	1:d:475:GLN:HG2	2.19	0.43
1:B:86:THR:HG21	1:B:416:ARG:HH11	1.84	0.43
1:C:15:GLN:O	1:C:18:LEU:HG	2.19	0.43
1:C:84:GLN:HA	1:C:87:ASN:HD22	1.83	0.43
1:C:177:ASN:HD21	1:C:355:VAL:H	1.67	0.43
1:D:21:SER:CB	1:D:466:GLN:HE22	2.31	0.43
1:F:38:ILE:HG13	1:F:38:ILE:O	2.19	0.43
1:H:112:LEU:HD23	1:H:112:LEU:HA	1.93	0.43
1:H:263:VAL:HG22	1:H:285:LEU:HD21	2.00	0.43
1:J:222:ALA:HA	1:J:225:MET:HE2	2.01	0.43
1:J:237:ARG:NH1	1:J:399:GLN:HE22	2.17	0.43
1:K:238:THR:HG23	1:K:353:GLY:N	2.34	0.43
1:M:359:SER:HB2	1:M:363:TYR:HB3	2.00	0.43
1:M:425:ARG:O	1:M:429:THR:HG22	2.19	0.43
1:N:401:ALA:HA	1:N:404:VAL:HG22	2.00	0.43
1:P:20:ALA:HA	1:P:23:ASN:HD22	1.82	0.43
1:P:278:LEU:O	1:P:282:SER:N	2.52	0.43
1:Q:37:ARG:HG3	1:Q:38:ILE:H	1.83	0.43
1:Q:56:ASN:HA	1:R:90:GLN:HE22	1.84	0.43
1:Q:76:GLN:HG3	1:T:439:ASN:ND2	2.33	0.43
1:Q:241:THR:O	1:Q:323:VAL:HG23	2.19	0.43
1:Q:281:ASN:O	1:Q:285:LEU:HG	2.19	0.43
1:U:231:ASN:O	1:U:360:PRO:HD2	2.19	0.43
1:W:66:ARG:NH2	1:Z:446:ARG:O	2.47	0.43
1:W:208:LYS:HD3	1:W:208:LYS:HA	1.87	0.43
1:X:167:SER:C	1:X:169:ILE:N	2.77	0.43
1:Y:257:THR:HB	1:Y:308:LYS:HD2	2.01	0.43
1:a:202:VAL:HB	1:a:364:SER:HB3	1.99	0.43
1:b:258:VAL:HG22	1:b:307:VAL:HG23	2.01	0.43
1:c:259:GLY:N	1:c:305:GLU:OE1	2.52	0.43
1:f:208:LYS:NZ	1:f:209:ASN:O	2.47	0.43
1:g:62:ASN:O	1:g:66:ARG:HG2	2.19	0.43
1:A:328:SER:HA	1:A:354:TYR:CD1	2.54	0.43
1:C:79:GLU:HG3	1:C:83:GLN:NE2	2.33	0.43
1:E:8:ASN:OD1	1:E:9:ILE:N	2.50	0.43
1:E:172:TYR:CD1	1:E:384:LYS:HE3	2.54	0.43
1:E:419:LEU:HA	1:E:422:VAL:HG12	2.00	0.43
1:G:257:THR:HA	1:G:262:THR:HA	2.01	0.43
1:I:357:LEU:HD23	1:I:376:PHE:CZ	2.51	0.43
1:J:328:SER:HA	1:J:354:TYR:CD1	2.54	0.43
1:K:30:GLN:O	1:K:34:THR:HG22	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:102:GLY:O	1:L:103:SER:OG	2.33	0.43
1:P:278:LEU:HD23	1:P:278:LEU:HA	1.91	0.43
1:R:176:SER:O	1:R:178:GLY:N	2.52	0.43
1:R:247:VAL:HG11	1:R:269:THR:HG22	2.01	0.43
1:S:124:THR:O	1:S:127:SER:OG	2.30	0.43
1:T:66:ARG:HH22	1:V:37:ARG:HD3	1.84	0.43
1:U:29:LEU:O	1:U:33:THR:HG22	2.18	0.43
1:U:268:VAL:HG22	1:U:277:GLN:HE22	1.84	0.43
1:V:15:GLN:HG3	1:Z:453:ALA:HB1	2.01	0.43
1:V:444:ARG:HA	1:V:447:ILE:HG22	2.00	0.43
1:a:329:ASP:OD1	1:a:330:GLY:N	2.52	0.43
1:a:424:ASN:O	1:a:427:LYS:HG2	2.19	0.43
1:a:478:GLN:HB3	1:a:481:GLN:HE21	1.83	0.43
1:b:197:GLY:O	1:b:212:ILE:N	2.51	0.43
1:e:258:VAL:HG22	1:e:307:VAL:HG23	2.01	0.43
1:f:168:ALA:HB2	1:f:386:SER:H	1.84	0.43
1:A:90:GLN:NE2	1:B:59:SER:OG	2.52	0.42
1:A:126:ILE:HG23	1:D:432:ASN:ND2	2.34	0.42
1:A:154:TYR:H	1:C:399:GLN:NE2	2.17	0.42
1:A:237:ARG:NH2	1:B:154:TYR:HB3	2.34	0.42
1:C:401:ALA:O	1:C:405:VAL:HG22	2.18	0.42
1:D:145:THR:HB	1:E:103:SER:HB2	2.00	0.42
1:D:291:ILE:HA	1:D:297:LEU:HA	2.01	0.42
1:E:221:ILE:O	1:E:225:MET:HG2	2.19	0.42
1:F:231:ASN:O	1:F:360:PRO:HD2	2.19	0.42
1:G:357:LEU:HD23	1:G:376:PHE:HZ	1.83	0.42
1:J:439:ASN:HA	1:J:442:ASN:ND2	2.33	0.42
1:K:252:LEU:HD23	1:K:252:LEU:O	2.18	0.42
1:L:93:ARG:HB2	1:L:405:VAL:HG21	2.01	0.42
1:L:156:THR:OG1	1:L:157:ILE:N	2.52	0.42
1:M:483:VAL:HG12	1:M:484:LEU:HD22	2.01	0.42
1:N:163:ASN:OD1	1:N:164:ALA:N	2.51	0.42
1:O:66:ARG:NH2	1:Q:446:ARG:O	2.49	0.42
1:O:137:LEU:HD12	1:O:138:LEU:N	2.34	0.42
1:P:33:THR:HG21	1:S:14:THR:HG22	2.00	0.42
1:Q:120:GLN:O	1:Q:124:THR:HG23	2.19	0.42
1:Q:125:ARG:HD3	1:T:157:ILE:HD11	2.01	0.42
1:W:356:GLN:NE2	1:W:358:ASN:OD1	2.52	0.42
1:X:92:ILE:HA	1:X:95:LEU:HG	2.00	0.42
1:Z:137:LEU:HD23	1:Z:138:LEU:N	2.34	0.42
1:Z:144:THR:HB	1:a:290:SER:OG	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:167:SER:O	1:c:169:ILE:HG22	2.19	0.42
1:f:23:ASN:HA	1:f:26:ASN:ND2	2.34	0.42
1:g:208:LYS:HE3	1:g:228:ALA:HB1	2.00	0.42
1:A:17:ASN:ND2	1:g:33:THR:O	2.52	0.42
1:A:66:ARG:HA	1:A:69:ASN:ND2	2.34	0.42
1:A:481:GLN:O	1:A:485:SER:OG	2.28	0.42
1:B:61:LEU:HD21	1:B:433:LEU:O	2.19	0.42
1:B:427:LYS:O	1:B:430:ILE:HG22	2.20	0.42
1:B:444:ARG:HA	1:B:447:ILE:HG22	2.01	0.42
1:D:104:ASN:ND2	1:F:135:ARG:HH21	2.17	0.42
1:E:132:PHE:CE1	1:H:54:LEU:HD21	2.54	0.42
1:H:268:VAL:HG22	1:H:277:GLN:HE22	1.83	0.42
1:I:137:LEU:HB3	1:I:161:LEU:HD21	2.00	0.42
1:K:33:THR:HG23	1:N:17:ASN:HD22	1.84	0.42
1:M:232:LEU:HD11	1:M:357:LEU:HD12	2.01	0.42
1:Q:167:SER:C	1:Q:169:ILE:H	2.26	0.42
1:Q:173:GLN:OE1	1:Q:362:ALA:HA	2.19	0.42
1:T:59:SER:HB2	1:U:94:ASP:OD1	2.19	0.42
1:U:439:ASN:HA	1:U:442:ASN:ND2	2.34	0.42
1:V:239:VAL:HG13	1:V:300:THR:HG22	2.01	0.42
1:W:77:THR:HA	1:Z:439:ASN:ND2	2.33	0.42
1:W:447:ILE:HG23	1:W:448:LYS:HG2	2.00	0.42
1:Y:239:VAL:HG13	1:Y:300:THR:HG22	2.01	0.42
1:Z:231:ASN:O	1:Z:360:PRO:HD2	2.19	0.42
1:Z:401:ALA:O	1:Z:405:VAL:HG13	2.19	0.42
1:a:123:LEU:HA	1:a:126:ILE:HG12	2.00	0.42
1:d:78:ALA:O	1:d:82:LEU:HD23	2.18	0.42
1:e:88:ILE:HG23	1:e:119:GLN:NE2	2.34	0.42
1:g:6:ASN:HB3	1:g:484:LEU:HD21	2.00	0.42
1:g:288:THR:HB	1:g:300:THR:HB	2.01	0.42
1:A:261:ASN:HB2	1:A:284:LYS:HE2	2.01	0.42
1:A:291:ILE:HB	1:A:297:LEU:HD13	2.01	0.42
1:B:253:ASN:ND2	1:B:267:GLY:H	2.17	0.42
1:C:357:LEU:HD23	1:C:376:PHE:HZ	1.83	0.42
1:D:125:ARG:NH1	1:D:129:THR:OG1	2.53	0.42
1:F:67:ASN:HA	1:F:70:ASP:OD2	2.19	0.42
1:I:248:THR:OG1	1:I:317:THR:OG1	2.31	0.42
1:I:248:THR:HG1	1:I:317:THR:HG1	1.61	0.42
1:I:285:LEU:HD12	1:I:285:LEU:O	2.19	0.42
1:I:292:ASN:ND2	1:I:294:LYS:HB2	2.34	0.42
1:J:148:GLN:NE2	1:J:152:ASN:O	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:188:THR:HA	1:K:337:LYS:HZ1	1.84	0.42
1:L:95:LEU:O	1:L:99:SER:HB3	2.18	0.42
1:P:401:ALA:HA	1:P:404:VAL:HG12	2.02	0.42
1:U:25:LEU:HD23	1:U:466:GLN:HG3	2.02	0.42
1:U:237:ARG:HB2	1:U:354:TYR:CE2	2.54	0.42
1:W:188:THR:HB	1:W:337:LYS:NZ	2.35	0.42
1:W:200:ASN:N	1:W:366:SER:O	2.53	0.42
1:W:481:GLN:HA	1:a:464:VAL:CG2	2.49	0.42
1:X:409:LEU:HD23	1:X:409:LEU:HA	1.92	0.42
1:b:74:LEU:HD11	1:b:135:ARG:HH12	1.84	0.42
1:c:201:LEU:HD23	1:c:229:ILE:HG13	2.00	0.42
1:d:409:LEU:O	1:d:412:ILE:HG22	2.18	0.42
1:f:57:GLN:O	1:f:61:LEU:HG	2.20	0.42
1:f:328:SER:HA	1:f:354:TYR:CD1	2.53	0.42
1:A:61:LEU:O	1:A:65:THR:HG23	2.19	0.42
1:B:113:GLN:HA	1:B:116:VAL:HG22	2.01	0.42
1:B:258:VAL:HG23	1:B:258:VAL:O	2.19	0.42
1:C:29:LEU:O	1:C:33:THR:HG22	2.19	0.42
1:D:190:THR:HA	1:D:348:THR:HG22	2.02	0.42
1:E:240:PHE:HB3	1:E:325:VAL:HG22	2.00	0.42
1:F:95:LEU:HD13	1:F:116:VAL:HG12	2.00	0.42
1:H:468:ALA:O	1:H:472:ILE:HG12	2.19	0.42
1:I:235:ARG:HH22	1:I:237:ARG:HG2	1.84	0.42
1:J:189:ALA:HB1	1:J:348:THR:HB	2.01	0.42
1:K:52:ASN:O	1:K:56:ASN:ND2	2.53	0.42
1:K:122:GLU:O	1:K:126:ILE:HG13	2.19	0.42
1:K:135:ARG:HH21	1:L:104:ASN:HB3	1.84	0.42
1:L:108:ASP:OD2	1:N:53:ARG:NH2	2.49	0.42
1:L:427:LYS:O	1:L:430:ILE:HG22	2.19	0.42
1:N:460:SER:O	1:N:464:VAL:HG23	2.19	0.42
1:O:324:LYS:HE2	1:O:332:PHE:HE2	1.84	0.42
1:U:176:SER:O	1:U:178:GLY:N	2.52	0.42
1:V:478:GLN:OE1	1:V:481:GLN:NE2	2.52	0.42
1:Z:147:PHE:N	1:Z:157:ILE:O	2.50	0.42
1:a:84:GLN:HA	1:a:87:ASN:HD22	1.83	0.42
1:b:102:GLY:O	1:b:103:SER:OG	2.35	0.42
1:b:252:LEU:HD23	1:b:252:LEU:HA	1.90	0.42
1:c:106:ASP:O	1:c:109:ARG:HG3	2.19	0.42
1:d:125:ARG:CZ	1:g:429:THR:HG23	2.49	0.42
1:e:233:SER:O	1:e:357:LEU:HB2	2.19	0.42
1:f:80:GLY:O	1:f:83:GLN:HG3	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:391:ASP:OD1	1:f:392:ILE:N	2.50	0.42
1:g:111:ALA:O	1:g:114:LYS:HG2	2.20	0.42
1:A:125:ARG:CZ	1:D:429:THR:HG23	2.48	0.42
1:A:129:THR:HG22	1:A:129:THR:O	2.19	0.42
1:B:291:ILE:HB	1:B:297:LEU:HD13	2.01	0.42
1:B:325:VAL:HG22	1:B:351:VAL:HG13	2.01	0.42
1:B:421:ALA:HB2	1:f:115:GLU:OE1	2.19	0.42
1:I:55:SER:HA	1:I:58:ILE:HG22	2.02	0.42
1:I:232:LEU:HD12	1:I:357:LEU:HD12	2.01	0.42
1:J:29:LEU:O	1:J:33:THR:HG22	2.19	0.42
1:L:190:THR:C	1:L:348:THR:HA	2.44	0.42
1:N:355:VAL:O	1:N:355:VAL:HG12	2.20	0.42
1:O:74:LEU:O	1:O:77:THR:OG1	2.34	0.42
1:O:373:SER:HA	1:O:377:GLY:HA2	2.01	0.42
1:S:78:ALA:O	1:S:82:LEU:HD23	2.20	0.42
1:S:141:SER:HB2	1:T:293:ASP:CG	2.44	0.42
1:V:237:ARG:HH12	1:V:399:GLN:HE22	1.68	0.42
1:V:357:LEU:HD23	1:V:376:PHE:CZ	2.55	0.42
1:Y:201:LEU:HD21	1:Y:225:MET:HG3	2.02	0.42
1:Z:171:SER:HB3	1:Z:404:VAL:HG23	2.01	0.42
1:Z:185:VAL:HG22	1:Z:374:GLN:HB2	2.01	0.42
1:a:96:ALA:O	1:a:99:SER:OG	2.32	0.42
1:a:112:LEU:HD23	1:a:112:LEU:HA	1.85	0.42
1:b:301:SER:HB2	1:b:305:GLU:OE1	2.19	0.42
1:c:69:ASN:HA	1:c:72:ILE:HG22	2.02	0.42
1:c:419:LEU:O	1:c:423:GLN:HG3	2.19	0.42
1:d:219:LYS:NZ	1:d:305:GLU:HG3	2.34	0.42
1:B:158:ASP:OD2	1:B:158:ASP:N	2.53	0.42
1:B:241:THR:HG23	1:B:297:LEU:O	2.20	0.42
1:D:95:LEU:HD11	1:D:112:LEU:HD22	2.01	0.42
1:I:97:LEU:HG	1:I:402:ILE:HD11	2.02	0.42
1:M:201:LEU:HD23	1:M:229:ILE:HG13	2.01	0.42
1:M:456:THR:O	1:M:459:LEU:HG	2.19	0.42
1:M:481:GLN:HA	1:P:464:VAL:HG22	2.02	0.42
1:N:56:ASN:HB3	1:O:93:ARG:NH1	2.34	0.42
1:Q:39:ASN:OD1	1:Q:40:SER:N	2.52	0.42
1:S:236:ALA:HB1	1:S:304:GLY:HA3	2.02	0.42
1:T:356:GLN:HE22	1:T:358:ASN:HB3	1.83	0.42
1:X:193:GLY:HA2	1:X:350:ILE:HD11	2.02	0.42
1:Y:463:GLN:HE22	1:Y:467:GLN:HE21	1.66	0.42
1:b:49:GLN:OE1	1:c:413:ASP:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:328:SER:HA	1:c:354:TYR:CD1	2.54	0.42
1:d:473:LEU:HD23	1:d:473:LEU:HA	1.81	0.42
1:e:23:ASN:O	1:e:27:THR:HG23	2.19	0.42
1:e:269:THR:OG1	1:e:273:ASP:OD2	2.36	0.42
1:f:54:LEU:O	1:f:58:ILE:HG12	2.19	0.42
1:A:25:LEU:O	1:A:29:LEU:HD23	2.19	0.42
1:C:54:LEU:O	1:C:58:ILE:HG23	2.20	0.42
1:E:96:ALA:O	1:E:99:SER:OG	2.27	0.42
1:E:173:GLN:HA	1:E:363:TYR:HE1	1.85	0.42
1:E:427:LYS:HA	1:E:430:ILE:HG22	2.02	0.42
1:F:15:GLN:O	1:F:18:LEU:HG	2.20	0.42
1:F:112:LEU:O	1:F:116:VAL:HG13	2.20	0.42
1:J:150:GLY:HA3	1:J:155:GLU:HG3	2.00	0.42
1:J:162:GLN:NE2	1:J:163:ASN:OD1	2.53	0.42
1:J:256:VAL:O	1:J:263:VAL:N	2.35	0.42
1:L:161:LEU:HD12	1:L:162:GLN:H	1.84	0.42
1:N:282:SER:HB2	1:N:287:ILE:O	2.19	0.42
1:N:376:PHE:HB3	1:N:379:ALA:HB3	2.01	0.42
1:O:108:ASP:OD2	1:P:49:GLN:HG2	2.20	0.42
1:P:367:GLY:HA3	1:P:372:ALA:HB2	2.01	0.42
1:Q:285:LEU:HD13	1:Q:287:ILE:HG23	2.01	0.42
1:R:21:SER:OG	1:R:466:GLN:NE2	2.44	0.42
1:S:52:ASN:O	1:S:56:ASN:ND2	2.52	0.42
1:T:169:ILE:O	1:T:169:ILE:HG12	2.19	0.42
1:V:166:ALA:HB3	1:V:169:ILE:HD11	2.01	0.42
1:X:22:SER:O	1:X:26:ASN:ND2	2.52	0.42
1:X:237:ARG:HG3	1:X:239:VAL:HG23	2.01	0.42
1:Z:177:ASN:HD21	1:Z:327:GLY:HA3	1.85	0.42
1:a:429:THR:O	1:a:433:LEU:HD23	2.20	0.42
1:b:55:SER:HA	1:b:58:ILE:HG22	2.01	0.42
1:f:394:THR:HG23	1:f:395:ALA:N	2.34	0.42
1:g:30:GLN:HA	1:g:33:THR:HG22	2.02	0.42
1:g:392:ILE:HD12	1:g:398:ALA:HA	2.00	0.42
1:g:464:VAL:O	1:g:467:GLN:HG2	2.19	0.42
1:D:429:THR:HG22	1:D:433:LEU:HD13	2.01	0.42
1:E:339:VAL:HG23	1:E:349:THR:HA	2.02	0.42
1:H:8:ASN:HD21	1:I:445:SER:HB3	1.84	0.42
1:H:25:LEU:O	1:H:29:LEU:HD23	2.20	0.42
1:H:83:GLN:O	1:H:86:THR:OG1	2.33	0.42
1:I:78:ALA:O	1:I:82:LEU:HD23	2.20	0.42
1:J:481:GLN:HA	1:N:464:VAL:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:127:SER:O	1:L:139:ASP:HB2	2.20	0.42
1:L:322:ALA:HB1	1:L:336:ALA:HB1	2.01	0.42
1:L:401:ALA:O	1:L:405:VAL:HG13	2.19	0.42
1:N:258:VAL:HG22	1:N:307:VAL:HG12	2.00	0.42
1:N:312:GLN:HG2	1:N:342:ALA:HA	2.01	0.42
1:O:424:ASN:O	1:O:427:LYS:HG2	2.20	0.42
1:P:23:ASN:O	1:P:27:THR:HG23	2.20	0.42
1:T:124:THR:O	1:T:127:SER:OG	2.33	0.42
1:X:423:GLN:O	1:X:427:LYS:HG2	2.19	0.42
1:Y:59:SER:HA	1:Y:62:ASN:HD21	1.85	0.42
1:Y:288:THR:OG1	1:Y:300:THR:OG1	2.33	0.42
1:Y:291:ILE:HD12	1:Y:297:LEU:HB2	2.02	0.42
1:a:247:VAL:HG11	1:a:269:THR:HA	2.00	0.42
1:g:272:GLN:NE2	1:g:276:ASP:OD1	2.53	0.42
1:B:392:ILE:HA	1:B:397:GLY:HA3	2.01	0.42
1:B:429:THR:O	1:B:433:LEU:HD23	2.20	0.42
1:B:467:GLN:HA	1:B:470:THR:HG22	2.02	0.42
1:C:82:LEU:HD12	1:C:412:ILE:HG23	2.02	0.42
1:C:253:ASN:HD22	1:C:266:ALA:HB1	1.84	0.42
1:D:235:ARG:HH12	1:D:237:ARG:HB2	1.85	0.42
1:D:438:GLU:OE1	1:F:16:ARG:NH2	2.52	0.42
1:G:12:LEU:HB2	1:H:438:GLU:OE1	2.19	0.42
1:G:126:ILE:HG23	1:J:432:ASN:ND2	2.35	0.42
1:I:328:SER:HA	1:I:354:TYR:CD1	2.54	0.42
1:J:238:THR:HB	1:J:301:SER:OG	2.20	0.42
1:M:184:SER:OG	1:M:185:VAL:N	2.51	0.42
1:M:445:SER:O	1:M:449:ASP:N	2.51	0.42
1:P:290:SER:O	1:P:298:THR:OG1	2.26	0.42
1:R:25:LEU:O	1:R:29:LEU:HD23	2.19	0.42
1:R:384:LYS:HA	1:R:384:LYS:HE3	2.00	0.42
1:S:219:LYS:HZ1	1:S:305:GLU:HA	1.84	0.42
1:T:40:SER:O	1:U:416:ARG:NH2	2.52	0.42
1:U:447:ILE:HG23	1:U:448:LYS:HG2	2.02	0.42
1:W:74:LEU:O	1:W:77:THR:OG1	2.32	0.42
1:W:83:GLN:O	1:W:86:THR:OG1	2.38	0.42
1:X:433:LEU:HD12	1:X:433:LEU:HA	1.77	0.42
1:Y:54:LEU:O	1:Y:58:ILE:HG12	2.20	0.42
1:Y:168:ALA:C	1:Y:170:GLY:N	2.78	0.42
1:Z:79:GLU:HG3	1:Z:83:GLN:NE2	2.31	0.42
1:a:91:ARG:HA	1:a:91:ARG:HD2	1.84	0.42
1:a:200:ASN:N	1:a:366:SER:O	2.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:480:PRO:HA	1:a:483:VAL:HG12	2.02	0.42
1:c:77:THR:HA	1:f:439:ASN:HD22	1.85	0.42
1:c:112:LEU:HD23	1:c:112:LEU:HA	1.84	0.42
1:c:167:SER:C	1:c:169:ILE:N	2.78	0.42
1:c:387:VAL:HG23	1:c:404:VAL:HG11	2.01	0.42
1:e:86:THR:HG21	1:e:416:ARG:HH11	1.85	0.42
1:f:78:ALA:O	1:f:82:LEU:HD13	2.19	0.42
1:f:419:LEU:HA	1:f:422:VAL:HG22	2.01	0.42
1:g:219:LYS:HE2	1:g:305:GLU:HA	2.02	0.42
1:A:425:ARG:O	1:A:429:THR:OG1	2.27	0.42
1:A:473:LEU:HD21	1:E:453:ALA:O	2.20	0.42
1:D:88:ILE:HD11	1:G:428:ASN:HB3	2.01	0.42
1:E:392:ILE:HD12	1:E:398:ALA:HA	2.01	0.42
1:I:15:GLN:O	1:I:18:LEU:HG	2.20	0.42
1:J:101:ASN:HB3	1:J:106:ASP:HB3	2.01	0.42
1:K:55:SER:HA	1:K:58:ILE:HG12	2.02	0.42
1:K:118:ALA:O	1:N:425:ARG:NH1	2.53	0.42
1:M:18:LEU:HD21	1:M:469:GLY:HA3	2.01	0.42
1:N:167:SER:O	1:N:167:SER:OG	2.35	0.42
1:S:146:SER:HA	1:S:158:ASP:HA	2.01	0.42
1:U:208:LYS:HD3	1:U:208:LYS:HA	1.84	0.42
1:W:77:THR:HG22	1:Z:439:ASN:HB3	2.01	0.42
1:W:265:LEU:HD23	1:W:265:LEU:HA	1.89	0.42
1:X:33:THR:HG21	1:a:14:THR:HG22	2.02	0.42
1:Y:145:THR:OG1	1:Y:146:SER:N	2.52	0.42
1:Z:8:ASN:ND2	1:a:445:SER:HB3	2.30	0.42
1:Z:481:GLN:HA	1:c:464:VAL:HG22	2.01	0.42
1:a:23:ASN:O	1:a:27:THR:HG23	2.20	0.42
1:b:231:ASN:O	1:b:360:PRO:HD2	2.19	0.42
1:d:176:SER:OG	1:d:328:SER:OG	2.28	0.42
1:d:265:LEU:HD21	1:d:281:ASN:ND2	2.34	0.42
1:e:200:ASN:N	1:e:366:SER:O	2.53	0.42
1:f:8:ASN:HD21	1:g:445:SER:HB3	1.85	0.42
1:A:66:ARG:HH22	1:D:37:ARG:HD3	1.84	0.41
1:D:82:LEU:HD12	1:D:412:ILE:HG23	2.00	0.41
1:D:259:GLY:N	1:D:305:GLU:OE1	2.53	0.41
1:E:200:ASN:N	1:E:366:SER:O	2.52	0.41
1:G:33:THR:HG21	1:J:14:THR:HG22	2.02	0.41
1:H:401:ALA:O	1:H:405:VAL:HG12	2.19	0.41
1:H:401:ALA:HA	1:H:404:VAL:HG22	2.01	0.41
1:I:84:GLN:HA	1:I:87:ASN:HD22	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:410:ALA:HA	1:I:413:ASP:OD2	2.20	0.41
1:J:32:LEU:HD21	1:J:455:GLU:HB3	2.02	0.41
1:J:167:SER:C	1:J:169:ILE:H	2.28	0.41
1:M:16:ARG:NH2	1:N:435:ASN:HA	2.35	0.41
1:O:74:LEU:HD13	1:O:147:PHE:HZ	1.85	0.41
1:O:405:VAL:HA	1:O:408:ALA:HB3	2.02	0.41
1:P:326:GLN:HB3	1:P:332:PHE:CD2	2.55	0.41
1:Q:401:ALA:O	1:Q:404:VAL:HG22	2.19	0.41
1:T:29:LEU:O	1:T:33:THR:HG22	2.19	0.41
1:T:172:TYR:CE2	1:T:174:VAL:HG22	2.55	0.41
1:U:55:SER:HA	1:U:58:ILE:HG22	2.01	0.41
1:U:231:ASN:O	1:U:359:SER:OG	2.31	0.41
1:V:156:THR:OG1	1:V:157:ILE:N	2.53	0.41
1:Z:83:GLN:O	1:Z:87:ASN:ND2	2.53	0.41
1:e:56:ASN:HA	1:f:90:GLN:HE22	1.84	0.41
1:f:52:ASN:O	1:f:56:ASN:ND2	2.53	0.41
1:f:173:GLN:OE1	1:f:362:ALA:HA	2.20	0.41
1:g:100:ALA:O	1:g:103:SER:N	2.47	0.41
1:g:455:GLU:OE1	1:g:455:GLU:N	2.53	0.41
1:A:104:ASN:HB3	1:B:135:ARG:HE	1.85	0.41
1:B:6:ASN:HB3	1:B:484:LEU:HD21	2.02	0.41
1:C:464:VAL:O	1:C:467:GLN:HG2	2.21	0.41
1:F:445:SER:HA	1:F:449:ASP:OD2	2.20	0.41
1:H:59:SER:O	1:H:63:VAL:HG12	2.20	0.41
1:H:122:GLU:O	1:H:126:ILE:HG13	2.20	0.41
1:I:66:ARG:HH21	1:L:447:ILE:HA	1.85	0.41
1:I:112:LEU:HD21	1:K:46:ALA:HB2	2.02	0.41
1:K:148:GLN:HA	1:K:156:THR:HA	2.01	0.41
1:N:48:LEU:HD21	1:O:416:ARG:CZ	2.50	0.41
1:N:84:GLN:HG3	1:P:432:ASN:HA	2.02	0.41
1:N:424:ASN:O	1:N:427:LYS:HG2	2.20	0.41
1:P:55:SER:HA	1:P:58:ILE:HG12	2.02	0.41
1:Q:109:ARG:HA	1:Q:112:LEU:HB2	2.02	0.41
1:Q:172:TYR:HB3	1:Q:407:ASN:HB2	2.02	0.41
1:Q:419:LEU:HA	1:Q:422:VAL:HG12	2.02	0.41
1:R:297:LEU:HB3	1:R:299:ILE:HD12	2.01	0.41
1:S:39:ASN:OD1	1:S:40:SER:N	2.53	0.41
1:S:174:VAL:HG11	1:S:179:ALA:HB2	2.02	0.41
1:T:82:LEU:HD12	1:T:419:LEU:HD12	2.02	0.41
1:U:197:GLY:O	1:U:212:ILE:N	2.53	0.41
1:W:40:SER:HB2	1:X:83:GLN:NE2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:424:ASN:O	1:W:427:LYS:HG2	2.20	0.41
1:a:257:THR:N	1:a:308:LYS:O	2.46	0.41
1:a:281:ASN:O	1:a:285:LEU:HG	2.21	0.41
1:b:177:ASN:HD21	1:b:327:GLY:HA3	1.84	0.41
1:c:244:VAL:N	1:c:271:THR:HG22	2.34	0.41
1:d:22:SER:O	1:d:26:ASN:ND2	2.53	0.41
1:d:406:ASP:O	1:d:409:LEU:HG	2.19	0.41
1:e:268:VAL:HG22	1:e:277:GLN:NE2	2.32	0.41
1:f:18:LEU:HD23	1:f:18:LEU:HA	1.92	0.41
1:f:172:TYR:CD1	1:f:404:VAL:HA	2.55	0.41
1:g:360:PRO:HB3	1:g:407:ASN:O	2.21	0.41
1:g:412:ILE:O	1:g:416:ARG:HG3	2.21	0.41
1:A:104:ASN:ND2	1:B:135:ARG:HE	2.18	0.41
1:B:424:ASN:HA	1:B:427:LYS:HD3	2.03	0.41
1:I:160:SER:O	1:I:160:SER:OG	2.35	0.41
1:J:237:ARG:HB3	1:J:354:TYR:CZ	2.55	0.41
1:M:68:ALA:HB3	1:M:430:ILE:HD13	2.02	0.41
1:M:328:SER:HA	1:M:354:TYR:CD1	2.55	0.41
1:P:125:ARG:NH2	1:P:126:ILE:HG12	2.35	0.41
1:Q:86:THR:HG21	1:Q:416:ARG:HH11	1.85	0.41
1:R:132:PHE:HA	1:U:57:GLN:HE22	1.85	0.41
1:R:145:THR:OG1	1:R:146:SER:N	2.52	0.41
1:S:200:ASN:N	1:S:366:SER:O	2.52	0.41
1:S:257:THR:O	1:S:308:LYS:N	2.47	0.41
1:S:401:ALA:HA	1:S:404:VAL:HG12	2.01	0.41
1:V:167:SER:HA	1:V:387:VAL:HG12	2.02	0.41
1:V:232:LEU:HD12	1:V:357:LEU:HD12	2.02	0.41
1:W:392:ILE:HD12	1:W:398:ALA:HA	2.01	0.41
1:X:396:ASP:OD2	1:X:396:ASP:N	2.52	0.41
1:Z:239:VAL:HG22	1:Z:300:THR:HG23	2.02	0.41
1:d:84:GLN:HG3	1:g:432:ASN:HA	2.03	0.41
1:d:261:ASN:HB3	1:d:284:LYS:HD3	2.03	0.41
1:g:48:LEU:HG	1:g:52:ASN:HD21	1.85	0.41
1:g:189:ALA:HB2	1:g:351:VAL:HG22	2.02	0.41
1:g:444:ARG:HA	1:g:447:ILE:HG22	2.00	0.41
1:g:469:GLY:HA2	1:g:472:ILE:HG22	2.02	0.41
1:A:290:SER:N	1:A:298:THR:O	2.53	0.41
1:B:68:ALA:O	1:B:72:ILE:HG23	2.20	0.41
1:B:483:VAL:HG13	1:B:484:LEU:HD22	2.01	0.41
1:B:488:ARG:HH22	1:D:467:GLN:HG3	1.84	0.41
1:D:420:ALA:HB2	1:F:42:LYS:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:159:ILE:HG12	1:F:422:VAL:HG21	2.01	0.41
1:F:360:PRO:HB3	1:F:407:ASN:O	2.20	0.41
1:F:464:VAL:O	1:F:467:GLN:HG3	2.21	0.41
1:G:177:ASN:HA	1:G:376:PHE:HA	2.01	0.41
1:H:174:VAL:HG13	1:H:175:GLY:H	1.85	0.41
1:I:138:LEU:HD23	1:I:138:LEU:H	1.85	0.41
1:I:386:SER:HB2	1:I:389:SER:OG	2.21	0.41
1:K:328:SER:HB3	1:K:356:GLN:HB2	2.02	0.41
1:L:221:ILE:O	1:L:225:MET:HG2	2.21	0.41
1:M:420:ALA:HA	1:M:423:GLN:HG2	2.02	0.41
1:N:238:THR:HG23	1:N:353:GLY:N	2.35	0.41
1:S:9:ILE:HD11	1:S:480:PRO:HG3	2.03	0.41
1:S:278:LEU:O	1:S:282:SER:OG	2.31	0.41
1:V:239:VAL:HG22	1:V:300:THR:HB	2.02	0.41
1:W:171:SER:HB2	1:W:404:VAL:HA	2.02	0.41
1:W:257:THR:HA	1:W:262:THR:HG23	2.03	0.41
1:Y:339:VAL:HG12	1:Y:348:THR:O	2.20	0.41
1:Z:154:TYR:HB3	1:a:237:ARG:NH2	2.36	0.41
1:Z:225:MET:HE2	1:Z:225:MET:HB3	1.96	0.41
1:b:135:ARG:HH21	1:c:104:ASN:HD22	1.68	0.41
1:b:145:THR:HB	1:c:103:SER:OG	2.21	0.41
1:b:312:GLN:NE2	1:b:343:GLY:O	2.53	0.41
1:c:386:SER:HB2	1:c:389:SER:OG	2.20	0.41
1:f:38:ILE:HG13	1:f:448:LYS:HD2	2.03	0.41
1:f:261:ASN:OD1	1:f:262:THR:N	2.52	0.41
1:f:393:SER:OG	1:f:394:THR:N	2.54	0.41
1:f:487:LEU:HD23	1:f:487:LEU:HA	1.95	0.41
1:A:24:ASP:CG	1:A:462:ASN:HD21	2.27	0.41
1:A:88:ILE:HG21	1:A:123:LEU:HB2	2.02	0.41
1:B:133:GLY:HA2	1:F:53:ARG:HD2	2.02	0.41
1:C:275:ALA:O	1:C:279:ASN:ND2	2.35	0.41
1:F:308:LYS:HG3	1:F:350:ILE:HG12	2.02	0.41
1:G:85:SER:O	1:G:89:LEU:HD23	2.21	0.41
1:G:167:SER:HA	1:G:387:VAL:CG1	2.50	0.41
1:I:275:ALA:O	1:I:279:ASN:ND2	2.32	0.41
1:I:322:ALA:HB1	1:I:336:ALA:HB1	2.02	0.41
1:I:429:THR:O	1:I:433:LEU:HB2	2.21	0.41
1:J:9:ILE:HD11	1:J:480:PRO:HG3	2.02	0.41
1:L:77:THR:HA	1:O:439:ASN:HD22	1.85	0.41
1:L:381:ALA:HB1	1:L:383:GLN:NE2	2.36	0.41
1:M:177:ASN:ND2	1:M:355:VAL:O	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:468:ALA:O	1:M:472:ILE:HG12	2.20	0.41
1:N:106:ASP:C	1:N:109:ARG:HH21	2.28	0.41
1:N:401:ALA:O	1:N:405:VAL:HG12	2.21	0.41
1:O:292:ASN:ND2	1:O:294:LYS:HB2	2.35	0.41
1:P:252:LEU:HD23	1:P:252:LEU:HA	1.94	0.41
1:T:168:ALA:C	1:T:170:GLY:N	2.77	0.41
1:W:231:ASN:O	1:W:360:PRO:HD2	2.19	0.41
1:W:429:THR:O	1:W:433:LEU:HD23	2.20	0.41
1:X:66:ARG:NH2	1:a:446:ARG:O	2.53	0.41
1:X:168:ALA:C	1:X:170:GLY:N	2.78	0.41
1:X:328:SER:HA	1:X:354:TYR:CD1	2.54	0.41
1:Z:200:ASN:N	1:Z:366:SER:O	2.52	0.41
1:Z:447:ILE:HG23	1:Z:448:LYS:HG2	2.02	0.41
1:b:59:SER:HB2	1:c:94:ASP:OD1	2.20	0.41
1:c:285:LEU:O	1:c:285:LEU:HD12	2.20	0.41
1:d:73:SER:O	1:d:77:THR:HG23	2.20	0.41
1:e:142:PHE:N	1:f:293:ASP:OD2	2.33	0.41
1:e:172:TYR:CD1	1:e:384:LYS:HD3	2.56	0.41
1:f:279:ASN:O	1:f:282:SER:OG	2.31	0.41
1:A:390:VAL:HG22	1:A:404:VAL:HG21	2.02	0.41
1:D:125:ARG:CZ	1:G:429:THR:HG23	2.50	0.41
1:G:112:LEU:HD23	1:G:112:LEU:HA	1.91	0.41
1:H:176:SER:O	1:H:178:GLY:N	2.53	0.41
1:I:239:VAL:HB	1:I:326:GLN:HB3	2.03	0.41
1:J:16:ARG:NH2	1:K:435:ASN:HA	2.36	0.41
1:L:219:LYS:HD2	1:L:305:GLU:HA	2.02	0.41
1:M:184:SER:HB3	1:M:374:GLN:HA	2.02	0.41
1:R:57:GLN:O	1:R:61:LEU:HG	2.20	0.41
1:R:272:GLN:NE2	1:R:276:ASP:OD1	2.53	0.41
1:W:169:ILE:O	1:W:387:VAL:HG12	2.20	0.41
1:W:189:ALA:HB3	1:W:337:LYS:HE3	2.03	0.41
1:X:126:ILE:HG23	1:a:432:ASN:ND2	2.35	0.41
1:Z:361:THR:OG1	1:Z:362:ALA:N	2.54	0.41
1:a:86:THR:HG21	1:a:416:ARG:HH11	1.85	0.41
1:b:39:ASN:OD1	1:b:40:SER:N	2.53	0.41
1:b:401:ALA:HA	1:b:404:VAL:HG12	2.03	0.41
1:c:73:SER:HB2	1:f:443:ALA:HB2	2.02	0.41
1:c:287:ILE:HG23	1:c:301:SER:HB3	2.02	0.41
1:d:100:ALA:O	1:d:103:SER:N	2.46	0.41
1:e:74:LEU:HD11	1:e:135:ARG:HH12	1.84	0.41
1:f:479:LEU:O	1:f:483:VAL:HG22	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:229:ILE:HG21	1:A:363:TYR:CE1	2.55	0.41
1:A:312:GLN:OE1	1:A:342:ALA:HA	2.20	0.41
1:B:33:THR:HG23	1:F:17:ASN:ND2	2.35	0.41
1:B:394:THR:HG23	1:B:395:ALA:N	2.36	0.41
1:C:38:ILE:HG23	1:C:44:ASP:HB2	2.02	0.41
1:C:125:ARG:NH2	1:E:432:ASN:HD22	2.11	0.41
1:D:9:ILE:HD11	1:D:480:PRO:HG3	2.03	0.41
1:D:33:THR:HG21	1:G:14:THR:HG22	2.03	0.41
1:D:61:LEU:HD12	1:D:433:LEU:HG	2.02	0.41
1:D:330:GLY:C	1:D:331:LYS:HG3	2.46	0.41
1:E:31:ARG:NE	1:E:37:ARG:O	2.53	0.41
1:G:7:THR:HG22	1:H:449:ASP:OD1	2.20	0.41
1:G:396:ASP:N	1:G:396:ASP:OD1	2.52	0.41
1:H:424:ASN:HA	1:H:427:LYS:HZ3	1.85	0.41
1:I:92:ILE:HD13	1:I:95:LEU:HD21	2.03	0.41
1:J:273:ASP:O	1:J:277:GLN:HG2	2.21	0.41
1:J:308:LYS:NZ	1:J:310:GLY:HA2	2.35	0.41
1:K:154:TYR:CG	1:L:399:GLN:HG2	2.56	0.41
1:M:337:LYS:HB2	1:M:337:LYS:HE2	1.87	0.41
1:N:360:PRO:HB2	1:N:411:ALA:HB2	2.02	0.41
1:O:172:TYR:CD1	1:O:404:VAL:HG13	2.56	0.41
1:Q:82:LEU:O	1:Q:86:THR:HG23	2.20	0.41
1:S:450:THR:HG23	1:S:452:PHE:HD1	1.85	0.41
1:T:58:ILE:HD11	1:T:444:ARG:HH11	1.85	0.41
1:T:237:ARG:HA	1:T:237:ARG:HD3	1.89	0.41
1:U:484:LEU:O	1:U:488:ARG:NE	2.54	0.41
1:V:84:GLN:HA	1:V:87:ASN:ND2	2.35	0.41
1:Z:238:THR:HG23	1:Z:353:GLY:N	2.36	0.41
1:a:427:LYS:HA	1:a:430:ILE:HG12	2.01	0.41
1:b:30:GLN:HG3	1:e:13:ASN:HD22	1.86	0.41
1:b:171:SER:H	1:b:404:VAL:HG23	1.84	0.41
1:d:165:SER:HA	1:d:169:ILE:HD13	2.03	0.41
1:e:238:THR:HG23	1:e:353:GLY:N	2.36	0.41
1:g:176:SER:O	1:g:178:GLY:N	2.53	0.41
1:A:69:ASN:HB3	1:D:446:ARG:HD3	2.01	0.41
1:A:383:GLN:OE1	1:A:384:LYS:HG3	2.21	0.41
1:E:212:ILE:HA	1:E:224:LYS:HZ3	1.85	0.41
1:F:21:SER:HA	1:F:24:ASP:OD1	2.21	0.41
1:F:61:LEU:HB3	1:F:433:LEU:HD11	2.02	0.41
1:H:396:ASP:OD1	1:H:397:GLY:N	2.54	0.41
1:H:408:ALA:O	1:H:412:ILE:HG12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:167:SER:C	1:I:169:ILE:N	2.77	0.41
1:J:152:ASN:HB2	1:J:155:GLU:CD	2.46	0.41
1:K:6:ASN:HB3	1:K:484:LEU:HD21	2.02	0.41
1:K:109:ARG:HA	1:K:112:LEU:HB2	2.01	0.41
1:L:172:TYR:CZ	1:L:174:VAL:HG22	2.55	0.41
1:L:444:ARG:O	1:L:448:LYS:HB2	2.20	0.41
1:M:291:ILE:HA	1:M:297:LEU:HA	2.02	0.41
1:N:73:SER:O	1:N:77:THR:HG23	2.20	0.41
1:O:260:SER:OG	1:O:261:ASN:N	2.53	0.41
1:Q:328:SER:HA	1:Q:354:TYR:CD1	2.56	0.41
1:R:121:ALA:HB1	1:U:425:ARG:HH22	1.86	0.41
1:R:447:ILE:HG23	1:R:448:LYS:HG2	2.02	0.41
1:S:162:GLN:NE2	1:S:163:ASN:OD1	2.53	0.41
1:W:74:LEU:HD11	1:W:135:ARG:NH1	2.33	0.41
1:W:116:VAL:HG11	1:W:390:VAL:HG21	2.03	0.41
1:W:480:PRO:HA	1:W:483:VAL:HG12	2.01	0.41
1:X:287:ILE:HG23	1:X:301:SER:HB3	2.02	0.41
1:Z:444:ARG:O	1:Z:448:LYS:HB2	2.20	0.41
1:Z:484:LEU:HB3	1:Z:488:ARG:HH21	1.84	0.41
1:c:427:LYS:O	1:c:430:ILE:HG13	2.21	0.41
1:f:167:SER:C	1:f:169:ILE:N	2.79	0.41
1:f:201:LEU:O	1:f:207:VAL:HA	2.21	0.41
1:f:253:ASN:HD22	1:f:266:ALA:HB1	1.86	0.41
1:A:149:VAL:HG21	1:A:429:THR:HG21	2.02	0.41
1:B:126:ILE:HG23	1:F:432:ASN:HD21	1.86	0.41
1:B:261:ASN:HB2	1:B:284:LYS:NZ	2.36	0.41
1:B:432:ASN:ND2	1:f:126:ILE:HG23	2.35	0.41
1:C:126:ILE:HG23	1:E:432:ASN:ND2	2.36	0.41
1:C:383:GLN:OE1	1:C:384:LYS:HG3	2.20	0.41
1:D:78:ALA:HB2	1:D:137:LEU:HD21	2.03	0.41
1:D:388:ALA:HB1	1:H:284:LYS:HA	2.03	0.41
1:E:231:ASN:O	1:E:360:PRO:HD2	2.21	0.41
1:F:268:VAL:HG22	1:F:277:GLN:HE22	1.85	0.41
1:F:431:ASP:O	1:F:435:ASN:ND2	2.35	0.41
1:F:469:GLY:HA2	1:F:472:ILE:HG22	2.03	0.41
1:G:49:GLN:HE21	1:G:53:ARG:NE	2.19	0.41
1:G:82:LEU:HA	1:G:85:SER:OG	2.21	0.41
1:G:200:ASN:N	1:G:366:SER:O	2.48	0.41
1:G:360:PRO:HA	1:G:407:ASN:HB3	2.03	0.41
1:H:240:PHE:HB3	1:H:325:VAL:HG22	2.03	0.41
1:I:38:ILE:O	1:I:38:ILE:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:174:VAL:N	1:I:382:ALA:O	2.51	0.41
1:J:7:THR:HG23	1:J:8:ASN:ND2	2.35	0.41
1:J:25:LEU:CD1	1:J:466:GLN:HG3	2.51	0.41
1:J:82:LEU:O	1:J:85:SER:OG	2.28	0.41
1:J:84:GLN:HG3	1:M:432:ASN:HA	2.03	0.41
1:K:432:ASN:O	1:K:436:ILE:HG22	2.20	0.41
1:L:112:LEU:HD23	1:L:112:LEU:HA	1.84	0.41
1:M:68:ALA:O	1:M:72:ILE:HG23	2.21	0.41
1:N:74:LEU:HD11	1:N:135:ARG:NH1	2.35	0.41
1:N:89:LEU:HD23	1:N:92:ILE:HD12	2.03	0.41
1:N:229:ILE:HD13	1:N:229:ILE:HA	1.95	0.41
1:N:244:VAL:HG13	1:N:252:LEU:HD12	2.03	0.41
1:O:88:ILE:HG21	1:O:123:LEU:HB2	2.03	0.41
1:O:177:ASN:ND2	1:O:328:SER:HB3	2.35	0.41
1:O:468:ALA:O	1:O:472:ILE:HG12	2.20	0.41
1:Q:6:ASN:O	1:U:461:LYS:HG3	2.21	0.41
1:R:38:ILE:O	1:R:38:ILE:HG13	2.21	0.41
1:R:125:ARG:NH1	1:R:129:THR:OG1	2.53	0.41
1:S:364:SER:HA	1:S:381:ALA:HA	2.03	0.41
1:S:401:ALA:O	1:S:405:VAL:HG13	2.21	0.41
1:T:281:ASN:O	1:T:285:LEU:HG	2.21	0.41
1:T:396:ASP:HB2	1:T:400:ASN:ND2	2.36	0.41
1:U:22:SER:O	1:U:25:LEU:HG	2.20	0.41
1:U:240:PHE:HB3	1:U:325:VAL:HG12	2.02	0.41
1:U:308:LYS:HE3	1:U:308:LYS:HB3	1.91	0.41
1:U:308:LYS:NZ	1:U:350:ILE:HG12	2.35	0.41
1:V:184:SER:OG	1:V:185:VAL:N	2.51	0.41
1:W:92:ILE:HD13	1:W:92:ILE:HA	1.98	0.41
1:W:149:VAL:HG21	1:W:429:THR:HG21	2.03	0.41
1:W:176:SER:O	1:W:178:GLY:N	2.54	0.41
1:Y:83:GLN:NE2	1:Y:87:ASN:OD1	2.53	0.41
1:Y:429:THR:O	1:Y:433:LEU:HD23	2.21	0.41
1:Z:174:VAL:HG13	1:Z:175:GLY:H	1.85	0.41
1:a:245:SER:HG	1:a:320:GLN:H	1.68	0.41
1:b:23:ASN:HA	1:b:26:ASN:HD22	1.85	0.41
1:c:169:ILE:HG12	1:c:169:ILE:O	2.21	0.41
1:e:176:SER:O	1:e:178:GLY:N	2.54	0.41
1:e:208:LYS:HA	1:e:208:LYS:HD3	1.89	0.41
1:e:237:ARG:HB2	1:e:354:TYR:CE2	2.55	0.41
1:e:238:THR:HA	1:e:353:GLY:HA3	2.03	0.41
1:e:274:LEU:HA	1:e:274:LEU:HD12	1.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:381:ALA:HB2	1:f:267:GLY:HA3	2.02	0.41
1:e:401:ALA:O	1:e:405:VAL:HG13	2.21	0.41
1:g:115:GLU:O	1:g:119:GLN:HG2	2.20	0.41
1:g:252:LEU:HD23	1:g:252:LEU:O	2.20	0.41
1:g:268:VAL:HG22	1:g:277:GLN:NE2	2.35	0.41
1:A:392:ILE:HA	1:A:392:ILE:HD13	1.92	0.41
1:C:88:ILE:HG21	1:C:123:LEU:HD13	2.03	0.41
1:C:188:THR:HA	1:C:325:VAL:HG21	2.03	0.41
1:C:384:LYS:HE2	1:C:384:LYS:HB2	1.83	0.41
1:D:167:SER:C	1:D:169:ILE:N	2.77	0.41
1:E:106:ASP:HB3	1:E:108:ASP:OD2	2.20	0.41
1:E:366:SER:OG	1:E:367:GLY:N	2.54	0.41
1:G:423:GLN:HB3	1:G:427:LYS:NZ	2.36	0.41
1:H:99:SER:O	1:H:101:ASN:ND2	2.53	0.41
1:I:225:MET:HE1	1:I:355:VAL:HG21	2.03	0.41
1:I:291:ILE:HA	1:I:297:LEU:HA	2.03	0.41
1:I:480:PRO:O	1:I:484:LEU:HD23	2.20	0.41
1:K:53:ARG:HA	1:K:56:ASN:HD22	1.85	0.41
1:M:74:LEU:HD11	1:M:135:ARG:HH12	1.85	0.41
1:N:358:ASN:HB3	1:N:407:ASN:HD21	1.86	0.41
1:P:112:LEU:HD23	1:P:112:LEU:HA	1.93	0.41
1:R:54:LEU:HD13	1:R:444:ARG:HB2	2.03	0.41
1:R:73:SER:O	1:R:77:THR:HG23	2.20	0.41
1:T:18:LEU:O	1:T:466:GLN:NE2	2.54	0.41
1:V:167:SER:C	1:V:169:ILE:H	2.29	0.41
1:V:292:ASN:ND2	1:V:294:LYS:HB3	2.35	0.41
1:W:49:GLN:HA	1:X:413:ASP:OD1	2.20	0.41
1:X:124:THR:O	1:X:127:SER:OG	2.31	0.41
1:a:74:LEU:HG	1:a:137:LEU:HD21	2.02	0.41
1:b:470:THR:HG21	1:e:483:VAL:HG23	2.03	0.41
1:c:245:SER:HG	1:c:320:GLN:H	1.68	0.41
1:d:238:THR:HG23	1:d:353:GLY:N	2.36	0.41
1:g:238:THR:HG23	1:g:353:GLY:N	2.36	0.41
1:C:258:VAL:HG23	1:C:258:VAL:O	2.20	0.40
1:F:15:GLN:HA	1:F:18:LEU:HG	2.03	0.40
1:F:442:ASN:HB3	1:F:446:ARG:NH1	2.36	0.40
1:H:11:SER:O	1:H:14:THR:OG1	2.34	0.40
1:H:252:LEU:O	1:H:252:LEU:HG	2.20	0.40
1:I:190:THR:HA	1:I:348:THR:HG22	2.03	0.40
1:I:241:THR:O	1:I:323:VAL:HG23	2.21	0.40
1:J:396:ASP:HB2	1:J:400:ASN:ND2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:324:LYS:HB2	1:L:332:PHE:CE2	2.56	0.40
1:L:460:SER:O	1:L:464:VAL:HG22	2.22	0.40
1:M:256:VAL:O	1:M:263:VAL:N	2.40	0.40
1:N:257:THR:HB	1:N:308:LYS:HE3	2.02	0.40
1:N:479:LEU:O	1:N:483:VAL:HG12	2.21	0.40
1:O:88:ILE:HD11	1:Q:428:ASN:CG	2.46	0.40
1:Q:167:SER:C	1:Q:169:ILE:N	2.78	0.40
1:S:7:THR:HG21	1:T:36:TYR:HE1	1.86	0.40
1:S:18:LEU:HD21	1:S:469:GLY:HA3	2.01	0.40
1:S:231:ASN:O	1:S:360:PRO:HD2	2.21	0.40
1:S:238:THR:HG23	1:S:353:GLY:N	2.36	0.40
1:S:240:PHE:HB3	1:S:325:VAL:HG22	2.02	0.40
1:S:268:VAL:HG22	1:S:277:GLN:NE2	2.36	0.40
1:X:34:THR:HA	1:a:17:ASN:HD21	1.86	0.40
1:X:167:SER:O	1:X:169:ILE:HG22	2.21	0.40
1:X:208:LYS:HG3	1:X:228:ALA:HB1	2.03	0.40
1:Z:9:ILE:HG22	1:Z:11:SER:H	1.87	0.40
1:a:76:GLN:O	1:a:79:GLU:HG2	2.21	0.40
1:a:100:ALA:O	1:a:103:SER:N	2.45	0.40
1:d:202:VAL:HG13	1:d:207:VAL:HG22	2.02	0.40
1:d:387:VAL:O	1:d:387:VAL:HG13	2.22	0.40
1:d:456:THR:O	1:d:459:LEU:HG	2.21	0.40
1:d:472:ILE:HA	1:d:475:GLN:CD	2.46	0.40
1:e:39:ASN:OD1	1:e:40:SER:N	2.54	0.40
1:e:360:PRO:HB3	1:e:407:ASN:O	2.21	0.40
1:g:123:LEU:HA	1:g:126:ILE:HD12	2.02	0.40
1:A:109:ARG:HB2	1:A:393:SER:HA	2.03	0.40
1:B:138:LEU:HD12	1:B:165:SER:HB3	2.02	0.40
1:B:467:GLN:HG3	1:e:488:ARG:NH2	2.36	0.40
1:C:325:VAL:N	1:C:333:GLU:OE1	2.49	0.40
1:C:357:LEU:HD23	1:C:376:PHE:CZ	2.56	0.40
1:C:475:GLN:HA	1:C:478:GLN:NE2	2.35	0.40
1:D:61:LEU:CD1	1:D:433:LEU:HG	2.50	0.40
1:D:329:ASP:OD1	1:D:330:GLY:N	2.54	0.40
1:E:18:LEU:HD21	1:E:469:GLY:HA3	2.02	0.40
1:H:84:GLN:HA	1:H:87:ASN:HD22	1.86	0.40
1:I:283:SER:OG	1:I:284:LYS:N	2.55	0.40
1:J:433:LEU:HA	1:J:436:ILE:HG22	2.03	0.40
1:K:39:ASN:OD1	1:K:40:SER:N	2.54	0.40
1:K:486:LEU:HD23	1:K:486:LEU:HA	1.97	0.40
1:L:109:ARG:HH11	1:L:394:THR:HG22	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:112:LEU:O	1:M:116:VAL:HG13	2.22	0.40
1:N:173:GLN:HA	1:N:363:TYR:CE1	2.53	0.40
1:N:450:THR:HG23	1:N:452:PHE:HD1	1.86	0.40
1:O:394:THR:HG23	1:O:395:ALA:H	1.87	0.40
1:P:101:ASN:O	1:P:105:SER:OG	2.35	0.40
1:S:49:GLN:HA	1:T:413:ASP:OD2	2.20	0.40
1:S:136:LYS:HB3	1:S:136:LYS:HE2	1.79	0.40
1:T:131:THR:HA	1:T:136:LYS:HA	2.02	0.40
1:W:268:VAL:HG22	1:W:277:GLN:NE2	2.37	0.40
1:X:50:ILE:O	1:X:53:ARG:HG2	2.22	0.40
1:X:219:LYS:HD3	1:X:303:THR:HB	2.03	0.40
1:Z:125:ARG:CZ	1:b:429:THR:HG23	2.51	0.40
1:a:78:ALA:O	1:a:82:LEU:HD23	2.21	0.40
1:a:148:GLN:HG3	1:a:155:GLU:O	2.22	0.40
1:a:455:GLU:OE2	1:a:455:GLU:N	2.54	0.40
1:a:460:SER:O	1:a:463:GLN:HG2	2.22	0.40
1:d:464:VAL:O	1:d:467:GLN:HG2	2.21	0.40
1:e:18:LEU:HD21	1:e:469:GLY:HA3	2.03	0.40
1:f:93:ARG:HB2	1:f:405:VAL:HG21	2.03	0.40
1:f:450:THR:HG23	1:f:452:PHE:HD2	1.85	0.40
1:g:218:ALA:HB3	1:g:304:GLY:O	2.21	0.40
1:A:74:LEU:HD11	1:A:135:ARG:HH12	1.86	0.40
1:A:452:PHE:HA	1:A:455:GLU:HB2	2.02	0.40
1:B:33:THR:HG23	1:F:17:ASN:HD22	1.86	0.40
1:C:68:ALA:O	1:C:72:ILE:HG23	2.21	0.40
1:C:148:GLN:NE2	1:C:152:ASN:O	2.55	0.40
1:D:84:GLN:HG3	1:G:432:ASN:OD1	2.21	0.40
1:D:131:THR:HA	1:D:136:LYS:HA	2.03	0.40
1:D:235:ARG:NH1	1:D:237:ARG:HB2	2.35	0.40
1:E:32:LEU:HD23	1:H:472:ILE:HD11	2.02	0.40
1:E:384:LYS:C	1:E:386:SER:H	2.29	0.40
1:F:89:LEU:HD23	1:F:89:LEU:HA	1.92	0.40
1:G:97:LEU:HD23	1:G:97:LEU:HA	1.97	0.40
1:G:386:SER:HB2	1:G:389:SER:OG	2.21	0.40
1:H:447:ILE:HD12	1:H:447:ILE:HA	1.95	0.40
1:J:23:ASN:O	1:J:27:THR:HG23	2.21	0.40
1:J:329:ASP:OD1	1:J:330:GLY:N	2.54	0.40
1:K:357:LEU:O	1:K:358:ASN:ND2	2.54	0.40
1:L:131:THR:HA	1:L:136:LYS:HA	2.04	0.40
1:O:160:SER:OG	1:O:418:ASP:OD2	2.33	0.40
1:P:487:LEU:HD23	1:P:487:LEU:HA	1.95	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:299:ILE:HD12	1:R:299:ILE:H	1.87	0.40
1:T:68:ALA:O	1:T:72:ILE:HG23	2.21	0.40
1:T:329:ASP:OD1	1:T:330:GLY:N	2.55	0.40
1:U:104:ASN:HA	1:U:109:ARG:HH22	1.86	0.40
1:Y:388:ALA:HB1	1:b:284:LYS:HA	2.03	0.40
1:Z:7:THR:HG22	1:a:449:ASP:OD1	2.21	0.40
1:Z:25:LEU:O	1:Z:29:LEU:HD23	2.20	0.40
1:Z:301:SER:HB2	1:Z:305:GLU:OE1	2.20	0.40
1:a:18:LEU:HD12	1:a:473:LEU:HD11	2.04	0.40
1:a:172:TYR:CZ	1:a:174:VAL:HG22	2.56	0.40
1:b:460:SER:O	1:b:464:VAL:HG23	2.21	0.40
1:c:73:SER:O	1:c:77:THR:HG23	2.21	0.40
1:c:470:THR:HB	1:f:486:LEU:CD1	2.48	0.40
1:d:177:ASN:HD21	1:d:327:GLY:HA3	1.87	0.40
1:e:7:THR:HG22	1:f:449:ASP:OD1	2.21	0.40
1:e:62:ASN:O	1:e:66:ARG:HG2	2.21	0.40
1:e:112:LEU:O	1:e:116:VAL:HG23	2.22	0.40
1:e:202:VAL:HG13	1:e:207:VAL:HG22	2.04	0.40
1:f:172:TYR:HE1	1:f:404:VAL:HG22	1.85	0.40
1:f:173:GLN:N	1:f:359:SER:O	2.54	0.40
1:A:244:VAL:HG22	1:A:321:VAL:HG22	2.04	0.40
1:A:247:VAL:HG11	1:A:269:THR:HA	2.04	0.40
1:C:112:LEU:HD23	1:C:112:LEU:HA	1.91	0.40
1:C:261:ASN:HB2	1:C:284:LYS:HE2	2.02	0.40
1:C:394:THR:HG23	1:C:395:ALA:N	2.36	0.40
1:C:470:THR:O	1:C:473:LEU:HG	2.21	0.40
1:D:125:ARG:HD3	1:G:157:ILE:HD11	2.04	0.40
1:D:483:VAL:O	1:D:487:LEU:HB2	2.20	0.40
1:F:173:GLN:HG2	1:F:358:ASN:HA	2.02	0.40
1:G:320:GLN:HB2	1:G:338:ASN:HD22	1.85	0.40
1:H:113:GLN:NE2	1:H:392:ILE:H	2.18	0.40
1:H:138:LEU:HD12	1:H:165:SER:HB3	2.03	0.40
1:I:9:ILE:HG22	1:I:11:SER:H	1.86	0.40
1:I:255:ASP:O	1:I:310:GLY:N	2.44	0.40
1:I:393:SER:OG	1:I:394:THR:N	2.52	0.40
1:J:29:LEU:HD12	1:M:472:ILE:HG23	2.04	0.40
1:K:25:LEU:O	1:K:29:LEU:HD23	2.21	0.40
1:K:100:ALA:O	1:K:103:SER:N	2.42	0.40
1:L:263:VAL:HG13	1:L:281:ASN:ND2	2.36	0.40
1:L:308:LYS:NZ	1:L:310:GLY:HA2	2.37	0.40
1:M:430:ILE:HD12	1:M:430:ILE:HA	1.95	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:77:THR:HG22	1:Q:439:ASN:HB3	2.04	0.40
1:P:7:THR:HG23	1:T:461:LYS:HZ3	1.86	0.40
1:P:42:LYS:HB2	1:Q:420:ALA:HB2	2.04	0.40
1:T:167:SER:O	1:T:169:ILE:HG22	2.21	0.40
1:T:173:GLN:OE1	1:T:362:ALA:HA	2.21	0.40
1:V:386:SER:HB2	1:V:389:SER:OG	2.21	0.40
1:X:95:LEU:HA	1:X:98:GLN:HG3	2.02	0.40
1:Y:18:LEU:HD21	1:Y:469:GLY:HA3	2.03	0.40
1:Y:138:LEU:O	1:Y:164:ALA:HA	2.21	0.40
1:Z:9:ILE:HD11	1:Z:480:PRO:HG3	2.04	0.40
1:Z:442:ASN:HB3	1:Z:446:ARG:NH1	2.37	0.40
1:b:30:GLN:O	1:b:34:THR:HG22	2.21	0.40
1:c:37:ARG:HB3	1:c:450:THR:HA	2.03	0.40
1:e:49:GLN:O	1:e:53:ARG:HG2	2.22	0.40
1:e:244:VAL:HA	1:e:321:VAL:HG12	2.03	0.40
1:f:177:ASN:HD22	1:f:328:SER:HB3	1.86	0.40
1:B:15:GLN:HE21	1:D:454:ALA:HA	1.87	0.40
1:C:427:LYS:O	1:C:430:ILE:HG22	2.22	0.40
1:D:135:ARG:O	1:D:136:LYS:C	2.64	0.40
1:E:166:ALA:O	1:E:169:ILE:HG22	2.22	0.40
1:F:55:SER:HA	1:F:58:ILE:HG22	2.04	0.40
1:H:255:ASP:OD2	1:H:256:VAL:N	2.55	0.40
1:J:393:SER:OG	1:J:394:THR:HG23	2.21	0.40
1:K:82:LEU:HD23	1:K:82:LEU:HA	1.90	0.40
1:L:237:ARG:HA	1:L:237:ARG:HD3	1.89	0.40
1:L:464:VAL:HG12	1:L:467:GLN:HE21	1.86	0.40
1:N:240:PHE:HB3	1:N:325:VAL:HG22	2.03	0.40
1:N:419:LEU:HA	1:N:422:VAL:HG12	2.04	0.40
1:O:470:THR:HG22	1:Q:486:LEU:HD22	2.02	0.40
1:P:84:GLN:HG3	1:P:126:ILE:HD13	2.02	0.40
1:P:365:VAL:HG11	1:P:376:PHE:CD1	2.57	0.40
1:Q:131:THR:HB	1:Q:134:GLY:HA2	2.04	0.40
1:Q:184:SER:HB2	1:Q:373:SER:O	2.21	0.40
1:Q:339:VAL:HG12	1:Q:348:THR:O	2.21	0.40
1:Q:484:LEU:HB3	1:Q:488:ARG:HH21	1.86	0.40
1:R:66:ARG:NH1	1:R:66:ARG:HB2	2.37	0.40
1:R:125:ARG:NH2	1:R:126:ILE:HG12	2.36	0.40
1:S:220:ALA:O	1:S:224:LYS:HG3	2.22	0.40
1:T:229:ILE:HG13	1:T:363:TYR:HE1	1.87	0.40
1:T:396:ASP:HB2	1:T:400:ASN:HD22	1.86	0.40
1:T:419:LEU:HD23	1:T:419:LEU:HA	1.96	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:89:LEU:HA	1:U:89:LEU:HD23	1.91	0.40
1:U:254:PHE:HE1	1:U:268:VAL:HG21	1.86	0.40
1:V:426:PHE:HA	1:V:429:THR:HG22	2.04	0.40
1:X:169:ILE:O	1:X:169:ILE:HG12	2.21	0.40
1:Y:287:ILE:HG22	1:Y:301:SER:HB2	2.04	0.40
1:Z:179:ALA:HB3	1:Z:379:ALA:HB2	2.04	0.40
1:Z:429:THR:O	1:Z:433:LEU:HD23	2.22	0.40
1:a:255:ASP:O	1:a:310:GLY:N	2.48	0.40
1:a:383:GLN:CD	1:a:384:LYS:HE2	2.47	0.40
1:b:78:ALA:O	1:b:82:LEU:HD23	2.22	0.40
1:b:83:GLN:O	1:b:86:THR:OG1	2.32	0.40
1:b:360:PRO:HB3	1:b:407:ASN:O	2.20	0.40
1:d:392:ILE:HD12	1:d:398:ALA:HA	2.03	0.40
1:e:154:TYR:HB3	1:f:237:ARG:HH22	1.87	0.40
1:g:208:LYS:HD3	1:g:208:LYS:HA	1.92	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	483/484 (100%)	430 (89%)	51 (11%)	2 (0%)	30	66
1	B	483/484 (100%)	442 (92%)	39 (8%)	2 (0%)	30	66
1	C	483/484 (100%)	439 (91%)	42 (9%)	2 (0%)	30	66
1	D	483/484 (100%)	440 (91%)	40 (8%)	3 (1%)	21	58
1	E	483/484 (100%)	445 (92%)	38 (8%)	0	100	100
1	F	483/484 (100%)	447 (92%)	36 (8%)	0	100	100
1	G	483/484 (100%)	439 (91%)	41 (8%)	3 (1%)	21	58
1	H	483/484 (100%)	440 (91%)	43 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	I	483/484 (100%)	439 (91%)	41 (8%)	3 (1%)	21	58
1	J	483/484 (100%)	433 (90%)	47 (10%)	3 (1%)	21	58
1	K	483/484 (100%)	449 (93%)	34 (7%)	0	100	100
1	L	483/484 (100%)	435 (90%)	44 (9%)	4 (1%)	16	52
1	M	483/484 (100%)	438 (91%)	42 (9%)	3 (1%)	21	58
1	N	483/484 (100%)	444 (92%)	39 (8%)	0	100	100
1	O	483/484 (100%)	444 (92%)	36 (8%)	3 (1%)	21	58
1	P	483/484 (100%)	447 (92%)	36 (8%)	0	100	100
1	Q	483/484 (100%)	434 (90%)	45 (9%)	4 (1%)	16	52
1	R	483/484 (100%)	447 (92%)	36 (8%)	0	100	100
1	S	483/484 (100%)	452 (94%)	31 (6%)	0	100	100
1	T	483/484 (100%)	437 (90%)	43 (9%)	3 (1%)	21	58
1	U	483/484 (100%)	446 (92%)	37 (8%)	0	100	100
1	V	483/484 (100%)	438 (91%)	42 (9%)	3 (1%)	21	58
1	W	483/484 (100%)	440 (91%)	43 (9%)	0	100	100
1	X	483/484 (100%)	440 (91%)	40 (8%)	3 (1%)	21	58
1	Y	483/484 (100%)	441 (91%)	39 (8%)	3 (1%)	21	58
1	Z	483/484 (100%)	445 (92%)	38 (8%)	0	100	100
1	a	483/484 (100%)	439 (91%)	40 (8%)	4 (1%)	16	52
1	b	483/484 (100%)	444 (92%)	39 (8%)	0	100	100
1	c	483/484 (100%)	439 (91%)	40 (8%)	4 (1%)	16	52
1	d	483/484 (100%)	443 (92%)	40 (8%)	0	100	100
1	e	483/484 (100%)	441 (91%)	42 (9%)	0	100	100
1	f	483/484 (100%)	435 (90%)	45 (9%)	3 (1%)	21	58
1	g	483/484 (100%)	440 (91%)	43 (9%)	0	100	100
All	All	15939/15972 (100%)	14552 (91%)	1332 (8%)	55 (0%)	37	71

All (55) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	G	168	ALA
1	A	168	ALA
1	B	168	ALA

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Mol	Chain	Res	Type
1	C	168	ALA
1	D	168	ALA
1	I	168	ALA
1	J	168	ALA
1	J	169	ILE
1	L	168	ALA
1	M	168	ALA
1	O	168	ALA
1	Q	168	ALA
1	T	168	ALA
1	V	168	ALA
1	V	169	ILE
1	X	168	ALA
1	Y	168	ALA
1	a	168	ALA
1	c	168	ALA
1	f	168	ALA
1	B	167	SER
1	C	167	SER
1	D	167	SER
1	G	169	ILE
1	I	167	SER
1	I	169	ILE
1	J	167	SER
1	L	169	ILE
1	M	167	SER
1	O	167	SER
1	O	169	ILE
1	Q	167	SER
1	Q	169	ILE
1	T	167	SER
1	X	167	SER
1	Y	167	SER
1	Y	169	ILE
1	c	167	SER
1	f	167	SER
1	f	169	ILE
1	A	167	SER
1	D	169	ILE
1	G	167	SER
1	L	167	SER
1	M	169	ILE

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Mol	Chain	Res	Type
1	T	169	ILE
1	V	167	SER
1	X	169	ILE
1	a	167	SER
1	a	169	ILE
1	c	169	ILE
1	c	170	GLY
1	L	170	GLY
1	a	170	GLY
1	Q	170	GLY

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	361/360 (100%)	361 (100%)	0	100	100
1	B	361/360 (100%)	361 (100%)	0	100	100
1	C	361/360 (100%)	361 (100%)	0	100	100
1	D	361/360 (100%)	361 (100%)	0	100	100
1	E	361/360 (100%)	361 (100%)	0	100	100
1	F	361/360 (100%)	361 (100%)	0	100	100
1	G	361/360 (100%)	361 (100%)	0	100	100
1	H	361/360 (100%)	359 (99%)	2 (1%)	78	80
1	I	361/360 (100%)	361 (100%)	0	100	100
1	J	361/360 (100%)	361 (100%)	0	100	100
1	K	361/360 (100%)	361 (100%)	0	100	100
1	L	361/360 (100%)	361 (100%)	0	100	100
1	M	361/360 (100%)	361 (100%)	0	100	100
1	N	361/360 (100%)	361 (100%)	0	100	100
1	O	361/360 (100%)	361 (100%)	0	100	100
1	P	361/360 (100%)	361 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	Q	361/360 (100%)	361 (100%)	0	100	100
1	R	361/360 (100%)	361 (100%)	0	100	100
1	S	361/360 (100%)	361 (100%)	0	100	100
1	T	361/360 (100%)	361 (100%)	0	100	100
1	U	361/360 (100%)	361 (100%)	0	100	100
1	V	361/360 (100%)	361 (100%)	0	100	100
1	W	361/360 (100%)	361 (100%)	0	100	100
1	X	361/360 (100%)	361 (100%)	0	100	100
1	Y	361/360 (100%)	361 (100%)	0	100	100
1	Z	361/360 (100%)	361 (100%)	0	100	100
1	a	361/360 (100%)	361 (100%)	0	100	100
1	b	361/360 (100%)	361 (100%)	0	100	100
1	c	361/360 (100%)	361 (100%)	0	100	100
1	d	361/360 (100%)	359 (99%)	2 (1%)	78	80
1	e	361/360 (100%)	361 (100%)	0	100	100
1	f	361/360 (100%)	361 (100%)	0	100	100
1	g	361/360 (100%)	361 (100%)	0	100	100
All	All	11913/11880 (100%)	11909 (100%)	4 (0%)	100	100

All (4) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	H	243[A]	ASP
1	H	243[B]	ASP
1	d	243[A]	ASP
1	d	243[B]	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (423) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	17	ASN
1	A	69	ASN
1	A	90	GLN
1	A	101	ASN
1	A	162	GLN

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Mol	Chain	Res	Type
1	A	177	ASN
1	A	253	ASN
1	A	358	ASN
1	A	383	GLN
1	A	424	ASN
1	A	432	ASN
1	A	439	ASN
1	A	462	ASN
1	A	478	GLN
1	B	87	ASN
1	B	101	ASN
1	B	104	ASN
1	B	119	GLN
1	B	152	ASN
1	B	162	GLN
1	B	177	ASN
1	B	253	ASN
1	B	371	GLN
1	B	407	ASN
1	B	432	ASN
1	B	439	ASN
1	B	475	GLN
1	B	477	ASN
1	C	13	ASN
1	C	15	GLN
1	C	26	ASN
1	C	30	GLN
1	C	87	ASN
1	C	101	ASN
1	C	177	ASN
1	C	200	ASN
1	C	209	ASN
1	C	253	ASN
1	C	358	ASN
1	C	432	ASN
1	C	466	GLN
1	C	478	GLN
1	D	30	GLN
1	D	62	ASN
1	D	101	ASN
1	D	104	ASN
1	D	177	ASN

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Mol	Chain	Res	Type
1	D	253	ASN
1	D	272	GLN
1	D	277	GLN
1	D	306	ASN
1	D	326	GLN
1	D	378	ASN
1	D	432	ASN
1	D	439	ASN
1	D	463	GLN
1	D	466	GLN
1	D	467	GLN
1	E	23	ASN
1	E	30	GLN
1	E	52	ASN
1	E	62	ASN
1	E	90	GLN
1	E	162	GLN
1	E	177	ASN
1	E	200	ASN
1	E	231	ASN
1	E	424	ASN
1	E	432	ASN
1	E	439	ASN
1	E	475	GLN
1	F	17	ASN
1	F	23	ASN
1	F	56	ASN
1	F	62	ASN
1	F	104	ASN
1	F	231	ASN
1	F	277	GLN
1	F	292	ASN
1	F	432	ASN
1	G	8	ASN
1	G	17	ASN
1	G	23	ASN
1	G	49	GLN
1	G	56	ASN
1	G	101	ASN
1	G	152	ASN
1	G	177	ASN
1	G	253	ASN

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Mol	Chain	Res	Type
1	G	383	GLN
1	G	399	GLN
1	G	400	ASN
1	G	428	ASN
1	G	432	ASN
1	G	442	ASN
1	G	466	GLN
1	G	475	GLN
1	H	17	ASN
1	H	56	ASN
1	H	101	ASN
1	H	120	GLN
1	H	152	ASN
1	H	162	GLN
1	H	200	ASN
1	H	209	ASN
1	H	428	ASN
1	H	432	ASN
1	H	439	ASN
1	H	462	ASN
1	H	467	GLN
1	I	26	ASN
1	I	84	GLN
1	I	87	ASN
1	I	90	GLN
1	I	177	ASN
1	I	253	ASN
1	I	415	GLN
1	I	442	ASN
1	I	466	GLN
1	J	15	GLN
1	J	17	ASN
1	J	26	ASN
1	J	56	ASN
1	J	62	ASN
1	J	76	GLN
1	J	101	ASN
1	J	162	GLN
1	J	177	ASN
1	J	231	ASN
1	J	253	ASN
1	J	326	GLN

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Mol	Chain	Res	Type
1	J	383	GLN
1	J	399	GLN
1	J	400	ASN
1	J	432	ASN
1	J	442	ASN
1	J	463	GLN
1	J	475	GLN
1	J	481	GLN
1	K	17	ASN
1	K	49	GLN
1	K	56	ASN
1	K	83	GLN
1	K	87	ASN
1	K	120	GLN
1	K	152	ASN
1	K	200	ASN
1	K	277	GLN
1	K	358	ASN
1	K	428	ASN
1	K	432	ASN
1	K	467	GLN
1	L	15	GLN
1	L	17	ASN
1	L	19	ASN
1	L	23	ASN
1	L	30	GLN
1	L	83	GLN
1	L	87	ASN
1	L	120	GLN
1	L	152	ASN
1	L	231	ASN
1	L	253	ASN
1	L	277	GLN
1	L	326	GLN
1	L	383	GLN
1	L	415	GLN
1	L	424	ASN
1	L	439	ASN
1	L	463	GLN
1	L	466	GLN
1	M	8	ASN
1	M	17	ASN

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Mol	Chain	Res	Type
1	M	19	ASN
1	M	23	ASN
1	M	49	GLN
1	M	56	ASN
1	M	84	GLN
1	M	87	ASN
1	M	101	ASN
1	M	177	ASN
1	M	253	ASN
1	M	272	GLN
1	M	326	GLN
1	M	423	GLN
1	M	432	ASN
1	M	439	ASN
1	M	463	GLN
1	M	466	GLN
1	N	83	GLN
1	N	90	GLN
1	N	152	ASN
1	N	162	GLN
1	N	200	ASN
1	N	277	GLN
1	N	432	ASN
1	N	463	GLN
1	O	19	ASN
1	O	23	ASN
1	O	30	GLN
1	O	101	ASN
1	O	104	ASN
1	O	162	GLN
1	O	253	ASN
1	O	272	GLN
1	O	306	ASN
1	O	424	ASN
1	O	428	ASN
1	O	432	ASN
1	O	439	ASN
1	O	475	GLN
1	P	23	ASN
1	P	56	ASN
1	P	84	GLN
1	P	152	ASN

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Mol	Chain	Res	Type
1	P	200	ASN
1	P	277	GLN
1	P	281	ASN
1	P	428	ASN
1	P	432	ASN
1	P	439	ASN
1	P	442	ASN
1	Q	17	ASN
1	Q	23	ASN
1	Q	83	GLN
1	Q	84	GLN
1	Q	104	ASN
1	Q	177	ASN
1	Q	206	GLN
1	Q	253	ASN
1	Q	326	GLN
1	Q	432	ASN
1	Q	439	ASN
1	Q	466	GLN
1	R	30	GLN
1	R	87	ASN
1	R	90	GLN
1	R	104	ASN
1	R	200	ASN
1	R	272	GLN
1	R	277	GLN
1	R	312	GLN
1	R	467	GLN
1	R	478	GLN
1	S	15	GLN
1	S	30	GLN
1	S	56	ASN
1	S	87	ASN
1	S	101	ASN
1	S	162	GLN
1	S	277	GLN
1	S	279	ASN
1	S	407	ASN
1	S	432	ASN
1	T	19	ASN
1	T	177	ASN
1	T	253	ASN

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Mol	Chain	Res	Type
1	T	356	GLN
1	T	400	ASN
1	T	439	ASN
1	T	442	ASN
1	T	467	GLN
1	U	17	ASN
1	U	30	GLN
1	U	120	GLN
1	U	162	GLN
1	U	200	ASN
1	U	277	GLN
1	U	281	ASN
1	U	312	GLN
1	U	432	ASN
1	U	439	ASN
1	U	442	ASN
1	U	467	GLN
1	V	23	ASN
1	V	87	ASN
1	V	101	ASN
1	V	177	ASN
1	V	253	ASN
1	V	281	ASN
1	V	326	GLN
1	V	399	GLN
1	V	400	ASN
1	V	432	ASN
1	V	466	GLN
1	V	478	GLN
1	V	481	GLN
1	W	8	ASN
1	W	23	ASN
1	W	56	ASN
1	W	62	ASN
1	W	101	ASN
1	W	104	ASN
1	W	152	ASN
1	W	162	GLN
1	W	277	GLN
1	W	312	GLN
1	W	432	ASN
1	W	466	GLN

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Mol	Chain	Res	Type
1	X	26	ASN
1	X	87	ASN
1	X	90	GLN
1	X	177	ASN
1	X	253	ASN
1	X	277	GLN
1	X	281	ASN
1	X	326	GLN
1	X	356	GLN
1	X	383	GLN
1	X	435	ASN
1	X	466	GLN
1	X	467	GLN
1	Y	17	ASN
1	Y	23	ASN
1	Y	83	GLN
1	Y	87	ASN
1	Y	177	ASN
1	Y	253	ASN
1	Y	272	GLN
1	Y	277	GLN
1	Y	279	ASN
1	Y	326	GLN
1	Y	399	GLN
1	Y	463	GLN
1	Z	23	ASN
1	Z	30	GLN
1	Z	56	ASN
1	Z	83	GLN
1	Z	87	ASN
1	Z	200	ASN
1	Z	277	GLN
1	Z	432	ASN
1	Z	463	GLN
1	Z	466	GLN
1	Z	477	ASN
1	a	17	ASN
1	a	19	ASN
1	a	23	ASN
1	a	87	ASN
1	a	162	GLN
1	a	177	ASN

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Mol	Chain	Res	Type
1	a	253	ASN
1	a	272	GLN
1	a	277	GLN
1	a	428	ASN
1	a	432	ASN
1	a	439	ASN
1	b	23	ASN
1	b	26	ASN
1	b	56	ASN
1	b	69	ASN
1	b	87	ASN
1	b	101	ASN
1	b	120	GLN
1	b	200	ASN
1	b	281	ASN
1	b	292	ASN
1	b	432	ASN
1	b	439	ASN
1	b	466	GLN
1	b	467	GLN
1	c	19	ASN
1	c	90	GLN
1	c	162	GLN
1	c	177	ASN
1	c	253	ASN
1	c	277	GLN
1	c	400	ASN
1	c	442	ASN
1	d	19	ASN
1	d	26	ASN
1	d	30	GLN
1	d	90	GLN
1	d	101	ASN
1	d	200	ASN
1	d	261	ASN
1	d	312	GLN
1	d	415	GLN
1	d	462	ASN
1	d	463	GLN
1	e	19	ASN
1	e	23	ASN
1	e	26	ASN

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Mol	Chain	Res	Type
1	e	56	ASN
1	e	200	ASN
1	e	209	ASN
1	e	277	GLN
1	e	292	ASN
1	e	439	ASN
1	f	19	ASN
1	f	56	ASN
1	f	62	ASN
1	f	87	ASN
1	f	90	GLN
1	f	101	ASN
1	f	104	ASN
1	f	152	ASN
1	f	177	ASN
1	f	231	ASN
1	f	253	ASN
1	f	272	GLN
1	f	277	GLN
1	f	326	GLN
1	f	356	GLN
1	f	415	GLN
1	f	432	ASN
1	f	439	ASN
1	f	466	GLN
1	g	17	ASN
1	g	52	ASN
1	g	62	ASN
1	g	87	ASN
1	g	101	ASN
1	g	162	GLN
1	g	200	ASN
1	g	206	GLN
1	g	277	GLN
1	g	292	ASN
1	g	320	GLN
1	g	407	ASN
1	g	432	ASN
1	g	439	ASN
1	g	442	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

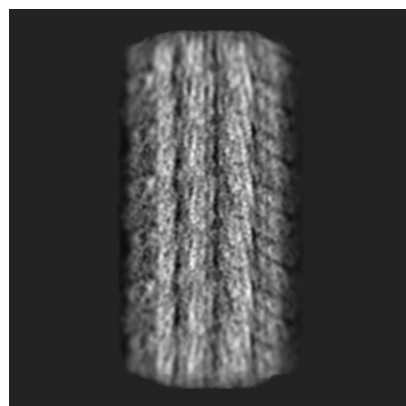
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-40765. These allow visual inspection of the internal detail of the map and identification of artifacts.

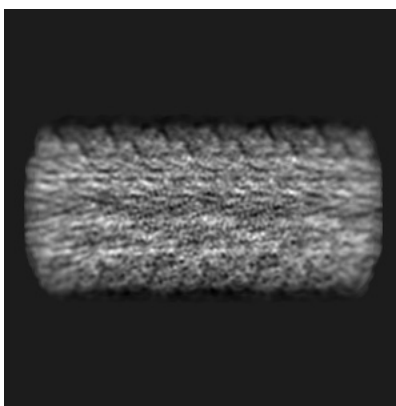
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

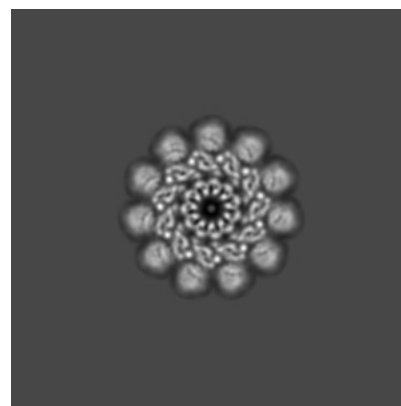
6.1.1 Primary map



X

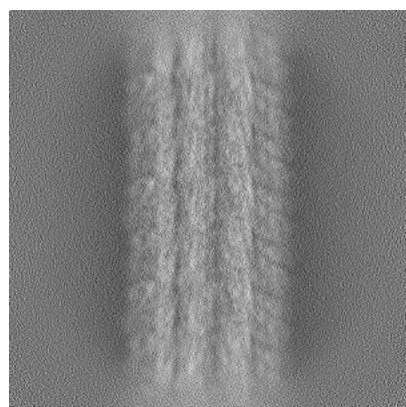


Y

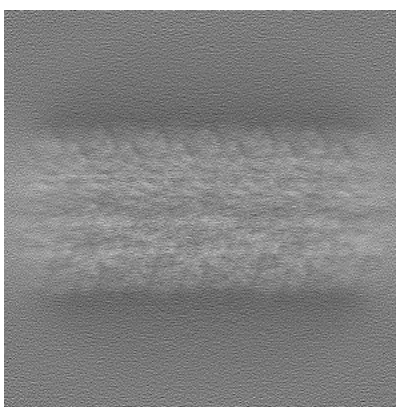


Z

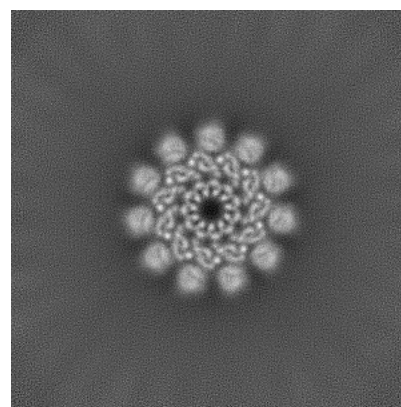
6.1.2 Raw map



X



Y

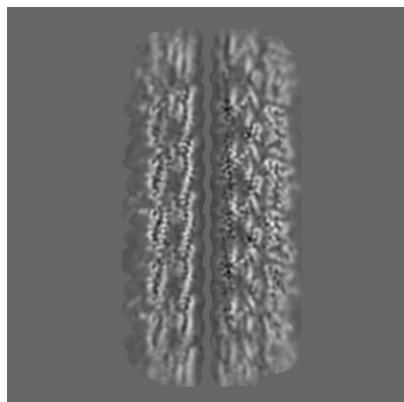


Z

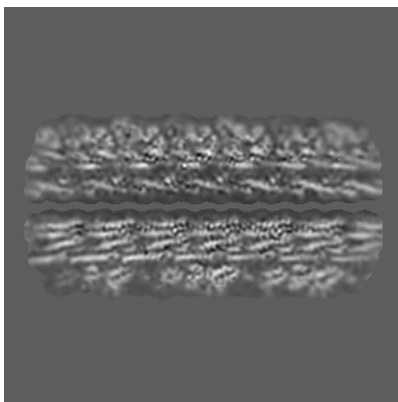
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

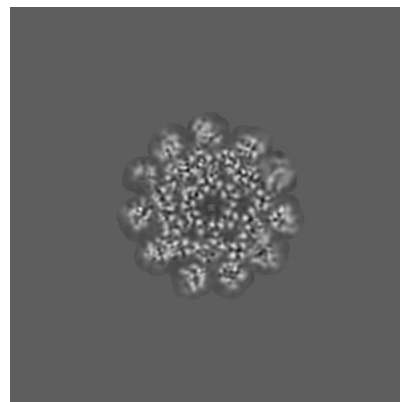
6.2.1 Primary map



X Index: 216

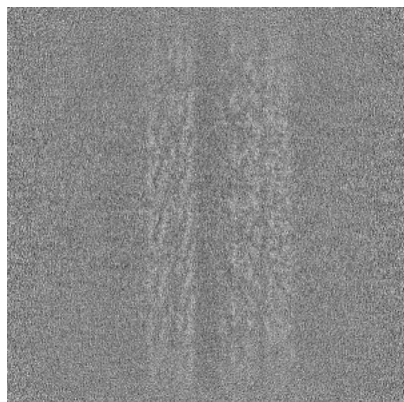


Y Index: 216

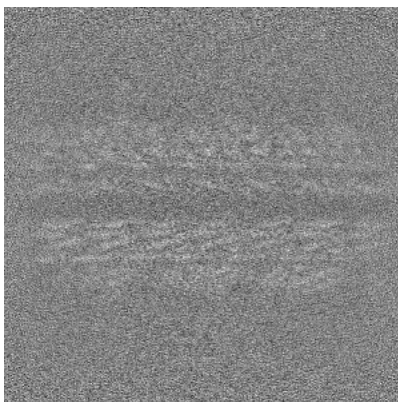


Z Index: 216

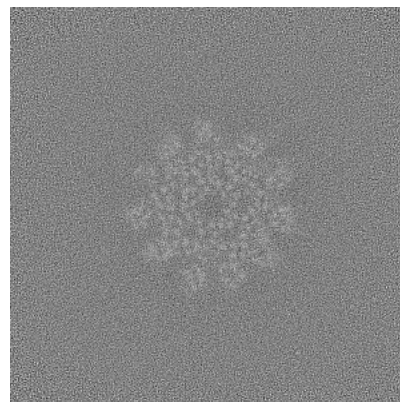
6.2.2 Raw map



X Index: 216



Y Index: 216

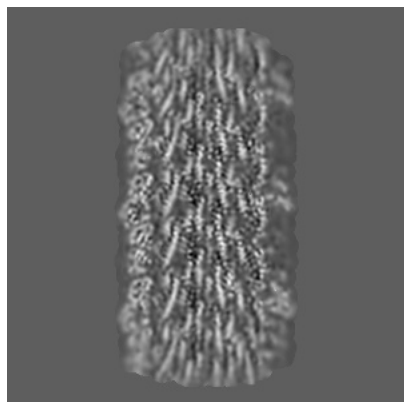


Z Index: 216

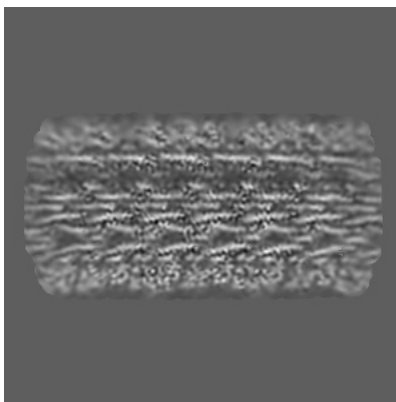
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

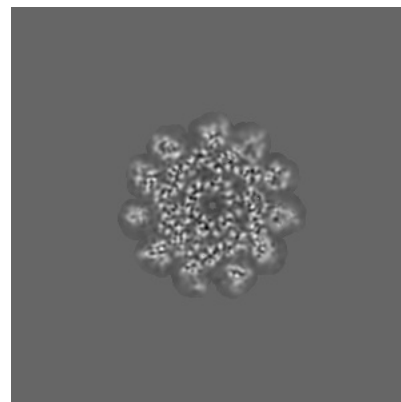
6.3.1 Primary map



X Index: 200

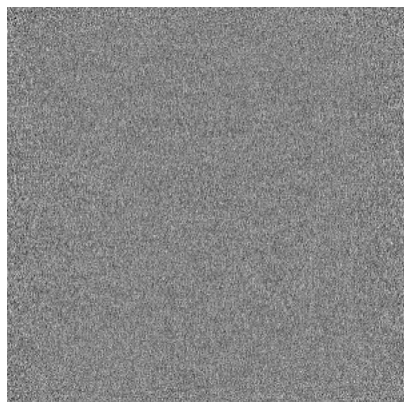


Y Index: 199

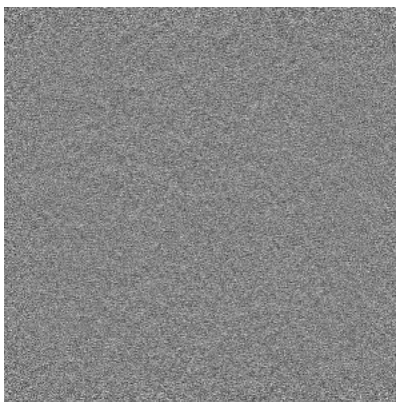


Z Index: 195

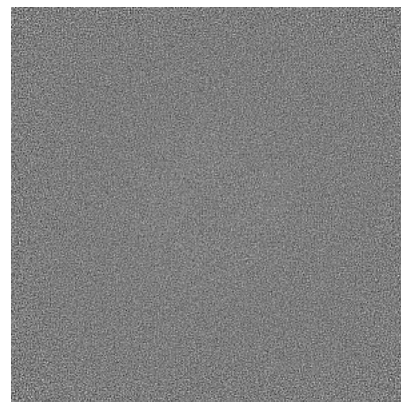
6.3.2 Raw map



X Index: 0



Y Index: 0

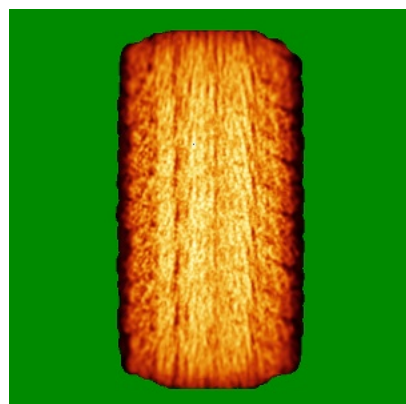


Z Index: 0

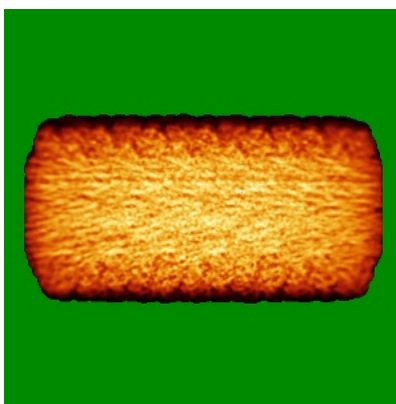
The images above show the largest variance slices of the map in three orthogonal directions.

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

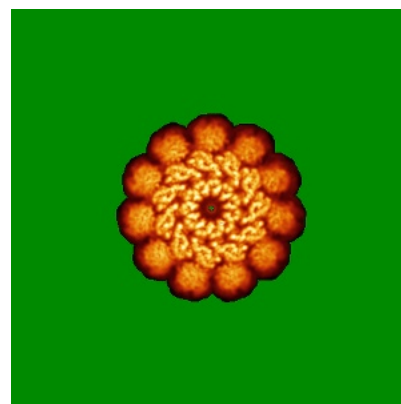
6.4.1 Primary map



X

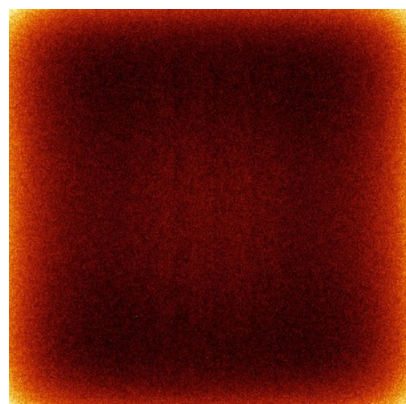


Y

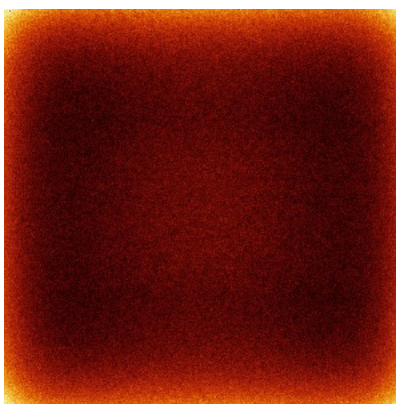


Z

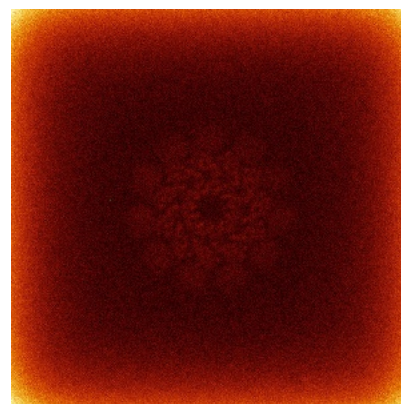
6.4.2 Raw map



X



Y



Z

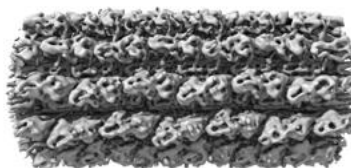
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



X



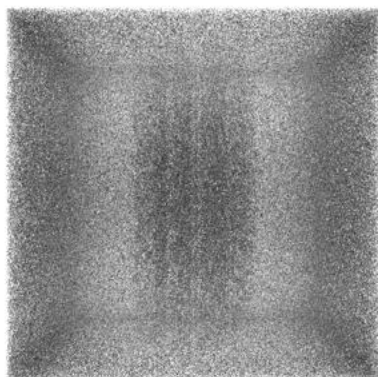
Y



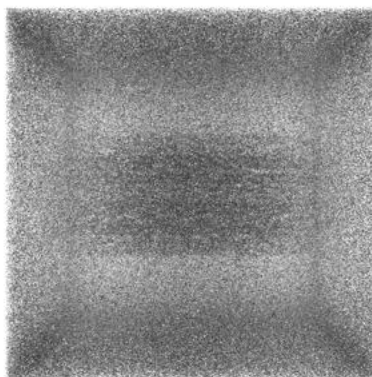
Z

The images above show the 3D surface view of the map at the recommended contour level 0.075. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

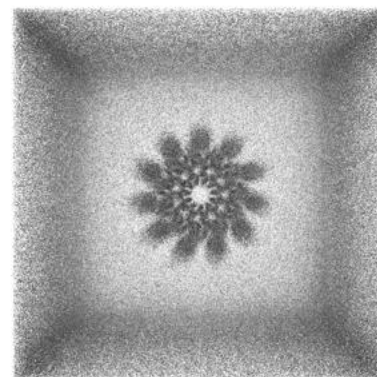
6.5.2 Raw map



X



Y



Z

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

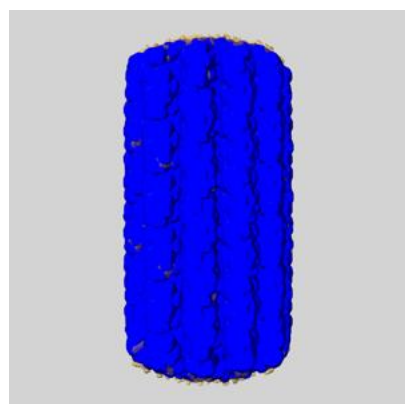
6.6 Mask visualisation [i](#)

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

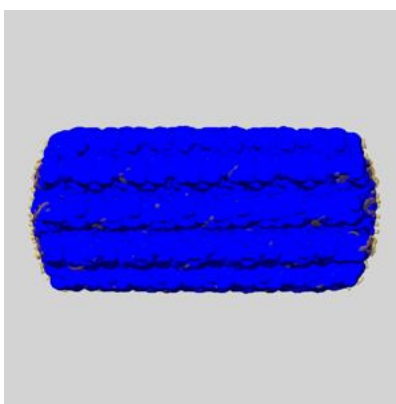
A mask typically either:

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

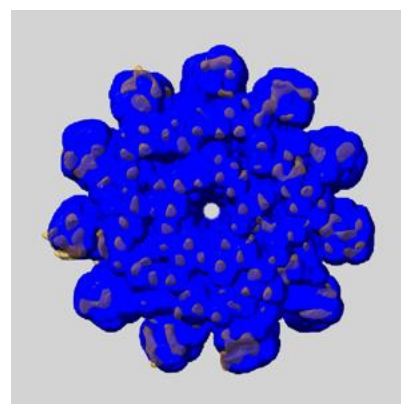
6.6.1 emd_40765_msk_1.map [i](#)



X



Y

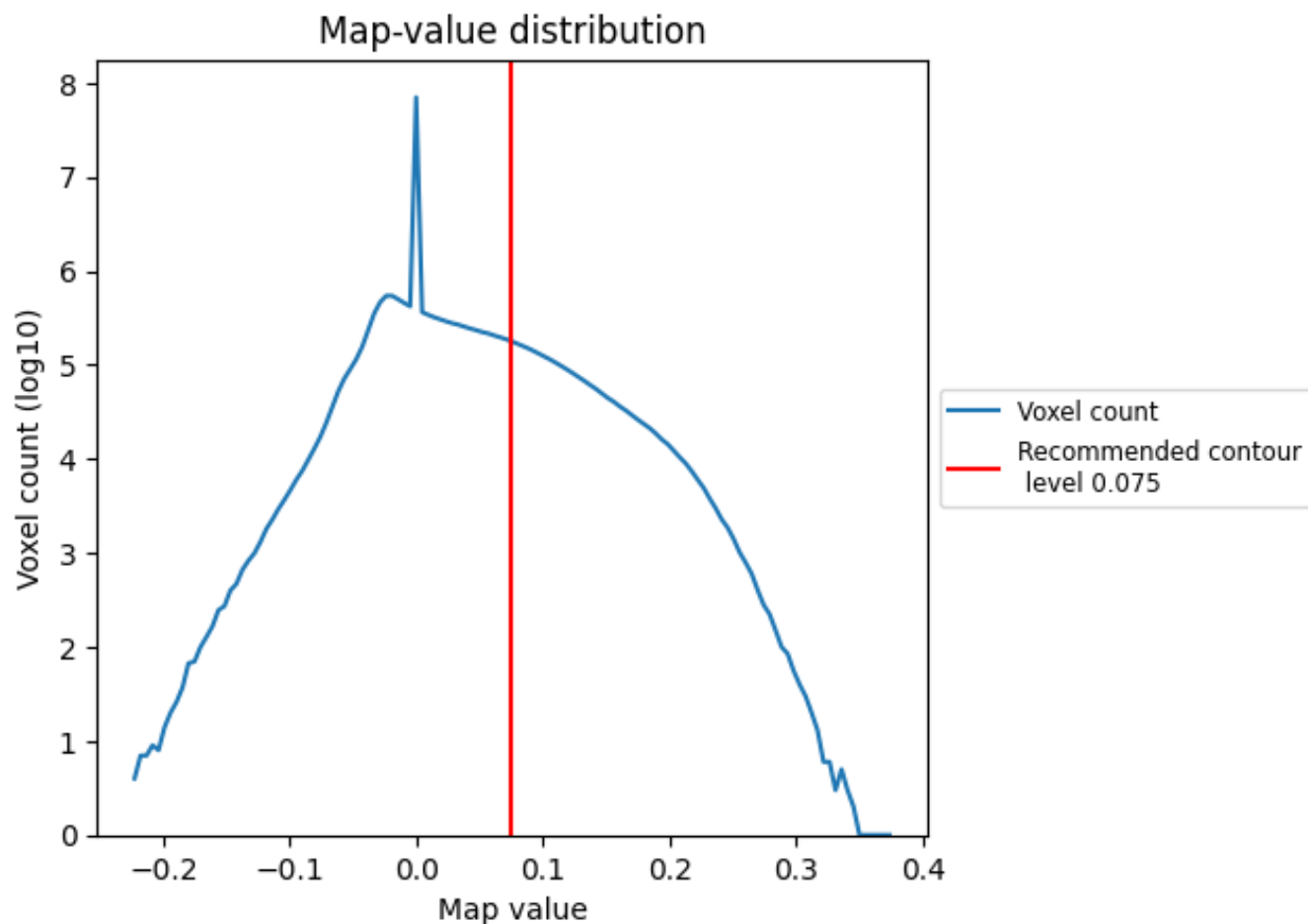


Z

7 Map analysis [i](#)

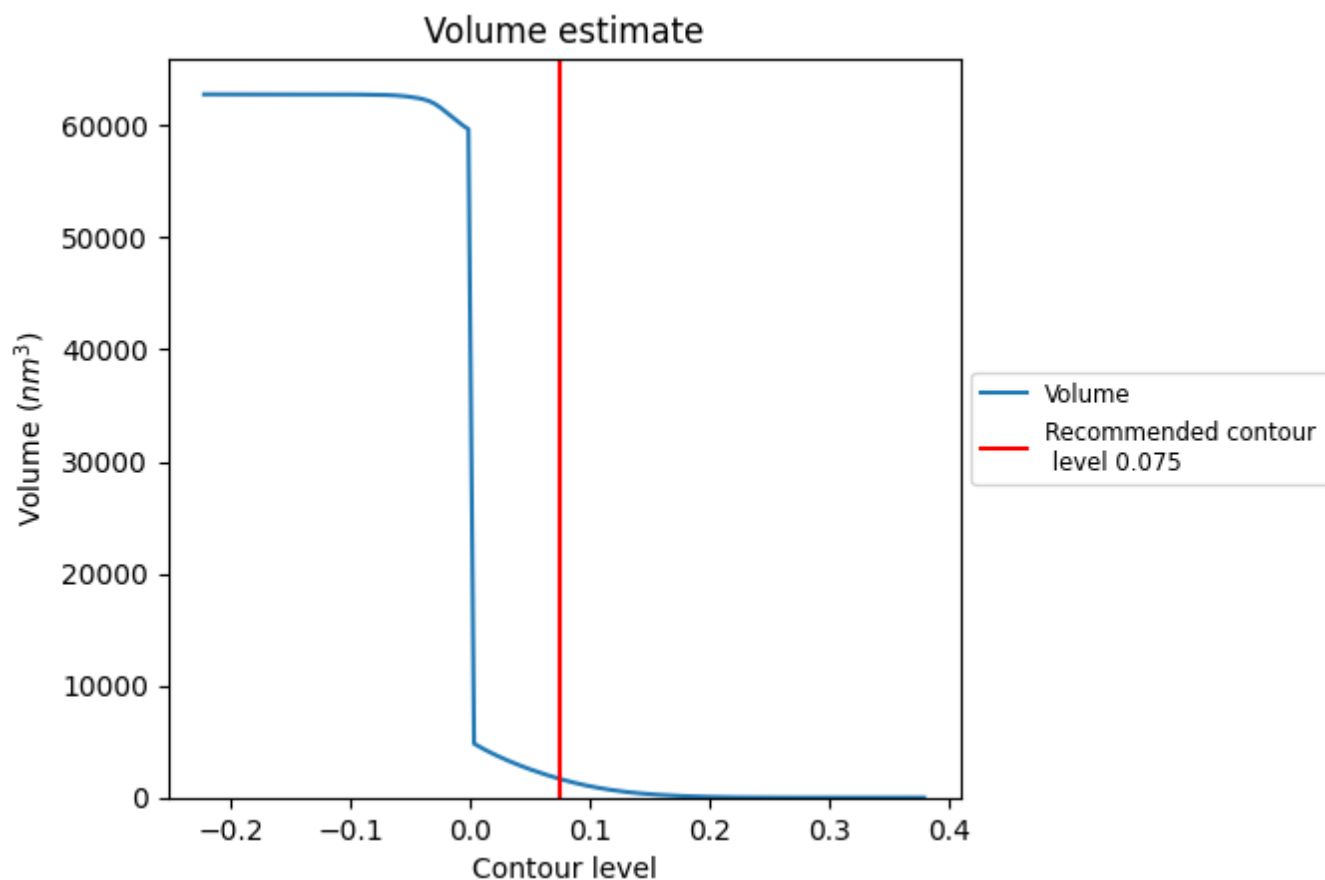
This section contains the results of statistical analysis of the map.

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.

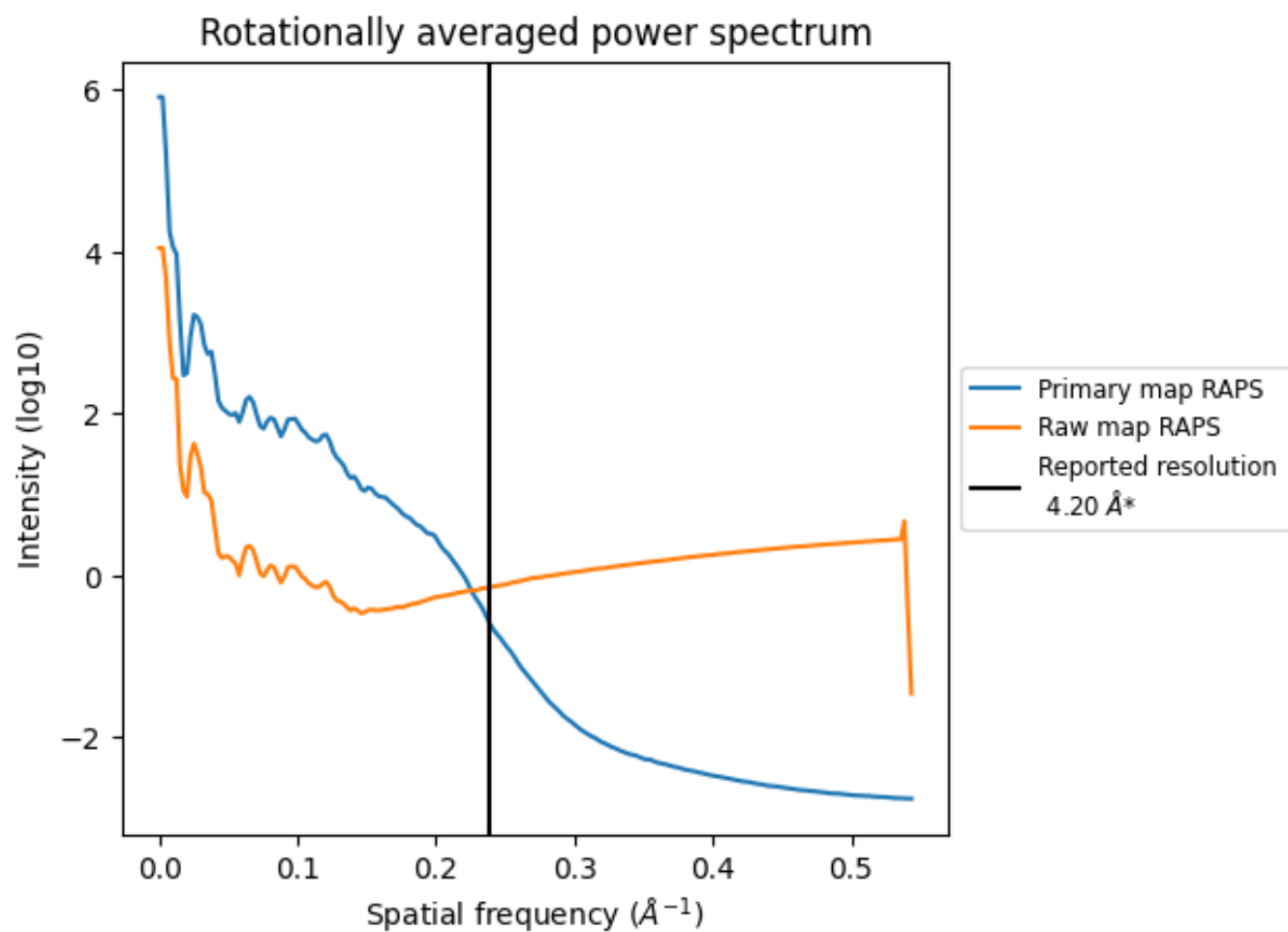
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1651 nm³; this corresponds to an approximate mass of 1491 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 ⓘ

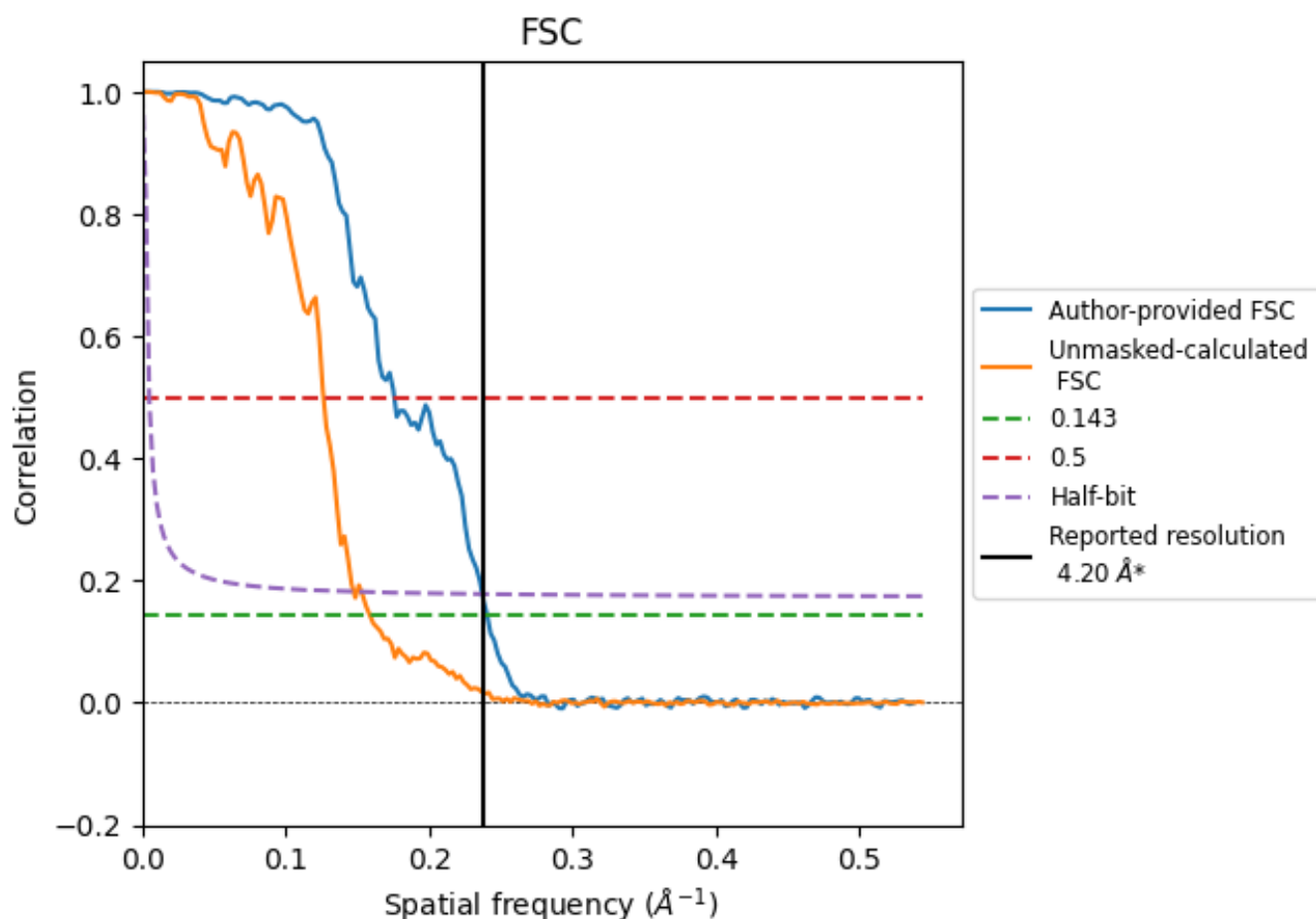


*Reported resolution corresponds to spatial frequency of 0.238 $\text{\AA}^{-1}$

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 0.238 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.20	-	-
Author-provided FSC curve	4.16	5.69	4.22
Unmasked-calculated*	6.30	7.91	6.79

*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 6.30 differs from the reported value 4.2 by more than 10 %

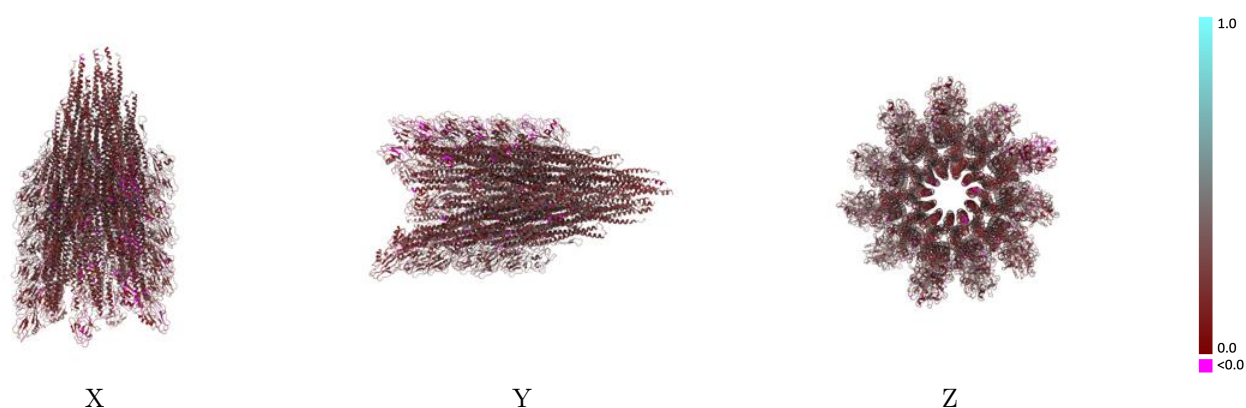
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-40765 and PDB model 8SUG. Per-residue inclusion information can be found in section 3 on page 8.

9.1 Map-model overlay [i](#)

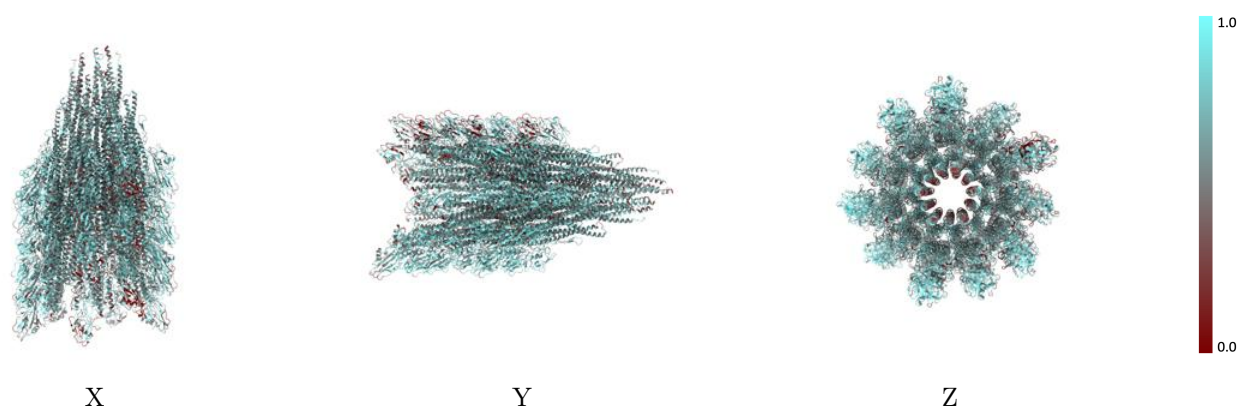
This section was not generated.

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



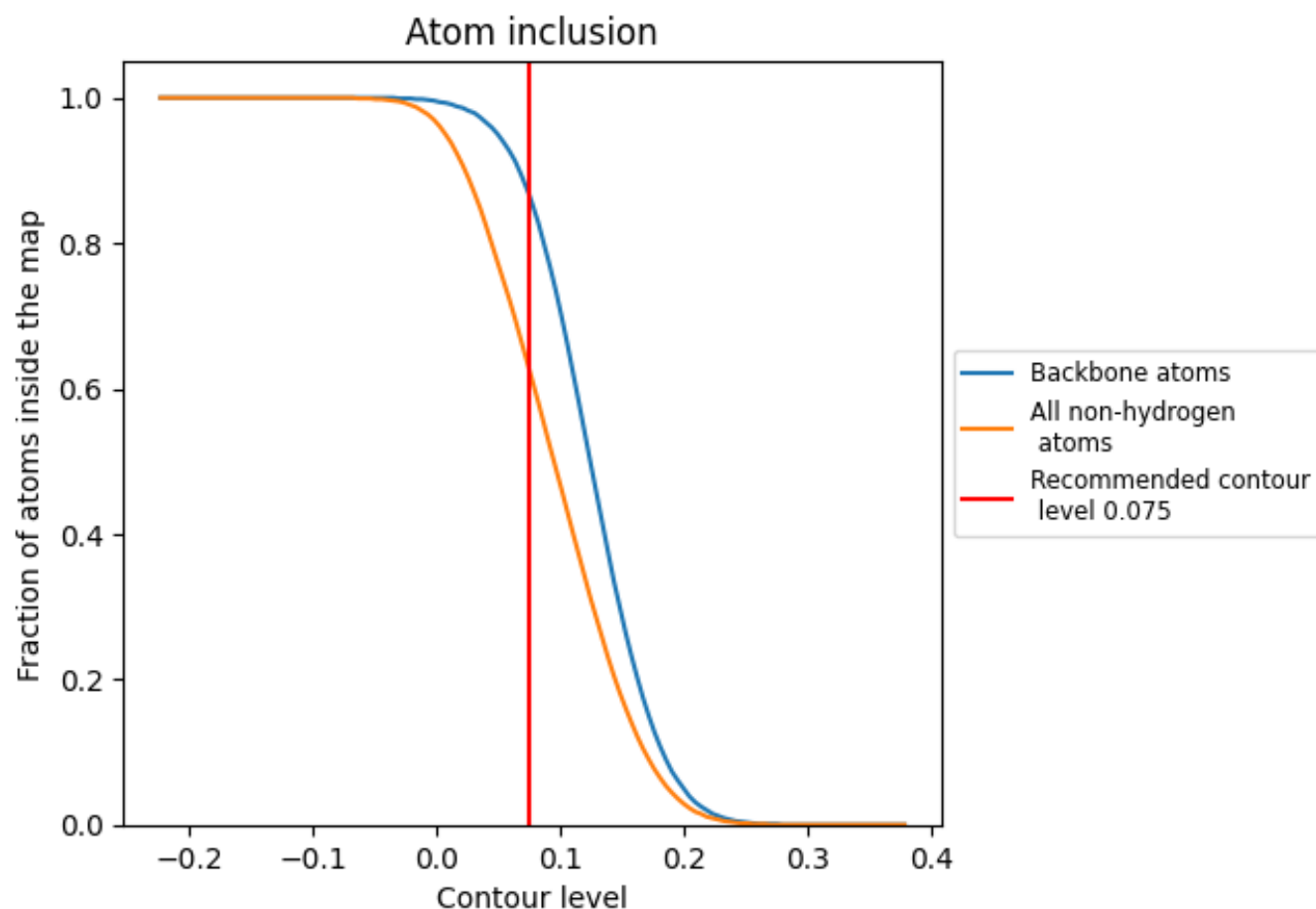
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.075).

9.4 Atom inclusion [i](#)



At the recommended contour level, 87% of all backbone atoms, 63% 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 (0.075) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6290	 0.2600
A	 0.5890	 0.2300
B	 0.5360	 0.2140
C	 0.5380	 0.2090
D	 0.6320	 0.2640
E	 0.6280	 0.2570
F	 0.5820	 0.2240
G	 0.6330	 0.2690
H	 0.6670	 0.2820
I	 0.6320	 0.2640
J	 0.6190	 0.2490
K	 0.6580	 0.2770
L	 0.6630	 0.2840
M	 0.6050	 0.2400
N	 0.6650	 0.2810
O	 0.6630	 0.2760
P	 0.6500	 0.2690
Q	 0.6630	 0.2840
R	 0.6790	 0.2950
S	 0.6240	 0.2530
T	 0.6630	 0.2750
U	 0.6770	 0.2880
V	 0.6360	 0.2580
W	 0.6710	 0.2900
X	 0.6440	 0.2680
Y	 0.5980	 0.2380
Z	 0.6500	 0.2760
a	 0.6390	 0.2720
b	 0.6270	 0.2490
c	 0.6280	 0.2590
d	 0.6330	 0.2620
e	 0.5630	 0.2190
f	 0.5860	 0.2400
g	 0.6180	 0.2550

