



Full wwPDB X-ray Structure Validation Report ⓘ

May 26, 2020 – 06:04 am BST

PDB ID : 1QZW
Title : Crystal structure of the complete core of archaeal SRP and implications for inter-domain communication
Authors : Rosendal, K.R.; Wild, K.; Montoya, G.; Sinning, I.
Deposited on : 2003-09-18
Resolution : 4.10 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.11
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.11

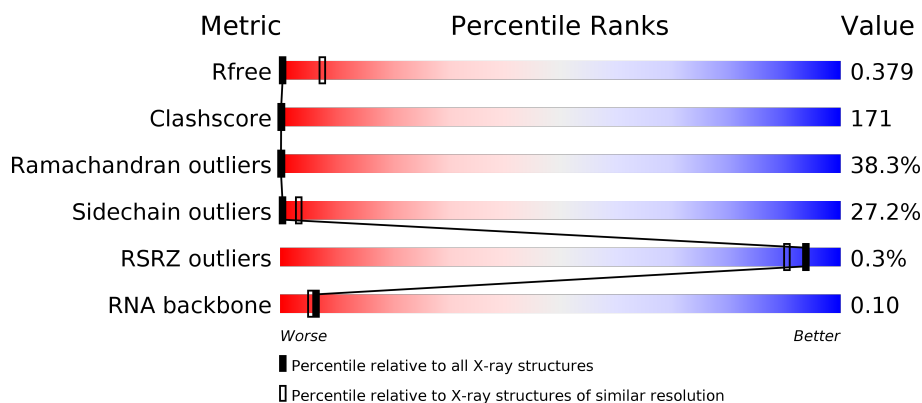
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION


The reported resolution of this entry is 4.10 Å.

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







Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1193 (4.50-3.70)
Clashscore	141614	1003 (4.44-3.76)
Ramachandran outliers	138981	1005 (4.48-3.72)
Sidechain outliers	138945	1199 (4.50-3.70)
RSRZ outliers	127900	1034 (4.50-3.70)
RNA backbone	3102	1049 (5.04-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	B	47	
1	D	47	
1	F	47	
1	H	47	

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Mol	Chain	Length	Quality of chain
2	A	440	
2	C	440	
2	E	440	
2	G	440	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
1	GTP	B	179	X	-	-	-
1	GTP	D	179	X	-	-	-
1	GTP	F	179	X	-	-	-
1	GTP	H	179	X	-	-	-

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 17720 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 RNA chain called 7S RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	B	47	Total	C	N	O	P	0	0	0
			1031	452	197	332	50			
1	D	47	Total	C	N	O	P	0	0	0
			1031	452	197	332	50			
1	F	47	Total	C	N	O	P	0	0	0
			1031	452	197	332	50			
1	H	47	Total	C	N	O	P	0	0	0
			1031	452	197	332	50			

- Molecule 2 is a protein called Signal recognition 54 kDa protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	A	432	Total	C	N	O	S	0	0	0
			3399	2173	574	637	15			
2	C	432	Total	C	N	O	S	0	0	0
			3399	2173	574	637	15			
2	E	432	Total	C	N	O	S	0	0	0
			3399	2173	574	637	15			
2	G	432	Total	C	N	O	S	0	0	0
			3399	2173	574	637	15			

There are 32 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-7	MET	-	EXPRESSION TAG	UNP Q97ZE7
A	-6	GLY	-	EXPRESSION TAG	UNP Q97ZE7
A	-5	HIS	-	EXPRESSION TAG	UNP Q97ZE7
A	-4	HIS	-	EXPRESSION TAG	UNP Q97ZE7
A	-3	HIS	-	EXPRESSION TAG	UNP Q97ZE7
A	-2	HIS	-	EXPRESSION TAG	UNP Q97ZE7
A	-1	HIS	-	EXPRESSION TAG	UNP Q97ZE7
A	0	HIS	-	EXPRESSION TAG	UNP Q97ZE7
C	-7	MET	-	EXPRESSION TAG	UNP Q97ZE7

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Chain	Residue	Modelled	Actual	Comment	Reference
C	-6	GLY	-	EXPRESSION TAG	UNP Q97ZE7
C	-5	HIS	-	EXPRESSION TAG	UNP Q97ZE7
C	-4	HIS	-	EXPRESSION TAG	UNP Q97ZE7
C	-3	HIS	-	EXPRESSION TAG	UNP Q97ZE7
C	-2	HIS	-	EXPRESSION TAG	UNP Q97ZE7
C	-1	HIS	-	EXPRESSION TAG	UNP Q97ZE7
C	0	HIS	-	EXPRESSION TAG	UNP Q97ZE7
E	-7	MET	-	EXPRESSION TAG	UNP Q97ZE7
E	-6	GLY	-	EXPRESSION TAG	UNP Q97ZE7
E	-5	HIS	-	EXPRESSION TAG	UNP Q97ZE7
E	-4	HIS	-	EXPRESSION TAG	UNP Q97ZE7
E	-3	HIS	-	EXPRESSION TAG	UNP Q97ZE7
E	-2	HIS	-	EXPRESSION TAG	UNP Q97ZE7
E	-1	HIS	-	EXPRESSION TAG	UNP Q97ZE7
E	0	HIS	-	EXPRESSION TAG	UNP Q97ZE7
G	-7	MET	-	EXPRESSION TAG	UNP Q97ZE7
G	-6	GLY	-	EXPRESSION TAG	UNP Q97ZE7
G	-5	HIS	-	EXPRESSION TAG	UNP Q97ZE7
G	-4	HIS	-	EXPRESSION TAG	UNP Q97ZE7
G	-3	HIS	-	EXPRESSION TAG	UNP Q97ZE7
G	-2	HIS	-	EXPRESSION TAG	UNP Q97ZE7
G	-1	HIS	-	EXPRESSION TAG	UNP Q97ZE7
G	0	HIS	-	EXPRESSION TAG	UNP Q97ZE7

3 Residue-property plots

These plots are drawn for all protein, RNA and DNA 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 electron 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 dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). 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: 7S RNA

Chain B: 



• Molecule 1: 7S RNA

Chain D: 



• Molecule 1: 7S RNA

Chain F: 



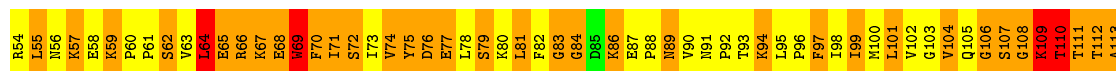
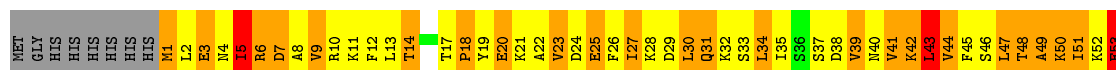
• Molecule 1: 7S RNA

Chain H: 



• Molecule 2: Signal recognition 54 kDa protein

Chain A: 



V175	Q235	G295	G356	E416
K176	A236	D296	I357	L417
M177	S237	I297	M358	L418
K178	P238	E298	H159	E419
M179	I239	P360	H159	W420
D180	G240	I300	T361	W421
I181	S241	L301	P362	W422
I182	I242	S302	S363	W423
I183	I243	K303	E364	W424
D184	I244	V304	G365	W425
D185	T245	K305	Q366	W426
T186	K246	G306	L367	L427
A187	M247	L307	K368	L428
G188	I248	E308	I369	W429
R189	G249	E309	G370	W430
H190	T250	Y310	E371	W431
G191	A251	D311	K372	K432
Y192	K252	K312	K373	
G193	G253	I313	I374	
E194	G254	Q314	K375	
E195	G255	K315	K376	
T196	A256	W377	W378	
K197	L257	M317	L378	
L198	S258	E318	A379	
L199	A259	D319	A380	
E200	V260	V320	L381	
E201	V261	M321	N382	
M202	A262	E322	S383	
K203	T263	G323	N384	
E204	G264	T385	T386	
M205	A265	K326	K387	
D206	T266	L327	E388	
D207	I267	L328	L389	
V208	K268	L329	E390	
L209	F269	R330	P391	
K210	I270	D331	N392	
P211	G271	V332	P393	
D212	T272	X333	N394	
D213	G273	A334	I395	
V214	E274	Q335	D396	
I215	K275	I336	K397	
L216	I276	I337	S398	
V217	D277	A338	R399	
L218	E278	R340	M400	
D219	L279	R341	R401	
A220	E280	M342	M402	
S221	T281	I403	I403	
I222	F282	G343	A404	
G223	N283	P344	E405	
Q224	A284	L345	G406	
K225	R285	S346	F407	
A226	R286	K347	S407	
Y227	F287	V348	G408	
D228	V288	L349	L409	
L229	S289	Q350	E410	
A230	R290	H351	V411	
S231	I291	I352	E412	
R232	L292	P353	E413	
F233	G293	V414	V414	
H234	M294	L355	R415	

• Molecule 2: Signal recognition 54 kDa protein



WET	B54	G114	V175	Q235	G295	G356	E416
GLY	L55	K115	K176	A236	D296	I357	L417
HIS	B56	A117	M177	S237	I297	M358	L418
HIS	K57	A117	L359	P238	E298	H159	E419
HIS	E58	Y118	D179	I239	P360	H159	W420
HIS	K59	F119	M180	G240	S299	T361	W421
HIS	P60	F120	I181	S241	L301	P362	W422
HIS	P61	K121	I182	I242	S302	S363	W423
M1	S62	K122	I183	T243	K303	E364	W424
L2	V63	L123	D184	I244	V304	G365	W425
E3	L64	L124	D185	T245	K305	Q366	W426
N4	B55	L125	T186	K246	G306	L367	L427
I5	B66	V127	A187	M247	L307	K368	L428
R6	K67	G128	G188	I248	E308	I369	W429
D7	B68	G129	R189	G249	E309	G370	W430
A8	W69	V130	H190	T250	Y310	E371	W431
V9	F70	A131	Y192	K252	D311	K372	K432
R10	I71	A132	G193	K253	K312	K373	
K11	S72	D133	E194	G254	I313	I374	
F12	I73	V134	E195	G255	Q314	K375	
L13	W74	I135	T196	A256	K315	K376	
Y75	D76	R136	K197	A257	W377	W378	
D77	E77	P137	L198	S258	M317	L378	
P18	L78	A138	L199	A259	E318	A379	
Y19	S79	Y140	E200	V260	D319	A380	
E20	R80	D141	E201	V261	V320	L381	
K21	L81	Q142	M202	A262	M321	N382	
A22	F82	L143	K203	T263	E322	S383	
G83	G83	L144	E204	G264	G323	N384	
D24	G84	Q145	M205	G265	K326	T385	
E25	R85	L146	Y206	T266	L327	K386	
F26	K86	G147	D207	I267	I328	K387	
I27	E87	N148	V208	K268	L328	E388	
P28	P88	Q149	L209	F269	R329	L389	
D29	N89	I150	K210	I270	R330	E390	
L30	V90	G151	P211	G271	N391	P392	
Q31	N91	V152	D212	T272	V332	N393	
K32	P92	Q153	D213	G273	X333	I394	
S33	T93	V154	V214	E274	A334	I395	
L34	L94	Y155	L215	K275	Q335	D396	
I35	L95	G156	L216	I276	I336	K397	
P96	P96	E157	V217	D277	I337	S398	
S37	P97	P158	L218	E278	A338	R399	
D38	I98	N159	D219	L279	L339	M400	
V39	I99	N160	A220	E280	R340	R401	
M100	M100	Q161	S221	T281	R341	R402	
L101	L101	M162	I222	F282	M342	M402	
V102	K42	P163	G223	N283	I403	I403	
G103	L43	L164	Q224	A284	G343	A404	
V104	V44	E165	K225	R285	P344	E405	
Q105	F45	Q166	A226	R286	L345	G406	
S46	S46	A167	Y227	F287	S346	F407	
L47	L47	K168	D228	V288	K347	S407	
T48	T48	L469	L229	S289	V348	G408	
A49	A49	G170	A230	R290	L349	L409	
K109	K109	P171	S231	I291	Q350	E410	
T110	T110	I172	R232	L292	H351	V411	
T111	T111	I173	F233	G293	I352	E412	
K52	K52	L174	H234	M294	P353	E413	
E53	F174	F174			V414	V414	
					L355	R415	

• Molecule 2: Signal recognition 54 kDa protein



4 Data and refinement statistics

Property	Value	Source
Space group	P 31	Depositor
Cell constants a, b, c, α , β , γ	137.76Å 137.76Å 307.89Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	30.00 – 4.10 29.81 – 4.10	Depositor EDS
% Data completeness (in resolution range)	97.2 (30.00-4.10) 98.3 (29.81-4.10)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.09	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.90 (at 4.11Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.340 , 0.387 0.348 , 0.379	Depositor DCC
R_{free} test set	4666 reflections (9.26%)	wwPDB-VP
Wilson B-factor (Å ²)	167.7	Xtriage
Anisotropy	0.020	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.21 , 98.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.44$, $\langle L^2 \rangle = 0.27$	Xtriage
Estimated twinning fraction	0.337 for -h,-k,l 0.339 for h,-h-k,-l 0.377 for -k,-h,-l	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	17720	wwPDB-VP
Average B, all atoms (Å ²)	70.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.22% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: GTP, CCC

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	B	0.88	0/1093	1.14	7/1706 (0.4%)
1	D	0.88	0/1093	1.14	7/1706 (0.4%)
1	F	0.88	0/1093	1.14	7/1706 (0.4%)
1	H	0.88	0/1093	1.14	7/1706 (0.4%)
2	A	0.63	0/3450	0.95	7/4636 (0.2%)
2	C	0.62	0/3450	0.96	7/4636 (0.2%)
2	E	0.62	0/3450	0.95	7/4636 (0.2%)
2	G	0.63	0/3450	0.95	7/4636 (0.2%)
All	All	0.69	0/18172	1.01	56/25368 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B	1	0
1	D	1	0
1	F	1	0
1	H	1	0
All	All	4	0

There are no bond length outliers.

All (56) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	217	U	C5'-C4'-C3'	-14.93	92.11	116.00
1	F	217	U	C5'-C4'-C3'	-14.90	92.15	116.00
1	B	217	U	C5'-C4'-C3'	-14.90	92.16	116.00
1	D	217	U	C5'-C4'-C3'	-14.89	92.18	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	217	U	N1-C1'-C2'	13.30	131.29	114.00
1	H	217	U	N1-C1'-C2'	13.30	131.29	114.00
1	D	217	U	N1-C1'-C2'	13.28	131.26	114.00
1	F	217	U	N1-C1'-C2'	13.26	131.24	114.00
1	B	217	U	O3'-P-O5'	12.41	127.58	104.00
1	F	217	U	O3'-P-O5'	12.41	127.57	104.00
1	D	217	U	O3'-P-O5'	12.40	127.55	104.00
1	H	217	U	O3'-P-O5'	12.39	127.55	104.00
1	B	217	U	C5'-C4'-O4'	-10.04	97.05	109.10
1	D	217	U	C5'-C4'-O4'	-10.03	97.06	109.10
1	F	217	U	C5'-C4'-O4'	-10.03	97.06	109.10
1	H	217	U	C5'-C4'-O4'	-10.03	97.06	109.10
2	A	64	LEU	CA-CB-CG	-7.03	99.14	115.30
2	C	64	LEU	CA-CB-CG	-7.02	99.16	115.30
2	G	64	LEU	CA-CB-CG	-7.01	99.17	115.30
2	E	64	LEU	CA-CB-CG	-7.00	99.21	115.30
2	C	356	GLY	N-CA-C	-5.83	98.52	113.10
2	A	356	GLY	N-CA-C	-5.83	98.53	113.10
2	G	356	GLY	N-CA-C	-5.83	98.53	113.10
2	E	356	GLY	N-CA-C	-5.82	98.56	113.10
1	D	198	G	N9-C1'-C2'	-5.72	105.71	112.00
1	H	198	G	N9-C1'-C2'	-5.71	105.72	112.00
1	B	198	G	N9-C1'-C2'	-5.70	105.73	112.00
1	F	198	G	N9-C1'-C2'	-5.68	105.75	112.00
2	A	316	LYS	N-CA-C	-5.51	96.12	111.00
2	G	316	LYS	N-CA-C	-5.51	96.12	111.00
2	C	316	LYS	N-CA-C	-5.51	96.14	111.00
2	E	316	LYS	N-CA-C	-5.50	96.14	111.00
2	C	86	LYS	N-CA-C	-5.36	96.52	111.00
2	G	86	LYS	N-CA-C	-5.36	96.53	111.00
2	E	86	LYS	N-CA-C	-5.35	96.55	111.00
2	A	86	LYS	N-CA-C	-5.35	96.56	111.00
2	E	108	GLY	N-CA-C	-5.34	99.75	113.10
2	A	108	GLY	N-CA-C	-5.33	99.76	113.10
2	G	108	GLY	N-CA-C	-5.33	99.76	113.10
2	C	108	GLY	N-CA-C	-5.32	99.80	113.10
1	H	202	G	N9-C1'-C2'	-5.29	106.18	112.00
1	D	202	G	N9-C1'-C2'	-5.28	106.20	112.00
1	F	202	G	N9-C1'-C2'	-5.28	106.20	112.00
1	B	202	G	N9-C1'-C2'	-5.27	106.20	112.00
2	C	311	ASP	N-CA-C	-5.21	96.94	111.00
2	G	311	ASP	N-CA-C	-5.20	96.97	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
2	A	311	ASP	N-CA-C	-5.19	96.98	111.00
2	E	311	ASP	N-CA-C	-5.19	96.98	111.00
1	F	189	A	N9-C1'-C2'	-5.10	106.39	112.00
1	B	189	A	N9-C1'-C2'	-5.09	106.40	112.00
1	H	189	A	N9-C1'-C2'	-5.07	106.43	112.00
2	G	295	GLY	N-CA-C	-5.05	100.47	113.10
1	D	189	A	N9-C1'-C2'	-5.04	106.45	112.00
2	E	295	GLY	N-CA-C	-5.04	100.49	113.10
2	A	295	GLY	N-CA-C	-5.04	100.50	113.10
2	C	295	GLY	N-CA-C	-5.04	100.51	113.10

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	B	179	GTP	C3'
1	D	179	GTP	C3'
1	F	179	GTP	C3'
1	H	179	GTP	C3'

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	B	1031	0	514	96	1
1	D	1031	0	514	94	0
1	F	1031	0	514	93	1
1	H	1031	0	514	92	1
2	A	3399	0	3543	1366	5
2	C	3399	0	3543	1401	15
2	E	3399	0	3543	1413	17
2	G	3399	0	3543	1356	4
All	All	17720	0	16228	5797	22

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 171.

All (5797) 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)
2:A:59:LYS:HD3	2:A:59:LYS:O	1.18	1.34
2:A:151:GLY:HA2	2:G:151:GLY:CA	1.68	1.23
2:A:151:GLY:CA	2:G:151:GLY:HA2	1.73	1.18
2:E:48:THR:HA	2:E:51:ILE:HD12	1.29	1.15
2:C:153:GLN:HG3	2:E:153:GLN:CG	1.76	1.14
2:G:48:THR:HA	2:G:51:ILE:HD12	1.29	1.14
2:A:59:LYS:HZ1	2:A:61:PRO:HA	1.01	1.14
2:E:243:ILE:HD12	2:E:269:PHE:H	1.10	1.14
2:C:153:GLN:CG	2:E:153:GLN:HG3	1.76	1.14
2:C:48:THR:HA	2:C:51:ILE:HD12	1.29	1.13
2:C:177:ASN:CG	2:E:144:LEU:CD1	2.18	1.11
2:A:48:THR:HA	2:A:51:ILE:HD12	1.29	1.11
2:G:288:VAL:HA	2:G:291:ILE:HD11	1.33	1.10
2:C:288:VAL:HA	2:C:291:ILE:HD11	1.33	1.10
2:C:352:ILE:HG13	2:C:353:PRO:HD2	1.33	1.09
2:G:243:ILE:HD12	2:G:269:PHE:H	1.10	1.09
2:E:359:LEU:HB3	2:E:360:PRO:HD2	1.35	1.09
2:C:359:LEU:HB3	2:C:360:PRO:HD2	1.35	1.09
2:C:59:LYS:HZ1	2:C:61:PRO:HA	0.99	1.09
2:A:243:ILE:HD12	2:A:269:PHE:H	1.10	1.08
2:A:288:VAL:HA	2:A:291:ILE:HD11	1.33	1.08
2:C:177:ASN:CB	2:E:144:LEU:HD11	1.81	1.08
2:G:352:ILE:HG13	2:G:353:PRO:HD2	1.33	1.08
2:E:352:ILE:HG13	2:E:353:PRO:HD2	1.33	1.08
2:E:288:VAL:HA	2:E:291:ILE:HD11	1.33	1.08
2:C:243:ILE:HD12	2:C:269:PHE:H	1.09	1.08
2:C:145:GLN:HB2	2:C:146:LEU:HD23	1.35	1.08
2:A:30:LEU:HG	2:A:31:GLN:H	1.19	1.07
2:G:145:GLN:HB2	2:G:146:LEU:HD23	1.35	1.07
2:G:30:LEU:HG	2:G:31:GLN:H	1.19	1.07
2:A:159:ASN:ND2	2:E:162:ASN:HD22	1.52	1.06
2:C:59:LYS:NZ	2:C:61:PRO:HA	1.68	1.06
1:D:214:C:H2'	1:D:215:C:H5'	1.38	1.06
2:E:304:VAL:HG13	2:E:308:GLU:CD	1.74	1.06
2:E:399:ARG:HB3	2:E:399:ARG:HH11	1.18	1.06
2:A:352:ILE:HG13	2:A:353:PRO:HD2	1.33	1.06
2:E:59:LYS:HZ1	2:E:61:PRO:HA	1.19	1.05
1:H:214:C:H2'	1:H:215:C:H5'	1.38	1.05
1:B:214:C:H2'	1:B:215:C:H5'	1.38	1.05
2:A:329:LEU:HA	2:A:332:VAL:HG23	1.38	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:359:LEU:HB3	2:G:360:PRO:HD2	1.35	1.05
2:C:59:LYS:HZ1	2:C:61:PRO:CA	1.68	1.05
2:G:329:LEU:HA	2:G:332:VAL:HG23	1.38	1.05
2:A:59:LYS:C	2:A:59:LYS:HD3	1.77	1.04
2:E:145:GLN:HB2	2:E:146:LEU:HD23	1.35	1.04
2:C:243:ILE:HD12	2:C:269:PHE:N	1.72	1.04
2:A:43:LEU:HD23	2:A:43:LEU:H	1.22	1.04
2:E:30:LEU:HG	2:E:31:GLN:H	1.19	1.04
1:F:214:C:H2'	1:F:215:C:H5'	1.38	1.03
2:A:145:GLN:HB2	2:A:146:LEU:HD23	1.35	1.03
2:A:359:LEU:HB3	2:A:360:PRO:HD2	1.35	1.03
2:A:399:ARG:HH11	2:A:399:ARG:HB3	1.18	1.03
2:C:162:ASN:HD22	2:G:159:ASN:CG	1.60	1.03
2:G:399:ARG:HB3	2:G:399:ARG:HH11	1.18	1.03
2:C:399:ARG:HH11	2:C:399:ARG:HB3	1.18	1.02
2:C:30:LEU:HG	2:C:31:GLN:H	1.19	1.02
2:G:243:ILE:HD12	2:G:269:PHE:N	1.72	1.02
2:A:101:LEU:HB3	2:A:185:ASP:HA	1.40	1.02
2:A:243:ILE:HD12	2:A:269:PHE:N	1.72	1.02
2:C:59:LYS:NZ	2:C:61:PRO:CA	2.21	1.02
2:E:243:ILE:HD12	2:E:269:PHE:N	1.72	1.02
2:G:59:LYS:HZ1	2:G:61:PRO:HA	1.20	1.02
2:E:43:LEU:H	2:E:43:LEU:HD23	1.22	1.01
2:E:101:LEU:HB3	2:E:185:ASP:HA	1.40	1.01
2:C:329:LEU:HA	2:C:332:VAL:HG23	1.38	1.01
2:G:414:VAL:O	2:G:417:LEU:HG	1.61	1.01
2:E:174:PHE:HA	2:E:177:ASN:HD22	1.26	1.01
2:E:304:VAL:HG13	2:E:308:GLU:OE1	1.61	1.01
1:F:197:G:H22	2:E:407:SER:HA	1.26	1.01
2:A:414:VAL:O	2:A:417:LEU:HG	1.61	1.00
2:C:174:PHE:HA	2:C:177:ASN:HD22	1.26	1.00
1:H:197:G:H22	2:G:407:SER:HA	1.26	1.00
1:B:197:G:H22	2:A:407:SER:HA	1.26	1.00
2:C:43:LEU:H	2:C:43:LEU:HD23	1.22	1.00
2:G:43:LEU:H	2:G:43:LEU:HD23	1.22	1.00
2:A:174:PHE:HA	2:A:177:ASN:HD22	1.26	1.00
2:C:414:VAL:O	2:C:417:LEU:HG	1.61	1.00
2:E:417:LEU:HB2	2:E:421:TYR:OH	1.62	0.99
2:E:414:VAL:O	2:E:417:LEU:HG	1.61	0.99
2:G:269:PHE:HB3	2:G:279:LEU:HD11	1.44	0.99
2:C:417:LEU:HB2	2:C:421:TYR:OH	1.62	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:329:LEU:HA	2:E:332:VAL:HG23	1.38	0.99
2:G:101:LEU:HB3	2:G:185:ASP:HA	1.40	0.99
2:G:174:PHE:HA	2:G:177:ASN:HD22	1.26	0.99
2:A:417:LEU:HB2	2:A:421:TYR:OH	1.62	0.99
2:G:115:LYS:HZ3	2:G:278:GLU:HB2	1.21	0.99
2:A:269:PHE:HB3	2:A:279:LEU:HD11	1.44	0.99
2:A:30:LEU:HG	2:A:31:GLN:N	1.74	0.99
2:A:59:LYS:HZ1	2:A:61:PRO:CA	1.76	0.99
2:E:394:ILE:H	2:E:395:ILE:HD12	1.27	0.98
2:C:177:ASN:CG	2:E:144:LEU:HD11	1.80	0.98
2:C:144:LEU:HD11	2:E:177:ASN:CB	1.94	0.97
2:E:422:ASN:C	2:E:425:ASN:HD21	1.67	0.97
2:C:101:LEU:HB3	2:C:185:ASP:HA	1.40	0.97
2:C:425:ASN:N	2:C:425:ASN:HD22	1.58	0.97
1:D:201:C:H2'	1:D:202:G:H8	1.30	0.97
1:D:197:G:H22	2:C:407:SER:HA	1.26	0.97
2:E:38:ASP:HB2	2:E:252:LYS:HB3	1.45	0.97
2:G:417:LEU:HB2	2:G:421:TYR:OH	1.62	0.97
2:C:162:ASN:HD22	2:G:159:ASN:ND2	1.61	0.97
2:C:422:ASN:C	2:C:425:ASN:HD21	1.67	0.97
2:C:269:PHE:HB3	2:C:279:LEU:HD11	1.44	0.97
2:A:394:ILE:H	2:A:395:ILE:HD12	1.27	0.97
2:E:115:LYS:HZ3	2:E:278:GLU:HB2	1.30	0.97
2:E:31:GLN:HA	2:E:34:LEU:HD11	1.46	0.97
2:A:422:ASN:C	2:A:425:ASN:HD21	1.67	0.96
2:G:422:ASN:C	2:G:425:ASN:HD21	1.67	0.96
2:C:115:LYS:HZ3	2:C:278:GLU:HB2	1.29	0.96
1:F:201:C:H2'	1:F:202:G:H8	1.29	0.96
2:G:31:GLN:HA	2:G:34:LEU:HD11	1.46	0.96
2:G:146:LEU:HD23	2:G:146:LEU:H	1.29	0.96
2:G:30:LEU:HG	2:G:31:GLN:N	1.74	0.96
1:H:201:C:H2'	1:H:202:G:H8	1.29	0.96
2:A:31:GLN:HA	2:A:34:LEU:HD11	1.46	0.96
2:E:269:PHE:HB3	2:E:279:LEU:HD11	1.44	0.96
2:A:59:LYS:NZ	2:A:61:PRO:HA	1.78	0.95
2:E:425:ASN:HD22	2:E:425:ASN:N	1.58	0.95
2:C:38:ASP:HB2	2:C:252:LYS:HB3	1.45	0.95
2:C:394:ILE:H	2:C:395:ILE:HD12	1.27	0.95
2:G:394:ILE:H	2:G:395:ILE:HD12	1.26	0.95
2:E:30:LEU:HG	2:E:31:GLN:N	1.74	0.95
2:E:154:VAL:HG12	2:E:155:TYR:H	1.30	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:38:ASP:HB2	2:A:252:LYS:HB3	1.45	0.95
2:C:31:GLN:HA	2:C:34:LEU:HD11	1.46	0.94
2:C:177:ASN:CG	2:E:144:LEU:HD13	1.88	0.94
2:E:146:LEU:HD23	2:E:146:LEU:H	1.29	0.94
2:E:267:ILE:HG22	2:E:268:LYS:H	1.33	0.94
2:E:59:LYS:NZ	2:E:61:PRO:HA	1.83	0.94
2:A:59:LYS:CD	2:A:59:LYS:O	2.14	0.94
2:G:38:ASP:HB2	2:G:252:LYS:HB3	1.45	0.94
2:G:59:LYS:NZ	2:G:61:PRO:HA	1.83	0.94
2:A:146:LEU:HD23	2:A:146:LEU:H	1.29	0.94
2:G:154:VAL:HG12	2:G:155:TYR:H	1.30	0.94
2:A:174:PHE:HA	2:A:177:ASN:ND2	1.83	0.94
2:G:425:ASN:N	2:G:425:ASN:HD22	1.57	0.94
2:C:154:VAL:HG12	2:C:155:TYR:H	1.30	0.93
2:G:174:PHE:HA	2:G:177:ASN:ND2	1.83	0.93
2:G:132:ALA:HB3	2:G:185:ASP:O	1.68	0.93
2:G:55:LEU:H	2:G:55:LEU:HD22	1.34	0.93
2:A:55:LEU:HD22	2:A:55:LEU:H	1.34	0.93
2:C:30:LEU:HG	2:C:31:GLN:N	1.74	0.93
2:A:132:ALA:HB3	2:A:185:ASP:O	1.68	0.93
2:A:41:VAL:HA	2:A:44:VAL:HG23	1.51	0.93
2:C:174:PHE:HA	2:C:177:ASN:ND2	1.83	0.93
2:C:132:ALA:HB3	2:C:185:ASP:O	1.68	0.93
1:B:201:C:H2'	1:B:202:G:H8	1.29	0.93
2:C:357:ILE:HB	2:C:358:MET:SD	2.09	0.93
2:E:357:ILE:HB	2:E:358:MET:SD	2.09	0.93
2:A:357:ILE:HB	2:A:358:MET:SD	2.09	0.93
2:G:41:VAL:HA	2:G:44:VAL:HG23	1.51	0.93
2:C:146:LEU:H	2:C:146:LEU:HD23	1.29	0.92
2:E:304:VAL:CG1	2:E:308:GLU:OE1	2.16	0.92
2:A:257:LEU:HD12	2:A:258:SER:N	1.85	0.92
2:A:267:ILE:HG22	2:A:268:LYS:H	1.32	0.92
2:C:146:LEU:O	2:C:150:ILE:HG23	1.70	0.92
2:C:267:ILE:HG22	2:C:268:LYS:H	1.33	0.92
2:C:55:LEU:H	2:C:55:LEU:HD22	1.34	0.92
2:E:55:LEU:H	2:E:55:LEU:HD22	1.34	0.92
2:E:132:ALA:HB3	2:E:185:ASP:O	1.68	0.92
2:G:337:ILE:HD12	2:G:337:ILE:H	1.32	0.92
2:E:337:ILE:HD12	2:E:337:ILE:H	1.32	0.92
2:A:154:VAL:HG12	2:A:155:TYR:H	1.30	0.92
2:A:425:ASN:HD22	2:A:425:ASN:N	1.57	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:257:LEU:HD12	2:C:258:SER:N	1.85	0.92
2:C:337:ILE:HD12	2:C:337:ILE:H	1.32	0.92
2:E:174:PHE:HA	2:E:177:ASN:ND2	1.83	0.92
2:G:257:LEU:HD12	2:G:258:SER:N	1.85	0.92
2:G:10:ARG:HA	2:G:13:LEU:HG	1.52	0.92
2:C:10:ARG:HA	2:C:13:LEU:HG	1.52	0.92
2:E:10:ARG:HA	2:E:13:LEU:HG	1.52	0.91
2:E:257:LEU:HD12	2:E:258:SER:N	1.85	0.91
2:E:41:VAL:HA	2:E:44:VAL:HG23	1.51	0.91
2:A:146:LEU:O	2:A:150:ILE:HG23	1.70	0.91
2:E:66:ARG:HB2	2:E:66:ARG:HH11	1.34	0.91
2:A:143:LEU:HG	2:A:144:LEU:H	1.36	0.91
2:A:115:LYS:HZ3	2:A:278:GLU:HB2	1.35	0.91
2:A:303:LYS:HB2	2:A:342:MET:SD	2.11	0.91
2:G:357:ILE:HB	2:G:358:MET:SD	2.09	0.91
2:G:303:LYS:HB2	2:G:342:MET:SD	2.11	0.91
2:A:66:ARG:HH11	2:A:66:ARG:HB2	1.34	0.91
2:C:153:GLN:HG3	2:E:153:GLN:HG3	0.95	0.91
2:E:102:VAL:HG11	2:E:202:MET:HG3	1.53	0.91
2:G:267:ILE:HG22	2:G:268:LYS:H	1.33	0.91
2:G:287:PHE:O	2:G:291:ILE:HD13	1.71	0.91
2:A:337:ILE:HD12	2:A:337:ILE:H	1.32	0.91
2:C:91:ASN:HB3	2:C:92:PRO:HD2	1.53	0.91
2:A:102:VAL:HG11	2:A:202:MET:HG3	1.53	0.91
2:A:132:ALA:HB2	2:A:184:VAL:HG12	1.53	0.91
2:A:287:PHE:O	2:A:291:ILE:HD13	1.71	0.91
2:E:132:ALA:HB2	2:E:184:VAL:HG12	1.53	0.91
2:G:132:ALA:HB2	2:G:184:VAL:HG12	1.53	0.91
2:C:41:VAL:HA	2:C:44:VAL:HG23	1.51	0.90
2:C:66:ARG:HH11	2:C:66:ARG:HB2	1.34	0.90
2:C:369:ILE:HG22	2:C:373:LYS:NZ	1.87	0.90
2:G:146:LEU:O	2:G:150:ILE:HG23	1.70	0.90
2:G:369:ILE:HG22	2:G:373:LYS:NZ	1.87	0.90
2:A:91:ASN:HB3	2:A:92:PRO:HD2	1.53	0.90
2:E:146:LEU:O	2:E:150:ILE:HG23	1.70	0.90
2:E:369:ILE:HG22	2:E:373:LYS:NZ	1.87	0.90
2:G:143:LEU:HG	2:G:144:LEU:H	1.36	0.90
2:A:59:LYS:HZ2	2:A:60:PRO:C	1.73	0.90
2:A:10:ARG:HA	2:A:13:LEU:HG	1.52	0.90
2:A:57:LYS:O	2:A:58:GLU:HG3	1.72	0.90
2:C:287:PHE:O	2:C:291:ILE:HD13	1.71	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:57:LYS:O	2:E:58:GLU:HG3	1.72	0.90
2:G:57:LYS:O	2:G:58:GLU:HG3	1.72	0.90
2:G:144:LEU:HD23	2:G:145:GLN:H	1.37	0.90
2:G:66:ARG:HH11	2:G:66:ARG:HB2	1.34	0.90
2:C:303:LYS:HB2	2:C:342:MET:SD	2.11	0.90
2:C:132:ALA:HB2	2:C:184:VAL:HG12	1.53	0.90
2:E:91:ASN:HB3	2:E:92:PRO:HD2	1.53	0.90
2:E:303:LYS:HB2	2:E:342:MET:SD	2.11	0.90
2:A:144:LEU:HD23	2:A:145:GLN:H	1.37	0.89
2:C:215:ILE:HG23	2:C:242:VAL:HA	1.54	0.89
2:C:243:ILE:CD1	2:C:269:PHE:H	1.85	0.89
2:E:143:LEU:HG	2:E:144:LEU:H	1.36	0.89
2:E:287:PHE:O	2:E:291:ILE:HD13	1.71	0.89
2:A:215:ILE:HG23	2:A:242:VAL:HA	1.54	0.89
2:A:279:LEU:HD12	2:A:280:GLU:H	1.37	0.89
2:C:144:LEU:HD23	2:C:145:GLN:H	1.37	0.89
2:C:340:ARG:HD3	2:C:375:ARG:HH21	1.37	0.89
2:G:279:LEU:HD12	2:G:280:GLU:H	1.37	0.89
2:A:115:LYS:NZ	2:A:278:GLU:HB2	1.88	0.89
2:C:102:VAL:HG11	2:C:202:MET:HG3	1.53	0.89
2:A:384:MET:HG2	2:A:403:ILE:HD13	1.54	0.89
2:C:312:LYS:O	2:C:315:LYS:HD2	1.73	0.89
2:G:243:ILE:CD1	2:G:269:PHE:H	1.85	0.89
2:A:296:ASP:CG	2:A:297:ILE:H	1.76	0.89
2:C:115:LYS:NZ	2:C:278:GLU:HB2	1.88	0.89
2:C:57:LYS:O	2:C:58:GLU:HG3	1.72	0.89
2:C:162:ASN:ND2	2:G:159:ASN:ND2	2.20	0.89
2:G:340:ARG:HD3	2:G:375:ARG:HH21	1.37	0.89
2:G:102:VAL:HG11	2:G:202:MET:HG3	1.53	0.89
2:C:384:MET:HG2	2:C:403:ILE:HD13	1.54	0.89
2:E:150:ILE:HD11	2:E:152:VAL:HB	1.55	0.89
2:E:243:ILE:CD1	2:E:269:PHE:H	1.85	0.89
2:A:243:ILE:CD1	2:A:269:PHE:H	1.85	0.89
2:C:143:LEU:HG	2:C:144:LEU:H	1.36	0.89
2:G:115:LYS:NZ	2:G:278:GLU:HB2	1.88	0.89
2:G:91:ASN:HB3	2:G:92:PRO:HD2	1.53	0.89
2:A:74:VAL:CG2	2:A:75:TYR:H	1.87	0.88
2:E:144:LEU:HD23	2:E:145:GLN:H	1.37	0.88
2:G:74:VAL:CG2	2:G:75:TYR:H	1.87	0.88
2:G:296:ASP:CG	2:G:297:ILE:H	1.76	0.88
2:E:115:LYS:NZ	2:E:278:GLU:HB2	1.88	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:340:ARG:HD3	2:E:375:ARG:HH21	1.37	0.88
2:A:369:ILE:HG22	2:A:373:LYS:NZ	1.87	0.88
2:A:312:LYS:O	2:A:315:LYS:HD2	1.73	0.88
2:C:279:LEU:HD12	2:C:280:GLU:H	1.38	0.88
2:E:296:ASP:CG	2:E:297:ILE:H	1.76	0.88
2:E:419:GLU:C	2:E:421:TYR:H	1.77	0.88
2:C:74:VAL:CG2	2:C:75:TYR:H	1.87	0.88
2:E:74:VAL:CG2	2:E:75:TYR:H	1.86	0.88
2:G:384:MET:HG2	2:G:403:ILE:HD13	1.54	0.88
2:E:384:MET:HG2	2:E:403:ILE:HD13	1.54	0.88
2:G:2:LEU:HG	2:G:3:GLU:N	1.89	0.88
2:E:389:LEU:HD23	2:E:389:LEU:H	1.38	0.87
1:F:201:C:H2'	1:F:202:G:C8	2.09	0.87
2:G:215:ILE:HG23	2:G:242:VAL:HA	1.54	0.87
2:G:312:LYS:O	2:G:315:LYS:HD2	1.73	0.87
2:A:389:LEU:H	2:A:389:LEU:HD23	1.38	0.87
2:E:104:VAL:HG23	2:E:105:GLN:N	1.90	0.87
2:A:104:VAL:HG23	2:A:105:GLN:N	1.90	0.87
2:C:2:LEU:HG	2:C:3:GLU:N	1.89	0.87
1:D:201:C:H2'	1:D:202:G:C8	2.09	0.87
1:H:201:C:H2'	1:H:202:G:C8	2.09	0.87
2:C:123:ARG:HB3	2:C:123:ARG:HH11	1.40	0.87
2:C:296:ASP:CG	2:C:297:ILE:H	1.76	0.87
2:C:151:GLY:HA2	2:E:151:GLY:HA2	1.54	0.87
2:E:312:LYS:O	2:E:315:LYS:HD2	1.73	0.87
2:A:2:LEU:HG	2:A:3:GLU:N	1.89	0.87
2:G:335:GLN:HE22	2:G:355:LEU:HA	1.40	0.86
2:A:369:ILE:HG22	2:A:373:LYS:HZ2	1.36	0.86
2:E:279:LEU:HD12	2:E:280:GLU:H	1.37	0.86
2:G:150:ILE:HD11	2:G:152:VAL:HB	1.55	0.86
2:A:419:GLU:C	2:A:421:TYR:H	1.77	0.86
2:E:335:GLN:HE22	2:E:355:LEU:HA	1.40	0.86
2:G:378:LEU:HA	2:G:381:LEU:CD1	2.06	0.86
2:A:335:GLN:HE22	2:A:355:LEU:HA	1.41	0.86
2:E:2:LEU:HG	2:E:3:GLU:N	1.89	0.86
2:G:247:MET:HB2	2:G:272:THR:HA	1.56	0.86
2:A:120:TYR:O	2:A:123:ARG:HB2	1.75	0.86
1:B:201:C:H2'	1:B:202:G:C8	2.09	0.86
2:E:247:MET:HB2	2:E:272:THR:HA	1.56	0.86
2:A:123:ARG:HH11	2:A:123:ARG:HB3	1.40	0.86
2:C:177:ASN:ND2	2:E:144:LEU:CD1	2.39	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:304:VAL:CA	2:E:308:GLU:OE1	2.22	0.86
2:G:384:MET:HB3	2:G:388:GLU:CD	1.96	0.86
2:C:150:ILE:HD11	2:C:152:VAL:HB	1.55	0.86
2:G:120:TYR:O	2:G:123:ARG:HB2	1.75	0.86
2:A:150:ILE:HD11	2:A:152:VAL:HB	1.55	0.86
2:A:59:LYS:NZ	2:A:61:PRO:CA	2.37	0.86
2:C:247:MET:HB2	2:C:272:THR:HA	1.56	0.86
2:C:378:LEU:HA	2:C:381:LEU:CD1	2.05	0.86
2:E:123:ARG:HB3	2:E:123:ARG:HH11	1.40	0.86
2:G:389:LEU:H	2:G:389:LEU:HD23	1.38	0.86
2:A:340:ARG:HD3	2:A:375:ARG:HH21	1.37	0.85
2:E:120:TYR:O	2:E:123:ARG:HB2	1.75	0.85
2:E:333:TYR:HB2	2:E:381:LEU:HD13	1.58	0.85
2:G:104:VAL:HG23	2:G:105:GLN:N	1.90	0.85
2:G:419:GLU:C	2:G:421:TYR:H	1.77	0.85
2:E:215:ILE:HG23	2:E:242:VAL:HA	1.54	0.85
2:E:390:GLU:C	2:E:392:PRO:HD3	1.96	0.85
2:A:242:VAL:O	2:A:243:ILE:HD13	1.76	0.85
2:A:378:LEU:HA	2:A:381:LEU:CD1	2.05	0.85
2:A:333:TYR:HB2	2:A:381:LEU:HD13	1.58	0.85
2:A:390:GLU:C	2:A:392:PRO:HD3	1.96	0.85
2:G:123:ARG:HB3	2:G:123:ARG:HH11	1.40	0.85
2:C:104:VAL:HG23	2:C:105:GLN:N	1.90	0.85
2:C:389:LEU:H	2:C:389:LEU:HD23	1.38	0.85
2:A:106:GLY:HA2	2:A:109:LYS:HB2	1.59	0.85
2:A:250:THR:HG22	2:A:252:LYS:HD3	1.57	0.85
1:B:191:C:H5'	1:B:192:G:OP2	1.77	0.85
2:C:242:VAL:O	2:C:243:ILE:HD13	1.76	0.85
2:C:335:GLN:HE22	2:C:355:LEU:HA	1.41	0.85
2:C:74:VAL:HG23	2:C:75:TYR:N	1.92	0.85
2:C:144:LEU:HD11	2:E:177:ASN:HB3	1.57	0.85
2:G:250:THR:HG22	2:G:252:LYS:HD3	1.57	0.85
2:G:374:ILE:HD13	2:G:375:ARG:N	1.92	0.85
2:A:247:MET:HB2	2:A:272:THR:HA	1.56	0.85
2:A:374:ILE:HD13	2:A:375:ARG:N	1.92	0.85
2:A:384:MET:HB3	2:A:388:GLU:CD	1.96	0.85
2:E:378:LEU:HA	2:E:381:LEU:CD1	2.05	0.85
2:C:43:LEU:H	2:C:43:LEU:CD2	1.84	0.85
2:C:87:GLU:HA	2:C:87:GLU:OE2	1.77	0.85
2:E:74:VAL:CG2	2:E:75:TYR:N	2.40	0.85
2:G:242:VAL:O	2:G:243:ILE:HD13	1.76	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:390:GLU:C	2:G:392:PRO:HD3	1.96	0.85
2:C:120:TYR:O	2:C:123:ARG:HB2	1.75	0.84
2:G:333:TYR:HB2	2:G:381:LEU:HD13	1.58	0.84
2:G:204:GLU:O	2:G:208:VAL:HG22	1.78	0.84
1:H:191:C:H5'	1:H:192:G:OP2	1.77	0.84
2:A:425:ASN:HA	2:A:428:LEU:HB3	1.59	0.84
1:D:191:C:H5'	1:D:192:G:OP2	1.77	0.84
2:A:74:VAL:HG23	2:A:75:TYR:N	1.92	0.84
2:C:106:GLY:HA2	2:C:109:LYS:HB2	1.59	0.84
2:C:390:GLU:C	2:C:392:PRO:HD3	1.96	0.84
2:A:204:GLU:O	2:A:208:VAL:HG22	1.78	0.84
2:C:425:ASN:ND2	2:C:425:ASN:N	2.24	0.84
2:E:250:THR:HG22	2:E:252:LYS:HD3	1.57	0.84
2:E:384:MET:HB3	2:E:388:GLU:CD	1.97	0.84
2:G:425:ASN:ND2	2:G:425:ASN:N	2.24	0.84
2:G:60:PRO:HA	2:G:69:TRP:CE3	2.13	0.84
2:A:144:LEU:HD23	2:A:145:GLN:N	1.92	0.84
2:A:288:VAL:CA	2:A:291:ILE:HD11	2.08	0.84
2:C:250:THR:HG22	2:C:252:LYS:HD3	1.57	0.84
2:C:333:TYR:HB2	2:C:381:LEU:HD13	1.58	0.84
2:E:87:GLU:HA	2:E:87:GLU:OE2	1.77	0.84
2:G:9:VAL:O	2:G:12:PHE:HB3	1.78	0.84
2:A:243:ILE:HD11	2:A:268:LYS:HB2	1.60	0.84
2:C:144:LEU:HD23	2:C:145:GLN:N	1.92	0.84
2:C:419:GLU:C	2:C:421:TYR:H	1.77	0.84
2:E:242:VAL:O	2:E:243:ILE:HD13	1.76	0.84
2:E:395:ILE:HD12	2:E:395:ILE:H	1.43	0.84
2:G:425:ASN:HA	2:G:428:LEU:HB3	1.60	0.84
2:A:328:THR:HG22	2:A:329:LEU:HD12	1.60	0.84
2:C:374:ILE:HD13	2:C:375:ARG:N	1.92	0.84
2:E:74:VAL:HG23	2:E:75:TYR:N	1.92	0.84
2:G:328:THR:HG22	2:G:329:LEU:HD12	1.59	0.84
2:G:395:ILE:H	2:G:395:ILE:HD12	1.43	0.84
2:A:180:ASP:C	2:A:181:ILE:HD12	1.98	0.84
2:A:60:PRO:HA	2:A:69:TRP:CE3	2.13	0.84
2:C:177:ASN:CB	2:E:144:LEU:CD1	2.55	0.84
2:C:74:VAL:CG2	2:C:75:TYR:N	2.40	0.83
2:E:180:ASP:C	2:E:181:ILE:HD12	1.98	0.83
2:G:106:GLY:HA2	2:G:109:LYS:HB2	1.59	0.83
2:G:144:LEU:HD23	2:G:145:GLN:N	1.92	0.83
2:G:180:ASP:C	2:G:181:ILE:HD12	1.98	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:9:VAL:O	2:A:12:PHE:HB3	1.78	0.83
2:C:9:VAL:O	2:C:12:PHE:HB3	1.78	0.83
2:C:384:MET:HB3	2:C:388:GLU:CD	1.96	0.83
2:E:300:ILE:O	2:E:303:LYS:HG2	1.79	0.83
2:E:304:VAL:HA	2:E:308:GLU:OE1	1.78	0.83
2:A:216:LEU:H	2:A:242:VAL:HG12	1.44	0.83
2:A:87:GLU:HA	2:A:87:GLU:OE2	1.77	0.83
2:E:374:ILE:HD13	2:E:375:ARG:N	1.92	0.83
2:A:298:GLU:HA	2:A:301:LEU:HD13	1.60	0.83
2:A:159:ASN:ND2	2:E:162:ASN:ND2	2.25	0.83
2:E:216:LEU:H	2:E:242:VAL:HG12	1.44	0.83
2:E:218:ILE:N	2:E:218:ILE:HD13	1.93	0.83
2:E:287:PHE:CE1	2:E:291:ILE:HD12	2.13	0.83
2:E:60:PRO:HA	2:E:69:TRP:CE3	2.13	0.83
1:F:191:C:H5'	1:F:192:G:OP2	1.77	0.83
2:C:300:ILE:O	2:C:303:LYS:HG2	1.79	0.83
2:C:395:ILE:H	2:C:395:ILE:HD12	1.43	0.83
2:G:72:SER:O	2:G:76:ASP:HB2	1.79	0.83
2:C:216:LEU:H	2:C:242:VAL:HG12	1.44	0.83
2:G:74:VAL:HG23	2:G:75:TYR:N	1.92	0.83
2:C:352:ILE:CG1	2:C:353:PRO:HD2	2.08	0.83
2:E:267:ILE:HG22	2:E:268:LYS:N	1.93	0.83
2:G:216:LEU:H	2:G:242:VAL:HG12	1.44	0.83
2:G:298:GLU:HA	2:G:301:LEU:HD13	1.60	0.83
2:C:204:GLU:O	2:C:208:VAL:HG22	1.78	0.83
2:E:9:VAL:O	2:E:12:PHE:HB3	1.78	0.83
2:E:144:LEU:HD23	2:E:145:GLN:N	1.92	0.83
2:E:328:THR:HG22	2:E:329:LEU:HD12	1.60	0.83
2:E:72:SER:O	2:E:76:ASP:HB2	1.79	0.83
2:G:243:ILE:HD11	2:G:268:LYS:HB2	1.60	0.83
2:E:352:ILE:CG1	2:E:353:PRO:HD2	2.08	0.83
2:E:402:ARG:O	2:E:406:GLY:N	2.12	0.83
2:A:287:PHE:CE1	2:A:291:ILE:HD12	2.13	0.83
2:G:218:ILE:N	2:G:218:ILE:HD13	1.93	0.83
2:G:287:PHE:CE1	2:G:291:ILE:HD12	2.13	0.83
2:G:399:ARG:CB	2:G:399:ARG:HH11	1.92	0.83
2:A:218:ILE:N	2:A:218:ILE:HD13	1.93	0.82
2:C:60:PRO:HA	2:C:69:TRP:CE3	2.13	0.82
2:E:106:GLY:HA2	2:E:109:LYS:HB2	1.59	0.82
2:E:425:ASN:HA	2:E:428:LEU:HB3	1.59	0.82
2:A:167:ALA:O	2:A:171:VAL:HG23	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:267:ILE:HG22	2:A:268:LYS:N	1.93	0.82
2:A:74:VAL:CG2	2:A:75:TYR:N	2.40	0.82
2:C:180:ASP:C	2:C:181:ILE:HD12	1.98	0.82
2:G:288:VAL:CA	2:G:291:ILE:HD11	2.08	0.82
2:G:352:ILE:CG1	2:G:353:PRO:HD2	2.08	0.82
2:G:74:VAL:CG2	2:G:75:TYR:N	2.40	0.82
2:A:72:SER:O	2:A:76:ASP:HB2	1.79	0.82
2:C:399:ARG:CB	2:C:399:ARG:HH11	1.92	0.82
2:E:204:GLU:O	2:E:208:VAL:HG22	1.78	0.82
2:A:401:ARG:O	2:A:404:ALA:HB3	1.80	0.82
2:C:401:ARG:O	2:C:404:ALA:HB3	1.80	0.82
2:E:399:ARG:CB	2:E:399:ARG:HH11	1.92	0.82
2:G:401:ARG:O	2:G:404:ALA:HB3	1.80	0.82
2:A:395:ILE:HD12	2:A:395:ILE:H	1.43	0.82
2:A:41:VAL:HA	2:A:44:VAL:CG2	2.10	0.82
2:C:167:ALA:O	2:C:171:VAL:HG23	1.79	0.82
2:C:218:ILE:N	2:C:218:ILE:HD13	1.93	0.82
2:G:87:GLU:OE2	2:G:87:GLU:HA	1.77	0.82
2:A:352:ILE:CG1	2:A:353:PRO:HD2	2.08	0.82
2:C:287:PHE:CE1	2:C:291:ILE:HD12	2.13	0.82
2:E:167:ALA:O	2:E:171:VAL:HG23	1.79	0.82
2:G:402:ARG:O	2:G:406:GLY:N	2.12	0.82
2:A:300:ILE:O	2:A:303:LYS:HG2	1.78	0.82
2:A:425:ASN:N	2:A:425:ASN:ND2	2.24	0.82
2:C:144:LEU:CD1	2:E:177:ASN:CG	2.47	0.82
2:E:298:GLU:HA	2:E:301:LEU:HD13	1.60	0.82
2:A:378:LEU:O	2:A:381:LEU:HG	1.80	0.82
2:C:328:THR:HG22	2:C:329:LEU:HD12	1.59	0.82
2:C:425:ASN:HA	2:C:428:LEU:HB3	1.59	0.82
2:C:72:SER:O	2:C:76:ASP:HB2	1.79	0.82
2:G:167:ALA:O	2:G:171:VAL:HG23	1.79	0.82
2:G:267:ILE:HG22	2:G:268:LYS:N	1.93	0.82
2:C:12:PHE:HD2	2:C:13:LEU:HD23	1.45	0.82
2:C:243:ILE:HD11	2:C:268:LYS:HB2	1.60	0.82
2:E:243:ILE:HD11	2:E:268:LYS:HB2	1.60	0.82
2:A:243:ILE:HG23	2:A:269:PHE:C	2.00	0.81
2:A:402:ARG:O	2:A:406:GLY:N	2.12	0.81
2:C:267:ILE:HG22	2:C:268:LYS:N	1.93	0.81
2:C:288:VAL:CA	2:C:291:ILE:HD11	2.08	0.81
2:C:402:ARG:O	2:C:406:GLY:N	2.12	0.81
1:D:195:C:O2	1:D:195:C:H2'	1.79	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:378:LEU:O	2:E:381:LEU:HG	1.80	0.81
2:E:90:VAL:HG12	2:E:268:LYS:HD3	1.62	0.81
2:C:378:LEU:O	2:C:381:LEU:HG	1.80	0.81
2:E:12:PHE:HD2	2:E:13:LEU:HD23	1.45	0.81
2:E:336:ILE:HB	2:E:337:ILE:HD12	1.61	0.81
2:G:12:PHE:HD2	2:G:13:LEU:HD23	1.45	0.81
2:G:300:ILE:O	2:G:303:LYS:HG2	1.78	0.81
2:C:336:ILE:HB	2:C:337:ILE:HD12	1.61	0.81
2:C:59:LYS:NZ	2:C:60:PRO:O	2.13	0.81
2:E:288:VAL:CA	2:E:291:ILE:HD11	2.08	0.81
2:G:243:ILE:HG23	2:G:269:PHE:C	2.00	0.81
2:C:90:VAL:HG12	2:C:268:LYS:HD3	1.62	0.81
2:E:378:LEU:HA	2:E:381:LEU:HD11	1.63	0.81
2:G:90:VAL:HG12	2:G:268:LYS:HD3	1.63	0.81
2:C:41:VAL:HA	2:C:44:VAL:CG2	2.10	0.81
2:G:132:ALA:O	2:G:186:THR:HA	1.81	0.81
2:E:41:VAL:HA	2:E:44:VAL:CG2	2.10	0.81
2:A:399:ARG:CB	2:A:399:ARG:HH11	1.92	0.81
2:C:298:GLU:HA	2:C:301:LEU:HD13	1.60	0.81
2:G:378:LEU:O	2:G:381:LEU:HG	1.80	0.81
2:G:426:ARG:HA	2:G:429:LYS:HD3	1.63	0.81
2:E:401:ARG:O	2:E:404:ALA:HB3	1.80	0.81
2:C:120:TYR:HA	2:C:123:ARG:HG3	1.63	0.81
2:C:426:ARG:HA	2:C:429:LYS:HD3	1.63	0.81
2:E:243:ILE:HG23	2:E:269:PHE:C	2.00	0.81
2:G:336:ILE:O	2:G:339:LEU:HG	1.81	0.81
2:C:336:ILE:O	2:C:339:LEU:HG	1.81	0.80
2:G:336:ILE:HB	2:G:337:ILE:HD12	1.61	0.80
2:C:378:LEU:HA	2:C:381:LEU:HD11	1.63	0.80
2:G:41:VAL:HA	2:G:44:VAL:CG2	2.10	0.80
2:A:132:ALA:O	2:A:186:THR:HA	1.81	0.80
2:C:132:ALA:O	2:C:186:THR:HA	1.81	0.80
2:E:346:SER:C	2:E:350:GLN:HE21	1.85	0.80
1:F:195:C:O2	1:F:195:C:H2'	1.79	0.80
2:A:12:PHE:HD2	2:A:13:LEU:HD23	1.45	0.80
2:A:426:ARG:HA	2:A:429:LYS:HD3	1.63	0.80
2:E:300:ILE:HA	2:E:303:LYS:HE2	1.64	0.80
2:E:336:ILE:O	2:E:339:LEU:HG	1.81	0.80
2:E:426:ARG:HA	2:E:429:LYS:HD3	1.63	0.80
1:B:195:C:H2'	1:B:195:C:O2	1.79	0.80
2:C:243:ILE:HG23	2:C:269:PHE:C	2.00	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:27:ILE:O	2:G:30:LEU:HG	1.82	0.80
2:A:27:ILE:O	2:A:30:LEU:HG	1.82	0.80
2:C:107:SER:C	2:C:109:LYS:H	1.84	0.80
2:E:107:SER:C	2:E:109:LYS:H	1.84	0.80
2:G:120:TYR:HA	2:G:123:ARG:HG3	1.63	0.80
2:G:315:LYS:N	2:G:315:LYS:HE2	1.97	0.80
1:H:195:C:O2	1:H:195:C:H2'	1.79	0.80
2:A:336:ILE:HB	2:A:337:ILE:HD12	1.61	0.80
2:E:120:TYR:HA	2:E:123:ARG:HG3	1.63	0.80
2:A:90:VAL:HG12	2:A:268:LYS:HD3	1.63	0.80
2:C:242:VAL:O	2:C:267:ILE:HA	1.82	0.80
1:B:214:C:C2'	1:B:215:C:H5'	2.12	0.80
2:C:349:LEU:HB3	2:C:350:GLN:NE2	1.97	0.80
2:C:63:VAL:HG22	2:C:351:HIS:HB3	1.64	0.80
2:E:132:ALA:O	2:E:186:THR:HA	1.81	0.80
2:E:242:VAL:O	2:E:267:ILE:HA	1.82	0.80
2:G:300:ILE:HA	2:G:303:LYS:HE2	1.64	0.80
1:H:214:C:C2'	1:H:215:C:H5'	2.12	0.80
2:A:336:ILE:O	2:A:339:LEU:HG	1.81	0.80
2:C:177:ASN:HB3	2:E:144:LEU:HD11	1.62	0.80
2:E:111:THR:OG1	2:E:112:THR:N	2.15	0.80
2:A:162:ASN:HD22	2:E:159:ASN:ND2	1.78	0.80
2:G:111:THR:OG1	2:G:112:THR:N	2.15	0.80
2:C:27:ILE:O	2:C:30:LEU:HG	1.82	0.79
2:E:315:LYS:HE2	2:E:315:LYS:N	1.97	0.79
2:E:390:GLU:O	2:E:392:PRO:HD3	1.82	0.79
2:G:346:SER:C	2:G:350:GLN:HE21	1.85	0.79
2:A:373:LYS:O	2:A:376:ARG:HB2	1.82	0.79
2:A:107:SER:C	2:A:109:LYS:H	1.84	0.79
2:A:111:THR:OG1	2:A:112:THR:N	2.15	0.79
2:C:315:LYS:HE2	2:C:315:LYS:N	1.97	0.79
2:C:346:SER:C	2:C:350:GLN:HE21	1.85	0.79
2:G:417:LEU:HB2	2:G:421:TYR:CZ	2.18	0.79
2:A:99:ILE:HB	2:A:182:ILE:O	1.83	0.79
1:D:214:C:C2'	1:D:215:C:H5'	2.12	0.79
2:E:126:LYS:HB2	2:E:180:ASP:H	1.47	0.79
2:G:349:LEU:HB3	2:G:350:GLN:NE2	1.97	0.79
2:A:300:ILE:HA	2:A:303:LYS:HE2	1.64	0.79
2:A:315:LYS:N	2:A:315:LYS:HE2	1.97	0.79
2:A:346:SER:C	2:A:350:GLN:HE21	1.85	0.79
2:G:63:VAL:HG22	2:G:351:HIS:HB3	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:216:LEU:HD23	2:A:217:VAL:N	1.98	0.79
2:C:300:ILE:HA	2:C:303:LYS:HE2	1.64	0.79
2:C:373:LYS:O	2:C:376:ARG:HB2	1.82	0.79
2:C:37:SER:O	2:C:39:VAL:HG23	1.83	0.79
2:G:99:ILE:HB	2:G:182:ILE:O	1.83	0.79
2:A:126:LYS:HB2	2:A:180:ASP:H	1.47	0.79
2:A:242:VAL:O	2:A:267:ILE:HA	1.82	0.79
2:A:417:LEU:HB2	2:A:421:TYR:CZ	2.18	0.79
2:C:417:LEU:HB2	2:C:421:TYR:CZ	2.18	0.79
2:E:349:LEU:HB3	2:E:350:GLN:NE2	1.97	0.79
2:A:37:SER:O	2:A:39:VAL:HG23	1.83	0.79
2:A:378:LEU:HA	2:A:381:LEU:HD11	1.63	0.79
2:E:373:LYS:O	2:E:376:ARG:HB2	1.82	0.79
2:A:349:LEU:HB3	2:A:350:GLN:NE2	1.97	0.79
2:C:126:LYS:HB2	2:C:180:ASP:H	1.47	0.79
2:C:390:GLU:O	2:C:392:PRO:HD3	1.82	0.79
2:G:216:LEU:HD23	2:G:217:VAL:N	1.98	0.79
2:A:120:TYR:HA	2:A:123:ARG:HG3	1.63	0.79
2:C:59:LYS:NZ	2:C:60:PRO:C	2.36	0.78
2:G:254:GLY:HA2	2:G:257:LEU:HD11	1.65	0.78
2:C:99:ILE:HB	2:C:182:ILE:O	1.83	0.78
2:E:27:ILE:O	2:E:30:LEU:HG	1.82	0.78
2:E:417:LEU:HB2	2:E:421:TYR:CZ	2.18	0.78
2:G:20:GLU:O	2:G:23:VAL:HB	1.84	0.78
2:G:242:VAL:O	2:G:267:ILE:HA	1.82	0.78
2:G:373:LYS:O	2:G:376:ARG:HB2	1.82	0.78
2:C:20:GLU:O	2:C:23:VAL:HB	1.83	0.78
2:C:202:MET:HA	2:C:205:MET:SD	2.24	0.78
2:C:244:ILE:HB	2:C:270:ILE:HD11	1.66	0.78
2:G:390:GLU:O	2:G:392:PRO:HD3	1.82	0.78
2:A:390:GLU:O	2:A:392:PRO:HD3	1.82	0.78
2:G:287:PHE:CZ	2:G:291:ILE:HD12	2.18	0.78
2:A:287:PHE:CZ	2:A:291:ILE:HD12	2.18	0.78
2:C:111:THR:OG1	2:C:112:THR:N	2.15	0.78
2:G:126:LYS:HB2	2:G:180:ASP:H	1.47	0.78
2:A:202:MET:HA	2:A:205:MET:SD	2.24	0.78
2:C:252:LYS:H	2:C:252:LYS:HD2	1.49	0.78
2:E:143:LEU:O	2:E:146:LEU:HG	1.84	0.78
2:E:202:MET:HA	2:E:205:MET:SD	2.24	0.78
2:E:20:GLU:O	2:E:23:VAL:HB	1.83	0.78
2:E:227:TYR:HB2	2:E:259:ALA:HB1	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:287:PHE:CZ	2:C:291:ILE:HD12	2.18	0.78
2:E:99:ILE:HB	2:E:182:ILE:O	1.83	0.78
2:G:202:MET:HA	2:G:205:MET:SD	2.24	0.78
2:G:378:LEU:HA	2:G:381:LEU:HD11	1.63	0.78
2:G:37:SER:O	2:G:39:VAL:HG23	1.83	0.78
2:A:143:LEU:O	2:A:146:LEU:HG	1.84	0.78
2:A:227:TYR:HB2	2:A:259:ALA:HB1	1.66	0.78
2:E:63:VAL:HG22	2:E:351:HIS:HB3	1.64	0.78
2:G:227:TYR:HB2	2:G:259:ALA:HB1	1.66	0.78
2:E:287:PHE:CZ	2:E:291:ILE:HD12	2.18	0.77
2:E:37:SER:O	2:E:39:VAL:HG23	1.83	0.77
2:G:30:LEU:CG	2:G:31:GLN:N	2.47	0.77
2:A:63:VAL:HG22	2:A:351:HIS:HB3	1.64	0.77
2:A:67:LYS:O	2:A:70:PHE:HB3	1.84	0.77
2:C:227:TYR:HB2	2:C:259:ALA:HB1	1.66	0.77
2:E:216:LEU:HD23	2:E:217:VAL:N	1.98	0.77
2:E:391:ASN:O	2:E:394:ILE:HG12	1.84	0.77
2:G:359:LEU:HB3	2:G:360:PRO:CD	2.12	0.77
2:A:20:GLU:O	2:A:23:VAL:HB	1.84	0.77
2:A:252:LYS:H	2:A:252:LYS:HD2	1.49	0.77
2:A:30:LEU:CG	2:A:31:GLN:N	2.47	0.77
2:E:252:LYS:HD2	2:E:252:LYS:H	1.49	0.77
2:G:107:SER:C	2:G:109:LYS:H	1.84	0.77
2:G:244:ILE:HB	2:G:270:ILE:HD11	1.66	0.77
2:G:395:ILE:HD12	2:G:395:ILE:N	1.99	0.77
2:A:159:ASN:CG	2:E:162:ASN:HD22	1.88	0.77
2:A:159:ASN:HB3	2:E:161:GLN:O	1.84	0.77
2:C:30:LEU:CG	2:C:31:GLN:N	2.47	0.77
2:E:417:LEU:HD13	2:E:421:TYR:CE2	2.20	0.77
2:C:120:TYR:HA	2:C:123:ARG:CG	2.15	0.77
2:C:143:LEU:O	2:C:146:LEU:HG	1.84	0.77
2:C:216:LEU:HD23	2:C:217:VAL:N	1.98	0.77
2:E:183:ILE:HD12	2:E:183:ILE:N	2.00	0.77
2:E:244:ILE:HB	2:E:270:ILE:HD11	1.66	0.77
2:E:395:ILE:HD12	2:E:395:ILE:N	1.99	0.77
1:F:214:C:C2'	1:F:215:C:H5'	2.12	0.77
2:G:417:LEU:HD13	2:G:421:TYR:CE2	2.20	0.77
2:A:183:ILE:N	2:A:183:ILE:HD12	2.00	0.77
2:A:254:GLY:HA2	2:A:257:LEU:HD11	1.65	0.77
2:C:183:ILE:N	2:C:183:ILE:HD12	2.00	0.77
2:G:391:ASN:O	2:G:394:ILE:HG12	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:67:LYS:O	2:G:70:PHE:HB3	1.84	0.77
2:A:391:ASN:O	2:A:394:ILE:HG12	1.85	0.77
2:E:425:ASN:ND2	2:E:425:ASN:N	2.24	0.77
2:A:244:ILE:HB	2:A:270:ILE:CD1	2.15	0.77
2:A:5:ILE:C	2:A:7:ASP:H	1.87	0.77
2:C:315:LYS:HB3	2:C:315:LYS:NZ	2.00	0.77
2:C:391:ASN:O	2:C:394:ILE:HG12	1.84	0.77
2:G:183:ILE:N	2:G:183:ILE:HD12	2.00	0.77
2:G:394:ILE:N	2:G:395:ILE:HD12	2.00	0.77
2:A:394:ILE:N	2:A:395:ILE:HD12	2.00	0.77
2:C:254:GLY:HA2	2:C:257:LEU:HD11	1.65	0.77
2:C:417:LEU:HD13	2:C:421:TYR:CE2	2.20	0.77
2:E:315:LYS:HB3	2:E:315:LYS:NZ	2.00	0.77
2:G:143:LEU:O	2:G:146:LEU:HG	1.84	0.77
2:G:417:LEU:HD12	2:G:418:LEU:N	2.00	0.77
2:G:425:ASN:CA	2:G:428:LEU:HB3	2.14	0.77
1:H:197:G:H2'	1:H:198:G:C1'	2.15	0.77
1:B:197:G:H2'	1:B:198:G:C1'	2.15	0.76
2:C:395:ILE:N	2:C:395:ILE:HD12	1.99	0.76
2:C:59:LYS:HZ2	2:C:61:PRO:N	1.83	0.76
2:A:120:TYR:HA	2:A:123:ARG:CG	2.15	0.76
2:A:47:LEU:HG	2:A:51:ILE:HD11	1.68	0.76
2:C:118:TYR:HB2	2:C:276:ILE:HD11	1.68	0.76
2:E:279:LEU:HD12	2:E:280:GLU:N	2.00	0.76
2:E:425:ASN:CA	2:E:428:LEU:HB3	2.14	0.76
2:G:373:LYS:HA	2:G:376:ARG:HG3	1.67	0.76
2:E:143:LEU:HG	2:E:144:LEU:N	2.00	0.76
2:A:244:ILE:HB	2:A:270:ILE:HD11	1.66	0.76
2:A:279:LEU:HD12	2:A:280:GLU:N	2.00	0.76
2:A:425:ASN:CA	2:A:428:LEU:HB3	2.14	0.76
2:C:40:ASN:OD1	2:C:43:LEU:HD21	1.86	0.76
2:C:425:ASN:CA	2:C:428:LEU:HB3	2.15	0.76
2:C:67:LYS:O	2:C:70:PHE:HB3	1.84	0.76
2:E:254:GLY:HA2	2:E:257:LEU:HD11	1.65	0.76
2:A:174:PHE:CA	2:A:177:ASN:ND2	2.49	0.76
2:C:5:ILE:C	2:C:7:ASP:H	1.87	0.76
2:E:30:LEU:CG	2:E:31:GLN:N	2.47	0.76
2:G:256:ALA:O	2:G:260:VAL:HG23	1.86	0.76
2:A:143:LEU:HG	2:A:144:LEU:N	2.00	0.76
2:A:291:ILE:HD13	2:A:291:ILE:H	1.51	0.76
2:A:395:ILE:HD12	2:A:395:ILE:N	1.99	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:417:LEU:HD12	2:A:418:LEU:N	2.00	0.76
2:C:417:LEU:HD12	2:C:418:LEU:N	2.00	0.76
2:C:47:LEU:HG	2:C:51:ILE:HD11	1.68	0.76
2:E:118:TYR:HB2	2:E:276:ILE:HD11	1.67	0.76
2:G:174:PHE:CA	2:G:177:ASN:ND2	2.49	0.76
2:G:252:LYS:HD2	2:G:252:LYS:H	1.49	0.76
2:G:244:ILE:HB	2:G:270:ILE:CD1	2.15	0.76
2:G:47:LEU:HG	2:G:51:ILE:HD11	1.68	0.76
2:A:256:ALA:O	2:A:260:VAL:HG23	1.86	0.76
2:E:195:GLU:HG3	2:E:196:THR:H	1.50	0.76
2:G:120:TYR:HA	2:G:123:ARG:CG	2.15	0.76
2:C:308:GLU:O	2:C:309:GLU:HG3	1.86	0.76
2:G:40:ASN:OD1	2:G:43:LEU:HD21	1.86	0.76
2:A:195:GLU:HG3	2:A:196:THR:H	1.50	0.76
2:C:256:ALA:O	2:C:260:VAL:HG23	1.86	0.76
2:E:67:LYS:O	2:E:70:PHE:HB3	1.84	0.76
2:G:291:ILE:HD13	2:G:291:ILE:H	1.51	0.76
2:A:417:LEU:HD13	2:A:421:TYR:CE2	2.20	0.76
2:E:120:TYR:HA	2:E:123:ARG:CG	2.15	0.76
2:E:267:ILE:HD12	2:E:267:ILE:N	2.01	0.76
2:G:118:TYR:HB2	2:G:276:ILE:HD11	1.68	0.76
2:G:267:ILE:N	2:G:267:ILE:HD12	2.01	0.76
2:G:348:VAL:HG23	2:G:349:LEU:H	1.51	0.76
2:A:118:TYR:HB2	2:A:276:ILE:HD11	1.68	0.75
2:A:373:LYS:HA	2:A:376:ARG:HG3	1.67	0.75
2:C:244:ILE:HB	2:C:270:ILE:CD1	2.15	0.75
2:A:376:ARG:HH21	2:A:376:ARG:HG3	1.51	0.75
2:C:267:ILE:N	2:C:267:ILE:HD12	2.01	0.75
2:E:207:ASP:O	2:E:208:VAL:HG13	1.87	0.75
2:E:244:ILE:HB	2:E:270:ILE:CD1	2.15	0.75
2:E:47:LEU:HG	2:E:51:ILE:HD11	1.68	0.75
2:G:348:VAL:HG23	2:G:349:LEU:N	2.01	0.75
2:G:5:ILE:C	2:G:7:ASP:H	1.87	0.75
2:A:267:ILE:N	2:A:267:ILE:HD12	2.01	0.75
2:C:195:GLU:HG3	2:C:196:THR:H	1.50	0.75
2:C:279:LEU:HD12	2:C:280:GLU:N	2.00	0.75
2:C:394:ILE:N	2:C:395:ILE:HD12	2.00	0.75
2:E:308:GLU:O	2:E:309:GLU:HG3	1.86	0.75
2:E:417:LEU:HD12	2:E:418:LEU:N	2.01	0.75
2:G:143:LEU:HG	2:G:144:LEU:N	2.00	0.75
2:G:257:LEU:O	2:G:261:VAL:HG23	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:348:VAL:HG23	2:A:349:LEU:N	2.01	0.75
2:A:40:ASN:OD1	2:A:43:LEU:HD21	1.86	0.75
1:D:197:G:H2'	1:D:198:G:C1'	2.15	0.75
2:E:389:LEU:HD23	2:E:389:LEU:N	2.01	0.75
1:F:197:G:H2'	1:F:198:G:C1'	2.15	0.75
2:C:359:LEU:HB3	2:C:360:PRO:CD	2.12	0.75
2:E:256:ALA:O	2:E:260:VAL:HG23	1.86	0.75
1:F:214:C:H2'	1:F:215:C:C5'	2.16	0.75
2:A:257:LEU:O	2:A:261:VAL:HG23	1.87	0.75
2:C:257:LEU:O	2:C:261:VAL:HG23	1.87	0.75
2:G:115:LYS:HZ3	2:G:278:GLU:CB	1.98	0.75
2:G:279:LEU:HD12	2:G:280:GLU:N	2.00	0.75
2:G:315:LYS:HB3	2:G:315:LYS:NZ	2.00	0.75
2:C:414:VAL:O	2:C:417:LEU:CG	2.35	0.75
2:C:417:LEU:HB2	2:C:421:TYR:HH	1.48	0.75
2:E:357:ILE:HD12	2:E:357:ILE:N	2.02	0.75
2:E:394:ILE:N	2:E:395:ILE:HD12	2.00	0.75
2:G:195:GLU:HG3	2:G:196:THR:H	1.50	0.75
2:A:154:VAL:HG12	2:A:155:TYR:N	2.02	0.75
2:E:174:PHE:CA	2:E:177:ASN:ND2	2.49	0.75
2:E:348:VAL:HG23	2:E:349:LEU:N	2.01	0.75
2:E:380:ALA:HA	2:E:383:SER:HB2	1.69	0.75
2:G:269:PHE:CB	2:G:279:LEU:HD11	2.17	0.75
2:A:48:THR:CA	2:A:51:ILE:HD12	2.15	0.75
2:C:304:VAL:HG13	2:C:308:GLU:HG2	1.69	0.75
2:E:376:ARG:HH11	2:E:409:LEU:CD2	2.00	0.75
2:E:40:ASN:OD1	2:E:43:LEU:HD21	1.86	0.75
2:E:5:ILE:C	2:E:7:ASP:H	1.87	0.75
2:A:315:LYS:NZ	2:A:315:LYS:HB3	2.00	0.74
2:E:291:ILE:HD13	2:E:291:ILE:H	1.51	0.74
2:G:376:ARG:HH11	2:G:409:LEU:CD2	2.00	0.74
2:C:177:ASN:ND2	2:E:144:LEU:HD11	2.01	0.74
2:C:380:ALA:HA	2:C:383:SER:HB2	1.69	0.74
2:A:151:GLY:HA2	2:G:151:GLY:HA2	0.82	0.74
1:B:216:G:H2'	1:B:217:U:H5''	1.70	0.74
2:C:174:PHE:CA	2:C:177:ASN:ND2	2.49	0.74
2:C:54:ARG:HH11	2:C:73:ILE:HG23	1.52	0.74
2:E:54:ARG:HH11	2:E:73:ILE:HG23	1.52	0.74
2:G:154:VAL:HG12	2:G:155:TYR:N	2.02	0.74
2:G:389:LEU:N	2:G:389:LEU:HD23	2.01	0.74
2:A:348:VAL:HG23	2:A:349:LEU:H	1.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:143:LEU:HG	2:C:144:LEU:N	2.00	0.74
2:C:291:ILE:H	2:C:291:ILE:HD13	1.51	0.74
2:C:347:LYS:O	2:C:351:HIS:HB2	1.88	0.74
2:C:357:ILE:N	2:C:357:ILE:HD12	2.02	0.74
2:C:373:LYS:HA	2:C:376:ARG:HG3	1.68	0.74
2:E:257:LEU:O	2:E:261:VAL:HG23	1.87	0.74
2:E:55:LEU:CD2	2:E:55:LEU:H	2.01	0.74
1:H:216:G:H2'	1:H:217:U:H5''	1.69	0.74
2:A:389:LEU:N	2:A:389:LEU:HD23	2.01	0.74
2:C:207:ASP:O	2:C:208:VAL:HG13	1.87	0.74
2:G:28:LYS:O	2:G:32:LYS:N	2.20	0.74
2:G:376:ARG:HG3	2:G:376:ARG:HH21	1.51	0.74
2:A:269:PHE:CB	2:A:279:LEU:HD11	2.17	0.74
2:A:347:LYS:O	2:A:351:HIS:HB2	1.88	0.74
2:A:414:VAL:O	2:A:417:LEU:CG	2.35	0.74
1:B:214:C:H2'	1:B:215:C:C5'	2.16	0.74
1:D:214:C:H2'	1:D:215:C:C5'	2.16	0.74
2:G:207:ASP:O	2:G:208:VAL:HG13	1.87	0.74
2:A:207:ASP:O	2:A:208:VAL:HG13	1.87	0.74
2:A:338:ALA:O	2:A:342:MET:N	2.21	0.74
2:A:357:ILE:HD12	2:A:357:ILE:N	2.02	0.74
2:A:55:LEU:CD2	2:A:55:LEU:H	2.01	0.74
2:E:28:LYS:O	2:E:32:LYS:N	2.20	0.74
2:G:143:LEU:CG	2:G:144:LEU:N	2.51	0.74
2:G:347:LYS:O	2:G:351:HIS:HB2	1.88	0.74
2:A:143:LEU:CG	2:A:144:LEU:N	2.51	0.74
2:A:376:ARG:HH11	2:A:409:LEU:CD2	2.00	0.74
2:C:28:LYS:O	2:C:32:LYS:N	2.20	0.74
2:C:348:VAL:HG23	2:C:349:LEU:N	2.01	0.74
2:C:348:VAL:HG23	2:C:349:LEU:H	1.51	0.74
2:E:376:ARG:HG3	2:E:376:ARG:HH21	1.51	0.74
2:A:54:ARG:HH11	2:A:73:ILE:HG23	1.52	0.74
2:C:154:VAL:HG12	2:C:155:TYR:N	2.02	0.74
2:C:24:ASP:O	2:C:27:ILE:HB	1.88	0.74
2:E:177:ASN:HB2	2:E:179:MET:SD	2.28	0.74
2:E:47:LEU:O	2:E:51:ILE:HG13	1.88	0.74
2:G:177:ASN:HB2	2:G:179:MET:SD	2.28	0.74
2:G:24:ASP:O	2:G:27:ILE:HB	1.88	0.74
2:G:55:LEU:H	2:G:55:LEU:CD2	2.01	0.74
2:A:177:ASN:HB2	2:A:179:MET:SD	2.28	0.74
2:A:24:ASP:O	2:A:27:ILE:HB	1.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:389:LEU:N	2:C:389:LEU:HD23	2.01	0.74
2:E:219:ASP:O	2:E:222:ILE:HG22	1.88	0.74
2:E:373:LYS:HA	2:E:376:ARG:HG3	1.67	0.74
2:C:376:ARG:HH11	2:C:409:LEU:CD2	2.00	0.73
2:C:55:LEU:H	2:C:55:LEU:CD2	2.01	0.73
2:G:414:VAL:HA	2:G:417:LEU:CG	2.18	0.73
2:C:177:ASN:HB2	2:C:179:MET:SD	2.28	0.73
2:E:99:ILE:HG21	2:E:183:ILE:HG23	1.70	0.73
2:G:47:LEU:O	2:G:51:ILE:HG13	1.88	0.73
2:G:54:ARG:HH11	2:G:73:ILE:HG23	1.52	0.73
2:C:47:LEU:O	2:C:51:ILE:HG13	1.88	0.73
2:G:129:LEU:HD13	2:G:154:VAL:HG22	1.70	0.73
2:G:219:ASP:O	2:G:222:ILE:HG22	1.88	0.73
2:G:59:LYS:HD3	2:G:59:LYS:O	1.88	0.73
2:A:380:ALA:HA	2:A:383:SER:HB2	1.69	0.73
2:C:129:LEU:HD13	2:C:154:VAL:HG22	1.70	0.73
2:C:263:THR:OG1	2:C:265:ALA:HB2	1.88	0.73
2:C:271:GLY:CA	2:C:279:LEU:HA	2.19	0.73
1:D:216:G:H2'	1:D:217:U:H5''	1.70	0.73
2:G:357:ILE:HD12	2:G:357:ILE:N	2.02	0.73
2:A:414:VAL:HA	2:A:417:LEU:CG	2.18	0.73
2:C:219:ASP:O	2:C:222:ILE:HG22	1.88	0.73
2:E:263:THR:OG1	2:E:265:ALA:HB2	1.88	0.73
2:E:271:GLY:CA	2:E:279:LEU:HA	2.19	0.73
2:C:329:LEU:HA	2:C:332:VAL:CG2	2.18	0.73
2:E:300:ILE:O	2:E:342:MET:HG3	1.89	0.73
2:G:369:ILE:HG22	2:G:373:LYS:HZ2	1.53	0.73
2:G:380:ALA:HA	2:G:383:SER:HB2	1.69	0.73
2:G:414:VAL:O	2:G:417:LEU:CG	2.35	0.73
1:H:214:C:H2'	1:H:215:C:C5'	2.16	0.73
2:C:269:PHE:CB	2:C:279:LEU:HD11	2.17	0.73
2:E:338:ALA:O	2:E:342:MET:N	2.21	0.73
2:E:347:LYS:O	2:E:351:HIS:HB2	1.88	0.73
2:E:414:VAL:HA	2:E:417:LEU:CG	2.18	0.73
2:E:59:LYS:O	2:E:59:LYS:HD3	1.88	0.73
2:G:374:ILE:C	2:G:376:ARG:H	1.92	0.73
2:A:28:LYS:O	2:A:32:LYS:N	2.20	0.73
2:A:340:ARG:NH1	2:A:345:LEU:HB2	2.04	0.73
2:C:340:ARG:NH1	2:C:345:LEU:HB2	2.04	0.73
2:C:159:ASN:ND2	2:G:162:ASN:HD22	1.87	0.73
2:A:252:LYS:N	2:A:252:LYS:HD2	2.04	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:374:ILE:C	2:A:376:ARG:H	1.92	0.73
1:B:197:G:H22	2:A:407:SER:CA	2.01	0.73
2:C:99:ILE:HG21	2:C:183:ILE:HG23	1.71	0.73
2:G:340:ARG:NH1	2:G:345:LEU:HB2	2.04	0.73
2:C:8:ALA:HA	2:C:11:LYS:HB3	1.71	0.73
2:C:129:LEU:N	2:C:129:LEU:HD12	2.04	0.73
2:C:224:GLN:HA	2:C:259:ALA:HB2	1.71	0.73
2:E:113:ALA:O	2:E:116:LEU:HB3	1.89	0.73
2:E:94:LYS:C	2:E:95:LEU:HD12	2.10	0.73
2:A:115:LYS:HA	2:A:118:TYR:CD2	2.24	0.72
2:C:115:LYS:HA	2:C:118:TYR:CD2	2.24	0.72
2:C:138:ALA:O	2:C:139:ALA:O	2.07	0.72
2:C:252:LYS:N	2:C:252:LYS:HD2	2.04	0.72
2:C:369:ILE:HG22	2:C:373:LYS:HZ2	1.54	0.72
1:D:197:G:H22	2:C:407:SER:CA	2.01	0.72
2:E:129:LEU:N	2:E:129:LEU:HD12	2.04	0.72
2:E:269:PHE:CB	2:E:279:LEU:HD11	2.17	0.72
2:G:8:ALA:HA	2:G:11:LYS:HB3	1.71	0.72
2:G:263:THR:OG1	2:G:265:ALA:HB2	1.88	0.72
2:A:414:VAL:HA	2:A:417:LEU:HG	1.70	0.72
2:C:48:THR:CA	2:C:51:ILE:HD12	2.15	0.72
2:E:129:LEU:HD13	2:E:154:VAL:HG22	1.70	0.72
2:C:144:LEU:HD11	2:E:177:ASN:CG	2.09	0.72
2:E:329:LEU:HA	2:E:332:VAL:CG2	2.18	0.72
2:E:374:ILE:C	2:E:376:ARG:H	1.92	0.72
2:G:300:ILE:O	2:G:342:MET:HG3	1.89	0.72
2:A:129:LEU:HD13	2:A:154:VAL:HG22	1.70	0.72
2:C:414:VAL:HA	2:C:417:LEU:CG	2.19	0.72
2:E:252:LYS:HD2	2:E:252:LYS:N	2.04	0.72
2:E:24:ASP:O	2:E:27:ILE:HB	1.88	0.72
1:F:213:A:H2'	1:F:214:C:C6	2.24	0.72
1:H:213:A:H2'	1:H:214:C:C6	2.24	0.72
2:C:113:ALA:O	2:C:116:LEU:HB3	1.89	0.72
2:C:123:ARG:CB	2:C:123:ARG:HH11	2.02	0.72
2:C:26:PHE:CD2	2:C:27:ILE:HD13	2.25	0.72
2:C:374:ILE:C	2:C:376:ARG:H	1.92	0.72
2:E:115:LYS:HA	2:E:118:TYR:CD2	2.24	0.72
2:E:154:VAL:HG12	2:E:155:TYR:N	2.02	0.72
2:E:348:VAL:HG23	2:E:349:LEU:H	1.51	0.72
1:F:216:G:H2'	1:F:217:U:H5''	1.70	0.72
2:G:123:ARG:HH11	2:G:123:ARG:CB	2.02	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:224:GLN:HA	2:G:259:ALA:HB2	1.71	0.72
2:A:219:ASP:O	2:A:222:ILE:HG22	1.88	0.72
2:A:300:ILE:O	2:A:342:MET:HG3	1.89	0.72
2:C:143:LEU:CG	2:C:144:LEU:N	2.51	0.72
2:C:94:LYS:C	2:C:95:LEU:HD12	2.09	0.72
2:E:126:LYS:HB2	2:E:180:ASP:N	2.05	0.72
2:E:138:ALA:O	2:E:139:ALA:O	2.07	0.72
2:E:340:ARG:NH1	2:E:345:LEU:HB2	2.04	0.72
2:E:8:ALA:HA	2:E:11:LYS:HB3	1.71	0.72
2:E:300:ILE:CA	2:E:303:LYS:HE2	2.20	0.72
2:G:129:LEU:N	2:G:129:LEU:HD12	2.04	0.72
1:H:216:G:H2'	1:H:217:U:C4'	2.20	0.72
2:A:94:LYS:C	2:A:95:LEU:HD12	2.09	0.72
2:C:74:VAL:HG22	2:C:75:TYR:H	1.55	0.72
2:E:197:LYS:O	2:E:200:GLU:HB3	1.89	0.72
2:E:271:GLY:HA3	2:E:279:LEU:HA	1.72	0.72
1:F:216:G:H2'	1:F:217:U:C4'	2.20	0.72
2:G:115:LYS:HA	2:G:118:TYR:CD2	2.24	0.72
2:G:252:LYS:HD2	2:G:252:LYS:N	2.04	0.72
2:A:271:GLY:CA	2:A:279:LEU:HA	2.19	0.72
2:C:71:ILE:O	2:C:74:VAL:N	2.23	0.72
2:E:224:GLN:HA	2:E:259:ALA:HB2	1.71	0.72
2:G:271:GLY:HA3	2:G:279:LEU:HA	1.72	0.72
2:A:224:GLN:HA	2:A:259:ALA:HB2	1.71	0.72
2:A:263:THR:OG1	2:A:265:ALA:HB2	1.88	0.72
2:C:271:GLY:HA3	2:C:279:LEU:HA	1.71	0.72
1:D:216:G:H2'	1:D:217:U:C4'	2.20	0.72
2:E:143:LEU:CG	2:E:144:LEU:N	2.51	0.72
2:E:414:VAL:HA	2:E:417:LEU:HG	1.70	0.72
1:F:215:C:H2'	1:F:216:G:O4'	1.90	0.72
2:G:126:LYS:HB2	2:G:180:ASP:N	2.05	0.72
2:G:26:PHE:CD2	2:G:27:ILE:HD13	2.25	0.72
2:G:48:THR:CA	2:G:51:ILE:HD12	2.15	0.72
2:A:106:GLY:CA	2:A:109:LYS:HB2	2.20	0.72
2:A:8:ALA:HA	2:A:11:LYS:HB3	1.71	0.72
2:A:126:LYS:HB2	2:A:180:ASP:N	2.05	0.72
2:A:26:PHE:CD2	2:A:27:ILE:HD13	2.25	0.72
2:A:426:ARG:O	2:A:429:LYS:HG2	1.90	0.72
2:A:99:ILE:HG21	2:A:183:ILE:HG23	1.70	0.72
1:B:213:A:H2'	1:B:214:C:C6	2.24	0.72
1:B:216:G:H2'	1:B:217:U:C4'	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:126:LYS:HB2	2:C:180:ASP:N	2.05	0.72
2:E:369:ILE:HG22	2:E:373:LYS:HZ2	1.55	0.72
2:E:59:LYS:NZ	2:E:61:PRO:CA	2.52	0.72
1:F:216:G:H2'	1:F:217:U:C5'	2.20	0.72
2:G:271:GLY:CA	2:G:279:LEU:HA	2.19	0.72
2:G:94:LYS:C	2:G:95:LEU:HD12	2.09	0.72
2:G:99:ILE:HG21	2:G:183:ILE:HG23	1.70	0.72
2:A:129:LEU:N	2:A:129:LEU:HD12	2.04	0.71
2:A:197:LYS:O	2:A:200:GLU:HB3	1.89	0.71
2:A:300:ILE:CA	2:A:303:LYS:HE2	2.20	0.71
2:A:418:LEU:HA	2:A:421:TYR:CD2	2.25	0.71
2:C:300:ILE:CA	2:C:303:LYS:HE2	2.20	0.71
2:C:346:SER:O	2:C:348:VAL:N	2.23	0.71
2:E:123:ARG:CB	2:E:123:ARG:HH11	2.02	0.71
1:F:211:C:H4'	2:E:402:ARG:HG3	1.72	0.71
2:G:418:LEU:HA	2:G:421:TYR:CD2	2.25	0.71
2:G:74:VAL:HG22	2:G:75:TYR:H	1.55	0.71
1:H:211:C:H4'	2:G:402:ARG:HG3	1.72	0.71
2:A:113:ALA:O	2:A:116:LEU:HB3	1.89	0.71
2:A:271:GLY:HA3	2:A:279:LEU:HA	1.72	0.71
2:A:48:THR:O	2:A:51:ILE:HB	1.91	0.71
2:C:151:GLY:HA2	2:E:151:GLY:CA	2.20	0.71
2:C:376:ARG:HG3	2:C:376:ARG:HH21	1.51	0.71
2:C:426:ARG:O	2:C:429:LYS:HG2	1.90	0.71
1:D:215:C:H2'	1:D:216:G:O4'	1.90	0.71
2:C:177:ASN:HB3	2:E:144:LEU:CD1	2.20	0.71
2:E:201:GLU:O	2:E:205:MET:HG3	1.90	0.71
1:F:197:G:H22	2:E:407:SER:CA	2.01	0.71
2:A:123:ARG:HH11	2:A:123:ARG:CB	2.02	0.71
2:A:24:ASP:HA	2:A:27:ILE:CG1	2.20	0.71
2:A:377:TRP:CH2	2:A:417:LEU:HB3	2.26	0.71
2:A:47:LEU:O	2:A:51:ILE:HG13	1.88	0.71
1:B:211:C:H4'	2:A:402:ARG:HG3	1.72	0.71
2:C:340:ARG:HD3	2:C:375:ARG:NH2	2.05	0.71
2:C:300:ILE:O	2:C:342:MET:HG3	1.89	0.71
1:D:213:A:H2'	1:D:214:C:C6	2.24	0.71
2:E:346:SER:O	2:E:348:VAL:N	2.23	0.71
2:E:426:ARG:O	2:E:429:LYS:HG2	1.90	0.71
2:E:74:VAL:HG22	2:E:75:TYR:H	1.55	0.71
2:G:346:SER:O	2:G:348:VAL:N	2.23	0.71
2:A:201:GLU:O	2:A:205:MET:HG3	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:71:ILE:O	2:A:74:VAL:N	2.23	0.71
2:E:414:VAL:O	2:E:417:LEU:CG	2.35	0.71
2:G:113:ALA:O	2:G:116:LEU:HB3	1.90	0.71
2:G:138:ALA:O	2:G:139:ALA:O	2.07	0.71
2:G:71:ILE:O	2:G:74:VAL:N	2.23	0.71
1:B:215:C:H2'	1:B:216:G:O4'	1.90	0.71
2:C:276:ILE:HG23	2:C:277:ASP:OD1	1.90	0.71
2:C:337:ILE:N	2:C:337:ILE:HD12	2.05	0.71
2:G:106:GLY:CA	2:G:109:LYS:HB2	2.20	0.71
2:G:197:LYS:O	2:G:200:GLU:HB3	1.89	0.71
1:H:197:G:H22	2:G:407:SER:CA	2.01	0.71
2:G:414:VAL:HA	2:G:417:LEU:HG	1.70	0.71
2:G:426:ARG:O	2:G:429:LYS:HG2	1.90	0.71
2:A:74:VAL:HG22	2:A:75:TYR:H	1.55	0.71
2:C:197:LYS:O	2:C:200:GLU:HB3	1.89	0.71
2:E:26:PHE:CD2	2:E:27:ILE:HD13	2.25	0.71
2:E:337:ILE:HD12	2:E:337:ILE:N	2.05	0.71
1:H:216:G:H2'	1:H:217:U:C5'	2.20	0.71
2:C:191:GLY:O	2:C:195:GLU:N	2.24	0.71
2:E:359:LEU:HB3	2:E:360:PRO:CD	2.12	0.71
2:G:261:VAL:O	2:G:263:THR:N	2.24	0.71
2:G:315:LYS:H	2:G:315:LYS:HE2	1.56	0.71
2:G:377:TRP:CH2	2:G:417:LEU:HB3	2.26	0.71
2:G:48:THR:O	2:G:51:ILE:HB	1.91	0.71
2:A:115:LYS:HA	2:A:118:TYR:HB3	1.73	0.71
2:A:137:PRO:O	2:A:139:ALA:N	2.23	0.71
2:A:138:ALA:O	2:A:139:ALA:O	2.07	0.71
2:A:340:ARG:HD3	2:A:375:ARG:NH2	2.06	0.71
2:A:346:SER:O	2:A:348:VAL:N	2.23	0.71
1:B:216:G:H2'	1:B:217:U:C5'	2.20	0.71
2:C:24:ASP:HA	2:C:27:ILE:CG1	2.20	0.71
2:C:377:TRP:CH2	2:C:417:LEU:HB3	2.26	0.71
2:C:414:VAL:HA	2:C:417:LEU:HG	1.70	0.71
1:F:180:G:OP1	1:F:180:G:H4'	1.91	0.71
2:G:369:ILE:HG22	2:G:373:LYS:HZ1	1.55	0.71
2:G:91:ASN:CB	2:G:92:PRO:HD2	2.20	0.71
1:H:180:G:H4'	1:H:180:G:OP1	1.91	0.71
1:D:211:C:H4'	2:C:402:ARG:HG3	1.72	0.71
2:E:106:GLY:CA	2:E:109:LYS:HB2	2.20	0.71
2:G:59:LYS:NZ	2:G:61:PRO:CA	2.52	0.71
2:A:337:ILE:HD12	2:A:337:ILE:N	2.05	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:287:PHE:O	2:C:290:ARG:HB3	1.91	0.71
2:C:291:ILE:C	2:C:292:LEU:HG	2.11	0.71
2:G:115:LYS:HA	2:G:118:TYR:HB3	1.73	0.71
2:A:287:PHE:O	2:A:290:ARG:HB3	1.91	0.70
1:B:180:G:OP1	1:B:180:G:H4'	1.91	0.70
2:C:201:GLU:O	2:C:205:MET:HG3	1.90	0.70
2:C:301:LEU:HD23	2:C:302:GLU:N	2.06	0.70
2:E:377:TRP:CH2	2:E:417:LEU:HB3	2.26	0.70
2:E:418:LEU:HA	2:E:421:TYR:CD2	2.25	0.70
2:G:201:GLU:O	2:G:205:MET:HG3	1.90	0.70
2:G:24:ASP:HA	2:G:27:ILE:CG1	2.20	0.70
2:G:287:PHE:O	2:G:290:ARG:HB3	1.91	0.70
2:G:300:ILE:CA	2:G:303:LYS:HE2	2.20	0.70
2:G:338:ALA:O	2:G:342:MET:N	2.21	0.70
1:H:215:C:H2'	1:H:216:G:O4'	1.90	0.70
2:A:261:VAL:O	2:A:263:THR:N	2.24	0.70
2:A:301:LEU:HD23	2:A:302:GLU:N	2.06	0.70
2:C:418:LEU:HA	2:C:421:TYR:CD2	2.25	0.70
1:D:180:G:OP1	1:D:180:G:H4'	1.91	0.70
2:E:137:PRO:O	2:E:139:ALA:N	2.23	0.70
2:E:315:LYS:HE2	2:E:315:LYS:H	1.56	0.70
2:G:301:LEU:HD23	2:G:302:GLU:N	2.06	0.70
2:A:71:ILE:O	2:A:72:SER:C	2.30	0.70
2:C:369:ILE:HG22	2:C:373:LYS:HZ1	1.55	0.70
2:E:24:ASP:HA	2:E:27:ILE:CG1	2.20	0.70
2:E:71:ILE:O	2:E:74:VAL:N	2.23	0.70
2:G:269:PHE:HB3	2:G:279:LEU:CD1	2.20	0.70
2:A:269:PHE:HB3	2:A:279:LEU:CD1	2.20	0.70
2:A:276:ILE:HG23	2:A:277:ASP:OD1	1.90	0.70
2:C:106:GLY:CA	2:C:109:LYS:HB2	2.20	0.70
2:C:269:PHE:HB3	2:C:279:LEU:CD1	2.20	0.70
2:G:276:ILE:HG23	2:G:277:ASP:OD1	1.90	0.70
2:G:329:LEU:HA	2:G:332:VAL:CG2	2.17	0.70
2:A:115:LYS:HE2	2:A:275:LYS:O	1.92	0.70
2:A:59:LYS:NZ	2:A:60:PRO:O	2.23	0.70
2:C:115:LYS:HA	2:C:118:TYR:HB3	1.73	0.70
2:E:171:VAL:O	2:E:174:PHE:CD2	2.45	0.70
2:E:301:LEU:HD23	2:E:302:GLU:N	2.06	0.70
2:E:369:ILE:HG22	2:E:373:LYS:HZ1	1.54	0.70
1:F:193:G:H2'	1:F:194:C:C6	2.27	0.70
2:G:145:GLN:HB2	2:G:146:LEU:CD2	2.19	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:385:THR:N	2:C:388:GLU:OE1	2.25	0.70
2:C:71:ILE:O	2:C:72:SER:C	2.30	0.70
1:D:216:G:H2'	1:D:217:U:C5'	2.20	0.70
2:E:226:ALA:O	2:E:227:TYR:C	2.30	0.70
2:E:276:ILE:HG23	2:E:277:ASP:OD1	1.90	0.70
2:E:354:GLY:HA2	2:E:368:LYS:HG3	1.73	0.70
2:E:340:ARG:HD3	2:E:375:ARG:NH2	2.05	0.70
2:G:59:LYS:HZ1	2:G:61:PRO:CA	2.01	0.70
2:G:71:ILE:O	2:G:72:SER:C	2.30	0.70
2:A:195:GLU:HG3	2:A:232:ARG:HH11	1.57	0.70
2:A:291:ILE:C	2:A:292:LEU:HG	2.11	0.70
2:A:56:ASN:O	2:A:57:LYS:HG3	1.91	0.70
2:C:226:ALA:O	2:C:227:TYR:C	2.30	0.70
2:E:191:GLY:O	2:E:195:GLU:N	2.24	0.70
2:E:287:PHE:O	2:E:290:ARG:HB3	1.91	0.70
2:E:385:THR:N	2:E:388:GLU:OE1	2.25	0.70
2:E:397:LYS:O	2:E:401:ARG:HG3	1.92	0.70
2:E:48:THR:CA	2:E:51:ILE:HD12	2.15	0.70
2:G:171:VAL:O	2:G:174:PHE:CD2	2.45	0.70
2:G:337:ILE:HD12	2:G:337:ILE:N	2.05	0.70
2:G:56:ASN:O	2:G:57:LYS:HG3	1.91	0.70
2:A:146:LEU:HD23	2:A:146:LEU:N	2.06	0.70
2:G:43:LEU:H	2:G:43:LEU:CD2	1.84	0.70
2:A:171:VAL:O	2:A:174:PHE:CD2	2.45	0.70
2:A:329:LEU:HA	2:A:332:VAL:CG2	2.17	0.70
2:A:354:GLY:HA2	2:A:368:LYS:HG3	1.73	0.70
2:A:359:LEU:HB3	2:A:360:PRO:CD	2.12	0.70
2:A:396:ASP:OD2	2:A:399:ARG:HB2	1.92	0.70
2:C:145:GLN:HB2	2:C:146:LEU:CD2	2.19	0.70
2:C:146:LEU:N	2:C:146:LEU:HD23	2.06	0.70
2:C:171:VAL:O	2:C:174:PHE:CD2	2.45	0.70
2:C:396:ASP:OD2	2:C:399:ARG:HB2	1.92	0.70
2:C:48:THR:O	2:C:51:ILE:HB	1.91	0.70
1:D:193:G:H2'	1:D:194:C:C6	2.27	0.70
2:E:43:LEU:N	2:E:43:LEU:HD23	2.04	0.70
2:E:63:VAL:O	2:E:64:LEU:HB2	1.92	0.70
2:G:191:GLY:O	2:G:195:GLU:N	2.24	0.70
2:A:140:TYR:O	2:A:143:LEU:HG	1.92	0.70
2:C:336:ILE:HG21	2:C:378:LEU:HD12	1.74	0.70
2:G:291:ILE:C	2:G:292:LEU:HG	2.11	0.70
2:A:46:SER:O	2:A:49:ALA:HB3	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:397:LYS:O	2:C:401:ARG:HG3	1.92	0.69
2:E:115:LYS:HE2	2:E:275:LYS:O	1.92	0.69
2:E:396:ASP:OD2	2:E:399:ARG:HB2	1.92	0.69
2:E:71:ILE:O	2:E:72:SER:C	2.30	0.69
2:G:195:GLU:HG3	2:G:232:ARG:HH11	1.57	0.69
2:G:425:ASN:O	2:G:429:LYS:N	2.26	0.69
2:A:105:GLN:CD	2:A:106:GLY:H	1.96	0.69
2:C:144:LEU:CD1	2:E:177:ASN:CB	2.70	0.69
2:C:297:ILE:HD12	2:C:298:GLU:N	2.07	0.69
2:C:46:SER:O	2:C:49:ALA:HB3	1.92	0.69
2:G:143:LEU:O	2:G:145:GLN:N	2.25	0.69
2:G:115:LYS:HE2	2:G:275:LYS:O	1.92	0.69
2:G:281:THR:HG22	2:G:282:PHE:H	1.57	0.69
2:G:397:LYS:O	2:G:401:ARG:HG3	1.92	0.69
2:A:191:GLY:O	2:A:195:GLU:N	2.24	0.69
2:A:63:VAL:O	2:A:64:LEU:HB2	1.92	0.69
2:C:56:ASN:O	2:C:57:LYS:HG3	1.91	0.69
2:C:99:ILE:O	2:C:99:ILE:HG22	1.92	0.69
2:E:297:ILE:HD12	2:E:298:GLU:N	2.08	0.69
2:G:415:ARG:HA	2:G:418:LEU:HD12	1.75	0.69
2:G:46:SER:O	2:G:49:ALA:HB3	1.92	0.69
2:A:315:LYS:H	2:A:315:LYS:HE2	1.56	0.69
2:A:339:LEU:HA	2:A:342:MET:HB3	1.74	0.69
2:A:397:LYS:O	2:A:401:ARG:HG3	1.92	0.69
1:B:208:G:H2'	1:B:209:A:C8	2.28	0.69
2:C:233:PHE:C	2:C:235:GLN:N	2.43	0.69
2:C:339:LEU:HA	2:C:342:MET:HB3	1.74	0.69
2:C:415:ARG:HA	2:C:418:LEU:HD12	1.75	0.69
2:C:177:ASN:HB3	2:E:144:LEU:HD21	1.73	0.69
2:E:195:GLU:HG3	2:E:232:ARG:HH11	1.57	0.69
2:E:340:ARG:CD	2:E:375:ARG:HH21	2.06	0.69
2:G:105:GLN:CD	2:G:106:GLY:H	1.96	0.69
2:G:110:THR:O	2:G:111:THR:C	2.31	0.69
2:G:169:LYS:O	2:G:170:GLY:O	2.11	0.69
2:G:336:ILE:HG21	2:G:378:LEU:HD12	1.74	0.69
2:C:115:LYS:HE2	2:C:275:LYS:O	1.92	0.69
2:C:425:ASN:O	2:C:429:LYS:N	2.26	0.69
2:E:110:THR:O	2:E:111:THR:C	2.30	0.69
2:E:291:ILE:C	2:E:292:LEU:HG	2.11	0.69
2:G:193:GLY:C	2:G:195:GLU:H	1.96	0.69
2:G:385:THR:N	2:G:388:GLU:OE1	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:396:ASP:OD2	2:G:399:ARG:HB2	1.92	0.69
1:H:193:G:H2'	1:H:194:C:C6	2.27	0.69
2:A:281:THR:HG22	2:A:282:PHE:H	1.58	0.69
2:A:380:ALA:O	2:A:382:ASN:N	2.26	0.69
2:C:143:LEU:O	2:C:145:GLN:N	2.25	0.69
2:C:63:VAL:O	2:C:64:LEU:HB2	1.92	0.69
2:E:169:LYS:O	2:E:170:GLY:O	2.11	0.69
2:E:269:PHE:HA	2:E:281:THR:O	1.93	0.69
2:E:31:GLN:HA	2:E:34:LEU:CD1	2.22	0.69
2:E:56:ASN:O	2:E:57:LYS:HG3	1.91	0.69
2:G:354:GLY:HA2	2:G:368:LYS:HG3	1.73	0.69
2:A:130:VAL:HB	2:A:184:VAL:HG13	1.75	0.69
2:C:140:TYR:O	2:C:143:LEU:HG	1.92	0.69
2:C:169:LYS:O	2:C:170:GLY:O	2.11	0.69
2:E:140:TYR:O	2:E:143:LEU:HG	1.92	0.69
2:E:261:VAL:O	2:E:263:THR:N	2.24	0.69
2:E:48:THR:O	2:E:51:ILE:HB	1.91	0.69
2:G:140:TYR:O	2:G:143:LEU:HG	1.92	0.69
2:A:115:LYS:CA	2:A:118:TYR:HB3	2.23	0.69
2:A:271:GLY:HA2	2:A:278:GLU:O	1.93	0.69
2:A:415:ARG:HA	2:A:418:LEU:HD12	1.75	0.69
2:C:115:LYS:HZ3	2:C:278:GLU:CB	2.04	0.69
2:C:281:THR:HG22	2:C:282:PHE:H	1.58	0.69
2:C:338:ALA:O	2:C:342:MET:N	2.21	0.69
2:E:143:LEU:O	2:E:145:GLN:N	2.26	0.69
2:C:151:GLY:CA	2:E:151:GLY:HA2	2.23	0.69
2:E:99:ILE:HG22	2:E:99:ILE:O	1.92	0.69
2:G:130:VAL:HB	2:G:184:VAL:HG13	1.75	0.69
2:G:267:ILE:CG2	2:G:268:LYS:H	2.06	0.69
2:A:110:THR:O	2:A:111:THR:C	2.30	0.69
2:A:226:ALA:O	2:A:227:TYR:C	2.30	0.69
2:A:269:PHE:HA	2:A:281:THR:O	1.93	0.69
2:A:28:LYS:HA	2:A:31:GLN:NE2	2.07	0.69
2:A:339:LEU:HD23	2:A:339:LEU:H	1.57	0.69
2:A:73:ILE:O	2:A:76:ASP:HB3	1.93	0.69
2:A:99:ILE:O	2:A:99:ILE:HG22	1.92	0.69
1:B:193:G:H2'	1:B:194:C:C6	2.27	0.69
2:C:115:LYS:CA	2:C:118:TYR:HB3	2.23	0.69
2:C:28:LYS:HA	2:C:31:GLN:NE2	2.07	0.69
2:E:105:GLN:CD	2:E:106:GLY:H	1.96	0.69
2:E:115:LYS:HA	2:E:118:TYR:HB3	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:145:GLN:HB2	2:E:146:LEU:CD2	2.19	0.69
2:E:269:PHE:HB3	2:E:279:LEU:CD1	2.20	0.69
2:E:339:LEU:H	2:E:339:LEU:HD23	1.57	0.69
2:E:425:ASN:O	2:E:429:LYS:N	2.26	0.69
2:G:226:ALA:O	2:G:227:TYR:C	2.30	0.69
2:A:143:LEU:O	2:A:145:GLN:N	2.25	0.69
2:A:336:ILE:HG21	2:A:378:LEU:HD12	1.74	0.69
2:C:105:GLN:CD	2:C:106:GLY:H	1.96	0.69
2:C:137:PRO:O	2:C:139:ALA:N	2.23	0.69
2:C:73:ILE:O	2:C:76:ASP:HB3	1.93	0.69
1:D:208:G:H2'	1:D:209:A:C8	2.28	0.69
1:F:208:G:H2'	1:F:209:A:C8	2.27	0.69
2:G:31:GLN:HA	2:G:34:LEU:CD1	2.22	0.69
2:G:340:ARG:CD	2:G:375:ARG:HH21	2.06	0.69
2:G:340:ARG:HD3	2:G:375:ARG:NH2	2.05	0.69
2:C:130:VAL:HB	2:C:184:VAL:HG13	1.75	0.69
2:A:119:PHE:O	2:A:123:ARG:HG2	1.93	0.68
2:A:267:ILE:CG2	2:A:268:LYS:H	2.06	0.68
2:A:340:ARG:CD	2:A:375:ARG:HH21	2.06	0.68
2:C:110:THR:O	2:C:111:THR:C	2.30	0.68
2:C:195:GLU:HG3	2:C:232:ARG:HH11	1.57	0.68
2:C:271:GLY:HA2	2:C:278:GLU:O	1.93	0.68
2:C:269:PHE:HA	2:C:281:THR:O	1.93	0.68
2:C:354:GLY:HA2	2:C:368:LYS:HG3	1.73	0.68
2:C:59:LYS:HZ2	2:C:60:PRO:C	1.95	0.68
2:E:170:GLY:O	2:E:171:VAL:C	2.32	0.68
2:E:130:VAL:HB	2:E:184:VAL:HG13	1.75	0.68
2:E:233:PHE:C	2:E:235:GLN:N	2.43	0.68
2:E:345:LEU:HG	2:E:346:SER:H	1.58	0.68
2:E:380:ALA:O	2:E:382:ASN:N	2.26	0.68
2:G:380:ALA:O	2:G:382:ASN:N	2.26	0.68
2:A:385:THR:N	2:A:388:GLU:OE1	2.25	0.68
2:C:315:LYS:HE2	2:C:315:LYS:H	1.56	0.68
2:G:269:PHE:HD1	2:G:281:THR:HA	1.58	0.68
2:G:417:LEU:HD13	2:G:421:TYR:HE2	1.59	0.68
2:G:73:ILE:O	2:G:76:ASP:HB3	1.93	0.68
2:A:145:GLN:HB2	2:A:146:LEU:CD2	2.19	0.68
2:C:269:PHE:HD1	2:C:281:THR:HA	1.59	0.68
2:E:28:LYS:HA	2:E:31:GLN:NE2	2.07	0.68
2:E:415:ARG:HA	2:E:418:LEU:HD12	1.75	0.68
2:G:115:LYS:CA	2:G:118:TYR:HB3	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:419:GLU:C	2:G:421:TYR:N	2.47	0.68
2:G:119:PHE:O	2:G:123:ARG:HG2	1.93	0.68
2:G:63:VAL:O	2:G:64:LEU:HB2	1.92	0.68
2:A:417:LEU:HD13	2:A:421:TYR:HE2	1.59	0.68
2:C:232:ARG:O	2:C:233:PHE:HB3	1.94	0.68
2:C:417:LEU:HD13	2:C:421:TYR:HE2	1.59	0.68
2:C:425:ASN:ND2	2:C:426:ARG:H	1.92	0.68
2:C:63:VAL:H	2:C:351:HIS:CE1	2.12	0.68
2:E:166:ILE:HG23	2:E:167:ALA:N	2.09	0.68
2:E:46:SER:O	2:E:49:ALA:HB3	1.92	0.68
2:G:383:SER:O	2:G:384:MET:HG3	1.94	0.68
2:G:63:VAL:H	2:G:351:HIS:CE1	2.12	0.68
2:A:169:LYS:O	2:A:170:GLY:O	2.11	0.68
2:A:193:GLY:C	2:A:195:GLU:H	1.96	0.68
2:A:339:LEU:CD2	2:A:339:LEU:H	2.07	0.68
2:A:345:LEU:HG	2:A:346:SER:H	1.58	0.68
2:A:63:VAL:H	2:A:351:HIS:CE1	2.12	0.68
2:A:86:LYS:HZ1	2:A:89:ASN:ND2	1.91	0.68
2:C:345:LEU:HG	2:C:346:SER:H	1.58	0.68
2:E:115:LYS:CA	2:E:118:TYR:HB3	2.23	0.68
2:E:193:GLY:C	2:E:195:GLU:H	1.96	0.68
2:E:243:ILE:HG23	2:E:269:PHE:O	1.93	0.68
2:E:269:PHE:HD1	2:E:281:THR:HA	1.59	0.68
2:E:281:THR:HG22	2:E:282:PHE:H	1.58	0.68
2:E:40:ASN:CG	2:E:43:LEU:HD21	2.14	0.68
2:E:425:ASN:ND2	2:E:426:ARG:H	1.92	0.68
2:G:271:GLY:HA2	2:G:278:GLU:O	1.93	0.68
2:G:297:ILE:HD12	2:G:298:GLU:N	2.07	0.68
2:G:28:LYS:HA	2:G:31:GLN:NE2	2.07	0.68
1:H:208:G:H2'	1:H:209:A:C8	2.27	0.68
2:A:104:VAL:HG12	2:A:229:LEU:HD11	1.76	0.68
2:C:383:SER:O	2:C:384:MET:HG3	1.94	0.68
2:C:40:ASN:CG	2:C:43:LEU:HD21	2.14	0.68
2:C:59:LYS:HZ2	2:C:61:PRO:CA	2.07	0.68
2:G:104:VAL:HG12	2:G:229:LEU:HD11	1.76	0.68
2:G:40:ASN:CG	2:G:43:LEU:HD21	2.14	0.68
2:A:419:GLU:C	2:A:421:TYR:N	2.47	0.68
2:A:425:ASN:O	2:A:429:LYS:N	2.26	0.68
1:B:218:G:H2'	1:B:219:C:H5'	1.76	0.68
2:C:161:GLN:O	2:G:159:ASN:HB3	1.94	0.68
2:C:27:ILE:HA	2:C:30:LEU:HD23	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:339:LEU:HD23	2:C:339:LEU:H	1.57	0.68
2:C:380:ALA:O	2:C:382:ASN:N	2.26	0.68
2:E:271:GLY:HA2	2:E:278:GLU:O	1.93	0.68
2:G:188:GLY:HA3	2:G:201:GLU:OE2	1.94	0.68
2:G:339:LEU:HD23	2:G:339:LEU:H	1.57	0.68
2:G:99:ILE:O	2:G:99:ILE:HG22	1.92	0.68
2:E:63:VAL:H	2:E:351:HIS:CE1	2.12	0.68
2:G:243:ILE:HG23	2:G:269:PHE:O	1.94	0.68
2:A:297:ILE:HD12	2:A:298:GLU:N	2.07	0.68
2:C:119:PHE:O	2:C:123:ARG:HG2	1.93	0.68
2:C:188:GLY:HA3	2:C:201:GLU:OE2	1.94	0.68
2:E:188:GLY:HA3	2:E:201:GLU:OE2	1.94	0.68
2:E:27:ILE:HA	2:E:30:LEU:HD23	1.76	0.68
2:E:339:LEU:HA	2:E:342:MET:HB3	1.74	0.68
2:A:31:GLN:HA	2:A:34:LEU:CD1	2.22	0.67
2:A:40:ASN:CG	2:A:43:LEU:HD21	2.14	0.67
2:A:61:PRO:O	2:A:62:SER:O	2.12	0.67
2:C:144:LEU:CD1	2:E:177:ASN:HB3	2.23	0.67
2:C:166:ILE:HG23	2:C:167:ALA:N	2.09	0.67
2:C:59:LYS:NZ	2:C:61:PRO:N	2.42	0.67
2:E:108:GLY:HA2	2:E:111:THR:OG1	1.94	0.67
2:E:73:ILE:O	2:E:76:ASP:HB3	1.93	0.67
2:G:27:ILE:HA	2:G:30:LEU:HD23	1.76	0.67
2:A:243:ILE:HG23	2:A:269:PHE:O	1.94	0.67
2:A:414:VAL:C	2:A:417:LEU:HG	2.15	0.67
2:C:193:GLY:C	2:C:195:GLU:H	1.96	0.67
2:C:2:LEU:CG	2:C:3:GLU:N	2.58	0.67
2:E:166:ILE:O	2:E:169:LYS:HB2	1.95	0.67
2:E:336:ILE:HG21	2:E:378:LEU:HD12	1.74	0.67
2:G:339:LEU:HA	2:G:342:MET:HB3	1.74	0.67
2:G:2:LEU:CG	2:G:3:GLU:N	2.58	0.67
1:H:218:G:H2'	1:H:219:C:H5'	1.76	0.67
2:C:108:GLY:HA2	2:C:111:THR:OG1	1.94	0.67
2:C:61:PRO:O	2:C:62:SER:O	2.12	0.67
2:E:115:LYS:HZ3	2:E:278:GLU:CB	2.05	0.67
2:E:71:ILE:HA	2:E:74:VAL:HG22	1.75	0.67
2:G:108:GLY:HA2	2:G:111:THR:OG1	1.94	0.67
2:G:269:PHE:HA	2:G:281:THR:O	1.93	0.67
2:G:2:LEU:HG	2:G:3:GLU:H	1.60	0.67
2:G:71:ILE:HA	2:G:74:VAL:HG22	1.75	0.67
2:A:108:GLY:HA2	2:A:111:THR:OG1	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:27:ILE:HA	2:A:30:LEU:HD23	1.76	0.67
2:A:383:SER:O	2:A:384:MET:HG3	1.94	0.67
2:E:119:PHE:O	2:E:123:ARG:HG2	1.93	0.67
2:G:61:PRO:O	2:G:62:SER:O	2.12	0.67
2:A:115:LYS:O	2:A:119:PHE:HB3	1.95	0.67
2:A:269:PHE:HD1	2:A:281:THR:HA	1.58	0.67
2:C:261:VAL:O	2:C:263:THR:N	2.24	0.67
2:C:243:ILE:HG23	2:C:269:PHE:O	1.93	0.67
2:E:383:SER:O	2:E:384:MET:HG3	1.94	0.67
2:G:137:PRO:O	2:G:139:ALA:N	2.23	0.67
2:E:104:VAL:HG12	2:E:229:LEU:HD11	1.76	0.67
2:G:115:LYS:O	2:G:119:PHE:HB3	1.95	0.67
2:G:166:ILE:O	2:G:169:LYS:HB2	1.95	0.67
2:A:166:ILE:O	2:A:169:LYS:HB2	1.95	0.67
2:A:170:GLY:O	2:A:171:VAL:C	2.31	0.67
2:A:425:ASN:ND2	2:A:426:ARG:H	1.92	0.67
2:C:71:ILE:HA	2:C:74:VAL:HG22	1.76	0.67
1:F:196:A:C2'	1:F:197:G:H5'	2.25	0.67
2:G:414:VAL:C	2:G:417:LEU:HG	2.15	0.67
2:G:71:ILE:O	2:G:74:VAL:HG22	1.95	0.67
2:A:166:ILE:HG23	2:A:167:ALA:N	2.09	0.67
1:D:218:G:H2'	1:D:219:C:H5'	1.76	0.67
2:G:385:THR:HG22	2:G:388:GLU:OE1	1.95	0.67
2:A:2:LEU:CG	2:A:3:GLU:N	2.58	0.67
2:C:385:THR:HG22	2:C:388:GLU:OE1	1.95	0.67
1:D:198:G:N2	2:C:408:GLY:HA3	2.10	0.67
2:E:28:LYS:HA	2:E:31:GLN:HB3	1.77	0.67
2:E:378:LEU:HD23	2:E:378:LEU:C	2.16	0.67
2:E:385:THR:HG22	2:E:388:GLU:OE1	1.95	0.67
2:E:71:ILE:O	2:E:74:VAL:HG22	1.95	0.67
2:G:166:ILE:HG23	2:G:167:ALA:N	2.09	0.67
2:A:287:PHE:O	2:A:290:ARG:N	2.28	0.67
2:A:385:THR:HG22	2:A:388:GLU:OE1	1.95	0.67
2:C:166:ILE:O	2:C:169:LYS:HB2	1.95	0.67
2:C:71:ILE:O	2:C:74:VAL:HG22	1.95	0.67
2:E:417:LEU:HD13	2:E:421:TYR:HE2	1.59	0.67
2:G:111:THR:O	2:G:112:THR:C	2.33	0.67
2:G:425:ASN:ND2	2:G:426:ARG:H	1.92	0.67
2:A:378:LEU:C	2:A:378:LEU:HD23	2.16	0.66
2:A:402:ARG:HB3	2:A:402:ARG:NH1	2.10	0.66
1:B:198:G:N2	2:A:408:GLY:HA3	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:71:ILE:HA	2:A:74:VAL:HG22	1.76	0.66
1:B:197:G:H2'	1:B:198:G:H1'	1.77	0.66
2:C:31:GLN:HA	2:C:34:LEU:CD1	2.22	0.66
2:E:287:PHE:O	2:E:290:ARG:N	2.28	0.66
2:E:35:ILE:HA	2:E:39:VAL:HB	1.77	0.66
2:E:61:PRO:O	2:E:62:SER:O	2.12	0.66
2:C:232:ARG:O	2:C:233:PHE:CB	2.43	0.66
2:C:28:LYS:HA	2:C:31:GLN:HB3	1.77	0.66
2:C:414:VAL:O	2:C:415:ARG:C	2.34	0.66
1:D:196:A:C2'	1:D:197:G:H5'	2.25	0.66
2:E:232:ARG:O	2:E:233:PHE:HB3	1.94	0.66
2:G:215:ILE:HG22	2:G:216:LEU:O	1.96	0.66
2:G:287:PHE:O	2:G:290:ARG:N	2.28	0.66
2:G:378:LEU:C	2:G:378:LEU:HD23	2.16	0.66
2:A:232:ARG:O	2:A:233:PHE:HB3	1.94	0.66
2:A:233:PHE:C	2:A:235:GLN:N	2.43	0.66
2:A:374:ILE:HG23	2:A:375:ARG:H	1.60	0.66
2:A:71:ILE:O	2:A:74:VAL:HG22	1.95	0.66
1:B:196:A:C2'	1:B:197:G:H5'	2.25	0.66
2:C:115:LYS:O	2:C:119:PHE:HB3	1.95	0.66
2:C:374:ILE:HG23	2:C:375:ARG:H	1.60	0.66
2:E:115:LYS:O	2:E:119:PHE:HB3	1.95	0.66
2:G:146:LEU:HD23	2:G:146:LEU:N	2.06	0.66
2:G:170:GLY:O	2:G:171:VAL:C	2.32	0.66
2:G:43:LEU:N	2:G:43:LEU:HD23	2.04	0.66
2:G:7:ASP:OD1	2:G:7:ASP:N	2.29	0.66
1:H:197:G:H2'	1:H:198:G:H1'	1.77	0.66
2:A:111:THR:O	2:A:112:THR:C	2.33	0.66
2:A:354:GLY:O	2:A:355:LEU:HD23	1.96	0.66
2:A:7:ASP:OD1	2:A:7:ASP:N	2.29	0.66
1:D:197:G:H2'	1:D:198:G:H1'	1.77	0.66
2:E:267:ILE:CG2	2:E:268:LYS:H	2.06	0.66
2:E:91:ASN:CB	2:E:92:PRO:HD2	2.20	0.66
2:G:101:LEU:O	2:G:186:THR:HG22	1.96	0.66
2:G:402:ARG:HB3	2:G:402:ARG:NH1	2.10	0.66
2:A:101:LEU:O	2:A:186:THR:HG22	1.95	0.66
2:A:188:GLY:HA3	2:A:201:GLU:OE2	1.94	0.66
2:C:104:VAL:HG12	2:C:229:LEU:HD11	1.76	0.66
2:C:392:PRO:C	2:C:395:ILE:HD11	2.16	0.66
2:E:70:PHE:O	2:E:73:ILE:HB	1.96	0.66
2:G:132:ALA:CB	2:G:184:VAL:HG12	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:354:GLY:O	2:G:355:LEU:HD23	1.96	0.66
2:G:70:PHE:O	2:G:73:ILE:HB	1.96	0.66
2:A:232:ARG:O	2:A:233:PHE:CB	2.43	0.66
2:A:392:PRO:C	2:A:395:ILE:HD11	2.16	0.66
2:A:2:LEU:HG	2:A:3:GLU:H	1.60	0.66
2:C:111:THR:O	2:C:112:THR:C	2.33	0.66
2:E:354:GLY:O	2:E:355:LEU:HD23	1.96	0.66
2:E:2:LEU:CG	2:E:3:GLU:N	2.58	0.66
2:G:345:LEU:HG	2:G:346:SER:H	1.58	0.66
1:H:196:A:C2'	1:H:197:G:H5'	2.25	0.66
2:A:215:ILE:HG22	2:A:216:LEU:O	1.96	0.66
2:A:313:ILE:O	2:A:314:GLN:O	2.14	0.66
2:A:359:LEU:O	2:A:361:THR:HG23	1.96	0.66
2:C:101:LEU:O	2:C:186:THR:HG22	1.95	0.66
2:C:354:GLY:O	2:C:355:LEU:HD23	1.96	0.66
2:C:402:ARG:HB3	2:C:402:ARG:NH1	2.10	0.66
2:E:111:THR:O	2:E:112:THR:C	2.33	0.66
2:E:232:ARG:O	2:E:233:PHE:CB	2.43	0.66
2:E:313:ILE:O	2:E:314:GLN:O	2.14	0.66
2:E:374:ILE:HG23	2:E:375:ARG:H	1.60	0.66
2:E:391:ASN:OD1	2:E:394:ILE:HG23	1.96	0.66
2:E:402:ARG:HB3	2:E:402:ARG:NH1	2.10	0.66
1:F:198:G:N2	2:E:408:GLY:HA3	2.10	0.66
2:G:166:ILE:HG23	2:G:167:ALA:H	1.61	0.66
2:G:297:ILE:CG1	2:G:298:GLU:H	2.09	0.66
2:A:35:ILE:HA	2:A:39:VAL:HB	1.77	0.66
2:A:59:LYS:C	2:A:59:LYS:CD	2.54	0.66
2:A:70:PHE:O	2:A:73:ILE:HB	1.96	0.66
2:C:82:PHE:O	2:C:84:GLY:N	2.29	0.66
2:E:173:ILE:O	2:E:176:LYS:N	2.29	0.66
1:F:197:G:H2'	1:F:198:G:H1'	1.77	0.66
2:G:232:ARG:O	2:G:233:PHE:HB3	1.94	0.66
2:G:313:ILE:O	2:G:314:GLN:O	2.14	0.66
2:G:374:ILE:HG23	2:G:375:ARG:H	1.60	0.66
2:G:330:ARG:HA	2:G:389:LEU:HD12	1.78	0.66
2:G:392:PRO:C	2:G:395:ILE:HD11	2.16	0.66
2:A:173:ILE:O	2:A:176:LYS:N	2.29	0.66
2:C:378:LEU:HD23	2:C:378:LEU:C	2.16	0.66
2:C:35:ILE:HA	2:C:39:VAL:HB	1.77	0.66
2:C:414:VAL:C	2:C:417:LEU:HG	2.15	0.66
2:E:359:LEU:O	2:E:361:THR:HG23	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:330:ARG:HA	2:E:389:LEU:HD12	1.78	0.66
2:G:173:ILE:O	2:G:176:LYS:N	2.29	0.66
2:A:330:ARG:HA	2:A:389:LEU:HD12	1.78	0.66
2:C:173:ILE:HG22	2:C:174:PHE:N	2.11	0.66
2:E:392:PRO:C	2:E:395:ILE:HD11	2.16	0.66
2:E:414:VAL:O	2:E:415:ARG:C	2.34	0.66
1:F:218:G:H2'	1:F:219:C:H5'	1.76	0.66
2:G:218:ILE:O	2:G:245:THR:N	2.29	0.66
2:G:232:ARG:O	2:G:233:PHE:CB	2.43	0.66
2:G:334:ALA:O	2:G:337:ILE:HD13	1.96	0.66
2:A:104:VAL:CG1	2:A:229:LEU:HD11	2.27	0.65
2:A:177:ASN:ND2	2:G:144:LEU:HD11	2.11	0.65
2:A:132:ALA:CB	2:A:184:VAL:HG12	2.26	0.65
2:A:218:ILE:O	2:A:245:THR:N	2.29	0.65
2:A:28:LYS:HA	2:A:31:GLN:HB3	1.77	0.65
2:A:334:ALA:O	2:A:337:ILE:HD13	1.96	0.65
2:A:82:PHE:O	2:A:84:GLY:N	2.29	0.65
2:C:340:ARG:CD	2:C:375:ARG:HH21	2.06	0.65
2:G:35:ILE:HA	2:G:39:VAL:HB	1.77	0.65
1:H:198:G:N2	2:G:408:GLY:HA3	2.10	0.65
1:H:211:C:H4'	2:G:402:ARG:CG	2.27	0.65
2:E:101:LEU:O	2:E:186:THR:HG22	1.95	0.65
2:E:146:LEU:N	2:E:146:LEU:HD23	2.06	0.65
2:G:102:VAL:O	2:G:216:LEU:HA	1.97	0.65
2:G:331:ASP:HA	2:G:334:ALA:CB	2.27	0.65
2:A:230:ALA:O	2:A:233:PHE:HB3	1.96	0.65
2:C:102:VAL:O	2:C:216:LEU:HA	1.97	0.65
2:C:391:ASN:OD1	2:C:394:ILE:HG23	1.96	0.65
2:E:105:GLN:O	2:E:106:GLY:O	2.14	0.65
1:F:211:C:H4'	2:E:402:ARG:CG	2.27	0.65
2:G:359:LEU:O	2:G:361:THR:HG23	1.96	0.65
1:H:179:GTP:H2'	1:H:179:GTP:N3	2.11	0.65
2:A:139:ALA:O	2:A:140:TYR:O	2.14	0.65
2:A:209:LEU:HD13	2:A:211:PRO:HD3	1.79	0.65
1:B:211:C:H4'	2:A:402:ARG:CG	2.27	0.65
2:C:215:ILE:HG22	2:C:216:LEU:O	1.96	0.65
1:D:211:C:H4'	2:C:402:ARG:CG	2.26	0.65
2:C:70:PHE:O	2:C:73:ILE:HB	1.96	0.65
2:E:246:LYS:HB3	2:E:249:GLY:HA3	1.78	0.65
2:E:297:ILE:CG1	2:E:298:GLU:H	2.09	0.65
2:C:139:ALA:O	2:C:140:TYR:O	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:170:GLY:O	2:C:171:VAL:C	2.31	0.65
2:E:269:PHE:HB3	2:E:280:GLU:O	1.97	0.65
2:E:316:LYS:HZ1	2:E:431:VAL:HG21	1.62	0.65
2:E:334:ALA:O	2:E:337:ILE:HD13	1.96	0.65
2:E:82:PHE:O	2:E:84:GLY:N	2.29	0.65
2:G:269:PHE:HB3	2:G:280:GLU:O	1.97	0.65
2:A:391:ASN:OD1	2:A:394:ILE:HG23	1.96	0.65
2:C:297:ILE:CG1	2:C:298:GLU:H	2.09	0.65
2:C:359:LEU:O	2:C:361:THR:HG23	1.96	0.65
2:C:7:ASP:N	2:C:7:ASP:OD1	2.29	0.65
2:E:215:ILE:HG22	2:E:216:LEU:O	1.96	0.65
2:E:230:ALA:O	2:E:233:PHE:HB3	1.96	0.65
2:E:414:VAL:C	2:E:417:LEU:HG	2.15	0.65
2:G:104:VAL:CG1	2:G:229:LEU:HD11	2.27	0.65
2:G:391:ASN:OD1	2:G:394:ILE:HG23	1.96	0.65
2:A:105:GLN:O	2:A:106:GLY:O	2.14	0.65
2:A:102:VAL:O	2:A:216:LEU:HA	1.97	0.65
2:C:105:GLN:O	2:C:106:GLY:O	2.14	0.65
2:C:173:ILE:O	2:C:176:LYS:N	2.29	0.65
2:C:218:ILE:O	2:C:245:THR:N	2.29	0.65
2:C:287:PHE:O	2:C:290:ARG:N	2.28	0.65
2:C:296:ASP:CG	2:C:297:ILE:N	2.49	0.65
2:C:313:ILE:O	2:C:314:GLN:O	2.14	0.65
2:C:330:ARG:HA	2:C:389:LEU:HD12	1.78	0.65
2:E:143:LEU:HD12	2:E:144:LEU:N	2.12	0.65
2:E:126:LYS:HG2	2:E:180:ASP:CG	2.17	0.65
2:E:7:ASP:OD1	2:E:7:ASP:N	2.29	0.65
2:G:296:ASP:CG	2:G:297:ILE:N	2.50	0.65
2:G:414:VAL:O	2:G:415:ARG:C	2.34	0.65
2:G:41:VAL:O	2:G:42:LYS:C	2.35	0.65
2:A:12:PHE:CD2	2:A:13:LEU:HD23	2.30	0.65
2:A:269:PHE:HB3	2:A:280:GLU:O	1.97	0.65
2:A:297:ILE:CG1	2:A:298:GLU:H	2.09	0.65
2:A:28:LYS:CA	2:A:31:GLN:HB3	2.27	0.65
2:C:143:LEU:HD12	2:C:144:LEU:N	2.12	0.65
2:E:102:VAL:O	2:E:216:LEU:HA	1.97	0.65
1:F:179:GTP:N3	1:F:179:GTP:H2'	2.11	0.65
2:G:126:LYS:HG2	2:G:180:ASP:CG	2.17	0.65
2:G:209:LEU:HD13	2:G:211:PRO:HD3	1.79	0.65
2:G:28:LYS:CA	2:G:31:GLN:HB3	2.27	0.65
2:A:32:LYS:O	2:A:34:LEU:N	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:414:VAL:HA	2:A:417:LEU:CD2	2.27	0.65
2:A:43:LEU:N	2:A:43:LEU:HD23	2.04	0.65
2:C:230:ALA:O	2:C:233:PHE:HB3	1.96	0.65
2:C:2:LEU:HG	2:C:3:GLU:H	1.60	0.65
2:E:166:ILE:HG23	2:E:167:ALA:H	1.60	0.65
2:E:218:ILE:O	2:E:245:THR:N	2.29	0.65
2:G:105:GLN:O	2:G:106:GLY:O	2.14	0.65
2:G:230:ALA:O	2:G:233:PHE:HB3	1.96	0.65
2:C:144:LEU:HD13	2:E:177:ASN:CG	2.17	0.65
2:C:311:ASP:HA	2:C:314:GLN:HG3	1.78	0.65
2:E:173:ILE:HG22	2:E:174:PHE:N	2.12	0.65
2:E:423:ASN:N	2:E:425:ASN:HD21	1.95	0.65
2:E:41:VAL:O	2:E:42:LYS:C	2.35	0.65
2:G:139:ALA:O	2:G:140:TYR:O	2.14	0.65
2:E:419:GLU:C	2:E:421:TYR:N	2.47	0.64
2:G:143:LEU:HD12	2:G:144:LEU:N	2.12	0.64
2:G:414:VAL:HA	2:G:417:LEU:CD2	2.27	0.64
2:A:5:ILE:N	2:A:7:ASP:OD1	2.31	0.64
2:C:12:PHE:CD2	2:C:13:LEU:HD23	2.30	0.64
2:C:126:LYS:HG2	2:C:180:ASP:CG	2.17	0.64
2:C:43:LEU:N	2:C:43:LEU:HD23	2.04	0.64
2:E:139:ALA:O	2:E:140:TYR:O	2.14	0.64
2:E:311:ASP:HA	2:E:314:GLN:HG3	1.78	0.64
2:G:233:PHE:C	2:G:235:GLN:N	2.43	0.64
2:G:32:LYS:O	2:G:34:LEU:N	2.30	0.64
2:A:414:VAL:CA	2:A:417:LEU:HG	2.27	0.64
2:C:104:VAL:CG1	2:C:229:LEU:HD11	2.27	0.64
2:C:166:ILE:HG23	2:C:167:ALA:H	1.61	0.64
2:C:316:LYS:HZ1	2:C:431:VAL:HG21	1.62	0.64
2:E:414:VAL:CA	2:E:417:LEU:HG	2.27	0.64
2:A:126:LYS:HG2	2:A:180:ASP:CG	2.17	0.64
2:C:267:ILE:CG2	2:C:268:LYS:H	2.06	0.64
2:C:331:ASP:HA	2:C:334:ALA:CB	2.27	0.64
2:C:3:GLU:O	2:C:6:ARG:HB3	1.98	0.64
2:C:5:ILE:C	2:C:7:ASP:N	2.51	0.64
1:D:179:GTP:H2'	1:D:179:GTP:N3	2.11	0.64
2:E:331:ASP:HA	2:E:334:ALA:CB	2.27	0.64
2:E:339:LEU:HD23	2:E:342:MET:HE2	1.80	0.64
2:E:354:GLY:HA3	2:E:367:LEU:HG	1.80	0.64
2:G:86:LYS:HZ1	2:G:89:ASN:ND2	1.95	0.64
2:A:166:ILE:HG23	2:A:167:ALA:H	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:19:TYR:O	2:A:21:LYS:N	2.31	0.64
2:A:311:ASP:HA	2:A:314:GLN:HG3	1.78	0.64
1:B:179:GTP:H2'	1:B:179:GTP:N3	2.11	0.64
2:C:116:LEU:HG	2:C:117:ALA:N	2.13	0.64
2:C:28:LYS:CA	2:C:31:GLN:HB3	2.27	0.64
2:E:70:PHE:O	2:E:74:VAL:HG13	1.98	0.64
2:G:116:LEU:HG	2:G:117:ALA:N	2.13	0.64
2:G:173:ILE:HG22	2:G:174:PHE:N	2.11	0.64
2:G:82:PHE:O	2:G:84:GLY:N	2.29	0.64
2:A:331:ASP:HA	2:A:334:ALA:CB	2.27	0.64
2:A:41:VAL:O	2:A:42:LYS:C	2.35	0.64
2:C:298:GLU:O	2:C:301:LEU:HB3	1.98	0.64
2:C:419:GLU:C	2:C:421:TYR:N	2.47	0.64
2:E:217:VAL:O	2:E:218:ILE:HG23	1.98	0.64
2:G:28:LYS:HA	2:G:31:GLN:HB3	1.77	0.64
2:A:246:LYS:HB3	2:A:249:GLY:HA3	1.78	0.64
2:A:43:LEU:CD2	2:A:43:LEU:H	1.84	0.64
2:A:4:ASN:HA	2:A:7:ASP:OD1	1.98	0.64
2:C:246:LYS:HB3	2:C:249:GLY:HA3	1.78	0.64
2:C:269:PHE:HB3	2:C:280:GLU:O	1.97	0.64
2:C:399:ARG:O	2:C:400:MET:HB3	1.98	0.64
2:C:4:ASN:HA	2:C:7:ASP:OD1	1.98	0.64
2:E:118:TYR:CB	2:E:276:ILE:HD11	2.28	0.64
2:E:399:ARG:HB3	2:E:399:ARG:NH1	2.03	0.64
2:E:399:ARG:O	2:E:400:MET:HB3	1.98	0.64
2:E:3:GLU:O	2:E:6:ARG:HB3	1.98	0.64
2:G:298:GLU:O	2:G:301:LEU:HB3	1.98	0.64
2:G:4:ASN:HA	2:G:7:ASP:OD1	1.98	0.64
2:G:5:ILE:N	2:G:7:ASP:OD1	2.31	0.64
2:A:298:GLU:O	2:A:301:LEU:HB3	1.98	0.64
2:A:399:ARG:O	2:A:400:MET:HB3	1.98	0.64
2:C:384:MET:HB3	2:C:388:GLU:OE2	1.98	0.64
2:C:5:ILE:N	2:C:7:ASP:OD1	2.31	0.64
2:E:104:VAL:CG1	2:E:229:LEU:HD11	2.27	0.64
2:E:116:LEU:HG	2:E:117:ALA:N	2.13	0.64
2:G:3:GLU:O	2:G:6:ARG:HB3	1.98	0.64
2:A:110:THR:OG1	2:A:111:THR:N	2.28	0.64
2:A:423:ASN:N	2:A:425:ASN:HD21	1.95	0.64
2:C:118:TYR:CB	2:C:276:ILE:HD11	2.28	0.64
2:C:41:VAL:O	2:C:42:LYS:C	2.35	0.64
2:E:28:LYS:CA	2:E:31:GLN:HB3	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:296:ASP:CG	2:E:297:ILE:N	2.49	0.64
2:A:143:LEU:HD12	2:A:144:LEU:N	2.12	0.64
2:C:334:ALA:O	2:C:337:ILE:HD13	1.96	0.64
2:C:423:ASN:N	2:C:425:ASN:HD21	1.95	0.64
2:C:70:PHE:O	2:C:74:VAL:HG13	1.98	0.64
2:E:12:PHE:CD2	2:E:13:LEU:HD23	2.30	0.64
2:E:242:VAL:N	2:E:266:THR:O	2.29	0.64
2:E:298:GLU:O	2:E:301:LEU:HB3	1.98	0.64
2:E:339:LEU:H	2:E:339:LEU:CD2	2.07	0.64
2:E:414:VAL:HA	2:E:417:LEU:CD2	2.27	0.64
2:G:308:GLU:O	2:G:309:GLU:HB2	1.98	0.64
2:A:148:ASN:C	2:A:150:ILE:H	2.02	0.63
2:A:297:ILE:HD12	2:A:298:GLU:H	1.64	0.63
2:C:328:THR:C	2:C:330:ARG:H	2.01	0.63
2:E:2:LEU:HG	2:E:3:GLU:H	1.60	0.63
2:G:246:LYS:HB3	2:G:249:GLY:HA3	1.78	0.63
2:G:242:VAL:N	2:G:266:THR:O	2.29	0.63
2:G:311:ASP:HA	2:G:314:GLN:HG3	1.78	0.63
2:G:414:VAL:CA	2:G:417:LEU:HG	2.27	0.63
2:A:47:LEU:HD11	2:A:77:GLU:HB3	1.80	0.63
2:C:115:LYS:O	2:C:119:PHE:N	2.26	0.63
2:C:146:LEU:HA	2:C:149:GLN:OE1	1.99	0.63
2:C:217:VAL:O	2:C:218:ILE:HG23	1.98	0.63
2:C:297:ILE:HD12	2:C:298:GLU:H	1.64	0.63
2:C:177:ASN:HB3	2:E:144:LEU:CD2	2.27	0.63
2:E:5:ILE:N	2:E:7:ASP:OD1	2.30	0.63
2:E:4:ASN:HA	2:E:7:ASP:OD1	1.98	0.63
2:G:126:LYS:HB3	2:G:179:MET:HG3	1.81	0.63
2:G:215:ILE:CG2	2:G:242:VAL:HA	2.27	0.63
2:A:134:VAL:HG21	2:A:162:ASN:N	2.14	0.63
2:A:75:TYR:HA	2:A:78:LEU:CD1	2.29	0.63
2:C:126:LYS:HB3	2:C:179:MET:HG3	1.81	0.63
2:C:32:LYS:O	2:C:34:LEU:N	2.30	0.63
2:C:354:GLY:HA3	2:C:367:LEU:HG	1.80	0.63
2:C:356:GLY:O	2:C:357:ILE:HG13	1.98	0.63
2:C:414:VAL:CA	2:C:417:LEU:HG	2.27	0.63
2:E:218:ILE:N	2:E:218:ILE:CD1	2.62	0.63
2:E:19:TYR:O	2:E:21:LYS:N	2.31	0.63
2:G:19:TYR:O	2:G:21:LYS:N	2.31	0.63
2:G:70:PHE:O	2:G:74:VAL:HG13	1.98	0.63
2:E:209:LEU:HD13	2:E:211:PRO:HD3	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:356:GLY:O	2:E:357:ILE:HG13	1.98	0.63
2:G:399:ARG:O	2:G:400:MET:HB3	1.98	0.63
2:C:148:ASN:C	2:C:150:ILE:H	2.02	0.63
2:C:378:LEU:O	2:C:379:ALA:C	2.37	0.63
2:E:110:THR:OG1	2:E:111:THR:N	2.28	0.63
2:E:148:ASN:C	2:E:150:ILE:H	2.02	0.63
2:G:148:ASN:C	2:G:150:ILE:H	2.02	0.63
2:G:134:VAL:HG21	2:G:162:ASN:N	2.14	0.63
2:A:134:VAL:HG11	2:A:160:ASN:O	1.98	0.63
2:A:5:ILE:C	2:A:7:ASP:N	2.51	0.63
2:A:60:PRO:O	2:A:61:PRO:C	2.36	0.63
2:A:70:PHE:O	2:A:74:VAL:HG13	1.98	0.63
2:C:383:SER:C	2:C:384:MET:HG3	2.19	0.63
2:C:60:PRO:O	2:C:61:PRO:C	2.36	0.63
2:E:115:LYS:O	2:E:119:PHE:N	2.26	0.63
2:E:132:ALA:CB	2:E:184:VAL:HG12	2.26	0.63
2:G:134:VAL:HG11	2:G:160:ASN:O	1.98	0.63
2:G:217:VAL:O	2:G:218:ILE:HG23	1.98	0.63
2:G:303:LYS:HG3	2:G:342:MET:HB2	1.81	0.63
2:A:171:VAL:O	2:A:173:ILE:N	2.32	0.63
2:A:356:GLY:O	2:A:357:ILE:HG13	1.98	0.63
2:A:384:MET:HB3	2:A:388:GLU:OE2	1.98	0.63
2:A:3:GLU:O	2:A:6:ARG:HB3	1.98	0.63
2:C:215:ILE:CG2	2:C:242:VAL:HA	2.27	0.63
2:C:376:ARG:HH11	2:C:409:LEU:HD21	1.63	0.63
2:C:75:TYR:HA	2:C:78:LEU:CD1	2.29	0.63
2:E:126:LYS:HB3	2:E:179:MET:HG3	1.81	0.63
2:E:134:VAL:HG11	2:E:160:ASN:O	1.98	0.63
2:E:171:VAL:O	2:E:173:ILE:N	2.32	0.63
2:E:297:ILE:HD12	2:E:298:GLU:H	1.64	0.63
2:E:383:SER:C	2:E:384:MET:HG3	2.19	0.63
2:G:118:TYR:CB	2:G:276:ILE:HD11	2.28	0.63
2:G:38:ASP:OD1	2:G:255:GLY:HA3	1.99	0.63
2:A:115:LYS:HZ3	2:A:278:GLU:CB	2.09	0.63
2:A:217:VAL:O	2:A:218:ILE:HG23	1.98	0.63
2:C:110:THR:OG1	2:C:111:THR:N	2.28	0.63
1:D:197:G:N2	2:C:407:SER:HA	2.08	0.63
2:G:150:ILE:CD1	2:G:152:VAL:HB	2.29	0.63
2:G:326:LYS:HB3	2:G:327:LEU:HD12	1.80	0.63
2:G:326:LYS:C	2:G:327:LEU:HG	2.19	0.63
2:G:384:MET:HB3	2:G:388:GLU:OE2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:172:ASP:HA	2:A:175:VAL:HB	1.81	0.63
2:A:215:ILE:CG2	2:A:242:VAL:HA	2.27	0.63
2:A:314:GLN:O	2:A:315:LYS:C	2.38	0.63
2:A:316:LYS:HZ1	2:A:431:VAL:HG21	1.63	0.63
2:A:383:SER:C	2:A:384:MET:HG3	2.19	0.63
2:C:105:GLN:CD	2:C:106:GLY:N	2.53	0.63
2:E:38:ASP:OD1	2:E:255:GLY:HA3	1.99	0.63
2:E:75:TYR:HA	2:E:78:LEU:CD1	2.29	0.63
2:G:12:PHE:CD2	2:G:13:LEU:HD23	2.30	0.63
2:G:146:LEU:HA	2:G:149:GLN:OE1	1.99	0.63
2:G:202:MET:N	2:G:205:MET:SD	2.72	0.63
2:G:423:ASN:N	2:G:425:ASN:HD21	1.96	0.63
2:A:21:LYS:O	2:A:25:GLU:HG3	1.99	0.62
2:A:329:LEU:CA	2:A:332:VAL:HG23	2.23	0.62
2:A:414:VAL:O	2:A:415:ARG:C	2.34	0.62
2:C:172:ASP:HA	2:C:175:VAL:HB	1.81	0.62
2:C:209:LEU:HD13	2:C:211:PRO:HD3	1.79	0.62
2:C:19:TYR:O	2:C:21:LYS:N	2.31	0.62
2:C:38:ASP:OD1	2:C:255:GLY:HA3	1.99	0.62
2:E:202:MET:N	2:E:205:MET:SD	2.72	0.62
2:E:297:ILE:CD1	2:E:298:GLU:H	2.12	0.62
2:E:328:THR:C	2:E:330:ARG:H	2.01	0.62
2:G:260:VAL:CG1	2:G:267:ILE:HD11	2.29	0.62
2:G:297:ILE:HD12	2:G:298:GLU:H	1.64	0.62
2:G:300:ILE:N	2:G:303:LYS:HE2	2.14	0.62
2:G:378:LEU:O	2:G:379:ALA:C	2.37	0.62
2:G:383:SER:C	2:G:384:MET:HG3	2.19	0.62
2:A:115:LYS:O	2:A:119:PHE:N	2.26	0.62
2:A:126:LYS:HB3	2:A:179:MET:HG3	1.81	0.62
2:A:296:ASP:CG	2:A:297:ILE:N	2.49	0.62
2:A:297:ILE:CD1	2:A:298:GLU:H	2.12	0.62
2:A:326:LYS:C	2:A:327:LEU:HG	2.19	0.62
2:A:328:THR:C	2:A:330:ARG:H	2.01	0.62
2:C:202:MET:N	2:C:205:MET:SD	2.72	0.62
2:C:260:VAL:CG1	2:C:267:ILE:HD11	2.29	0.62
2:C:326:LYS:C	2:C:327:LEU:HG	2.19	0.62
2:C:339:LEU:HD23	2:C:342:MET:HE2	1.81	0.62
2:C:414:VAL:HA	2:C:417:LEU:CD2	2.27	0.62
2:E:32:LYS:O	2:E:34:LEU:N	2.30	0.62
2:E:378:LEU:O	2:E:379:ALA:C	2.37	0.62
2:A:150:ILE:CD1	2:A:152:VAL:HB	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:173:ILE:HG22	2:A:174:PHE:N	2.12	0.62
2:A:202:MET:N	2:A:205:MET:SD	2.72	0.62
2:A:222:ILE:HG12	2:A:226:ALA:H	1.64	0.62
2:A:356:GLY:C	2:A:357:ILE:HG13	2.20	0.62
2:A:38:ASP:OD1	2:A:255:GLY:HA3	1.99	0.62
2:C:134:VAL:HG11	2:C:160:ASN:O	1.98	0.62
2:C:171:VAL:O	2:C:173:ILE:N	2.32	0.62
2:E:300:ILE:N	2:E:303:LYS:HE2	2.14	0.62
2:E:326:LYS:HB3	2:E:327:LEU:HD12	1.80	0.62
2:G:105:GLN:NE2	2:G:106:GLY:H	1.98	0.62
2:G:222:ILE:HG12	2:G:226:ALA:H	1.64	0.62
2:G:376:ARG:HH11	2:G:409:LEU:HD21	1.63	0.62
2:G:5:ILE:C	2:G:7:ASP:N	2.51	0.62
2:A:173:ILE:HG22	2:A:177:ASN:HD21	1.65	0.62
2:A:303:LYS:HG3	2:A:342:MET:HB2	1.81	0.62
2:G:110:THR:OG1	2:G:111:THR:N	2.28	0.62
2:G:329:LEU:CA	2:G:332:VAL:HG23	2.23	0.62
1:H:198:G:H21	2:G:408:GLY:HA3	1.64	0.62
2:G:47:LEU:HD11	2:G:77:GLU:HB3	1.80	0.62
2:A:105:GLN:NE2	2:A:106:GLY:H	1.98	0.62
2:A:308:GLU:O	2:A:309:GLU:HB2	1.98	0.62
2:A:378:LEU:O	2:A:378:LEU:HD23	1.99	0.62
2:C:297:ILE:CD1	2:C:298:GLU:H	2.12	0.62
2:E:331:ASP:HA	2:E:334:ALA:HB3	1.81	0.62
2:E:423:ASN:HA	2:E:426:ARG:HB2	1.81	0.62
2:G:118:TYR:OH	2:G:277:ASP:HB3	1.99	0.62
2:G:171:VAL:O	2:G:173:ILE:N	2.32	0.62
2:G:21:LYS:O	2:G:25:GLU:HG3	1.99	0.62
2:A:121:LYS:C	2:A:123:ARG:H	2.03	0.62
2:A:143:LEU:O	2:A:144:LEU:C	2.38	0.62
2:A:399:ARG:HB3	2:A:399:ARG:NH1	2.03	0.62
2:A:2:LEU:CG	2:A:3:GLU:H	2.12	0.62
2:A:405:GLU:O	2:A:408:GLY:N	2.32	0.62
2:A:55:LEU:HD22	2:A:55:LEU:N	2.12	0.62
2:C:134:VAL:HG21	2:C:162:ASN:N	2.14	0.62
2:C:21:LYS:O	2:C:25:GLU:HG3	1.99	0.62
2:C:314:GLN:O	2:C:315:LYS:C	2.38	0.62
2:C:356:GLY:C	2:C:357:ILE:HG13	2.20	0.62
2:C:405:GLU:O	2:C:408:GLY:N	2.32	0.62
2:C:47:LEU:HD11	2:C:77:GLU:HB3	1.81	0.62
2:E:105:GLN:NE2	2:E:106:GLY:H	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:173:ILE:HG22	2:E:177:ASN:HD21	1.65	0.62
2:E:405:GLU:O	2:E:408:GLY:N	2.32	0.62
2:G:354:GLY:HA3	2:G:367:LEU:HG	1.80	0.62
2:G:378:LEU:HD23	2:G:378:LEU:O	1.99	0.62
2:G:75:TYR:HA	2:G:78:LEU:CD1	2.29	0.62
2:A:242:VAL:N	2:A:266:THR:O	2.29	0.62
2:C:378:LEU:O	2:C:378:LEU:HD23	1.99	0.62
2:E:260:VAL:CG1	2:E:267:ILE:HD11	2.29	0.62
2:E:356:GLY:C	2:E:357:ILE:HG13	2.20	0.62
2:E:2:LEU:CG	2:E:3:GLU:H	2.12	0.62
2:E:47:LEU:HD11	2:E:77:GLU:HB3	1.81	0.62
2:G:143:LEU:O	2:G:144:LEU:C	2.38	0.62
2:G:297:ILE:CD1	2:G:298:GLU:H	2.12	0.62
2:G:356:GLY:O	2:G:357:ILE:HG13	1.98	0.62
2:A:105:GLN:CD	2:A:106:GLY:N	2.53	0.62
2:A:146:LEU:HA	2:A:149:GLN:OE1	1.99	0.62
2:A:260:VAL:CG1	2:A:267:ILE:HD11	2.29	0.62
2:C:303:LYS:HG3	2:C:342:MET:HB2	1.81	0.62
2:E:105:GLN:CD	2:E:106:GLY:N	2.53	0.62
2:E:146:LEU:HA	2:E:149:GLN:OE1	1.99	0.62
2:E:376:ARG:HH11	2:E:409:LEU:HD21	1.63	0.62
2:G:172:ASP:HA	2:G:175:VAL:HB	1.81	0.62
2:G:173:ILE:HG22	2:G:177:ASN:HD21	1.65	0.62
2:G:314:GLN:O	2:G:315:LYS:C	2.38	0.62
2:A:354:GLY:HA3	2:A:367:LEU:HG	1.80	0.62
2:C:132:ALA:CB	2:C:184:VAL:HG12	2.26	0.62
2:C:242:VAL:N	2:C:266:THR:O	2.29	0.62
2:C:300:ILE:N	2:C:303:LYS:HE2	2.14	0.62
2:C:326:LYS:HB3	2:C:327:LEU:HD12	1.80	0.62
2:C:337:ILE:O	2:C:338:ALA:C	2.38	0.62
2:E:134:VAL:HG21	2:E:162:ASN:N	2.14	0.62
2:E:326:LYS:C	2:E:327:LEU:HG	2.19	0.62
2:E:384:MET:HB3	2:E:388:GLU:OE2	1.98	0.62
2:A:300:ILE:N	2:A:303:LYS:HE2	2.14	0.62
2:A:91:ASN:CB	2:A:92:PRO:HD2	2.20	0.62
2:C:177:ASN:OD1	2:E:144:LEU:HD13	1.99	0.62
2:C:221:SER:HA	2:C:250:THR:CG2	2.30	0.62
2:E:172:ASP:HA	2:E:175:VAL:HB	1.81	0.62
2:E:339:LEU:N	2:E:339:LEU:HD23	2.15	0.62
2:C:331:ASP:HA	2:C:334:ALA:HB3	1.82	0.61
2:E:21:LYS:O	2:E:25:GLU:HG3	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:221:SER:HA	2:E:250:THR:CG2	2.30	0.61
2:E:222:ILE:HG12	2:E:226:ALA:H	1.64	0.61
2:E:86:LYS:NZ	2:E:89:ASN:ND2	2.48	0.61
2:G:356:GLY:C	2:G:357:ILE:HG13	2.20	0.61
2:A:288:VAL:HA	2:A:291:ILE:CD1	2.22	0.61
2:A:329:LEU:HB2	2:A:392:PRO:HG2	1.82	0.61
2:C:339:LEU:N	2:C:339:LEU:HD23	2.15	0.61
2:C:49:ALA:O	2:C:52:LYS:N	2.34	0.61
2:C:91:ASN:CB	2:C:92:PRO:HD2	2.21	0.61
2:G:260:VAL:HG11	2:G:267:ILE:HD11	1.82	0.61
2:A:116:LEU:HG	2:A:117:ALA:N	2.13	0.61
2:A:202:MET:CA	2:A:205:MET:SD	2.89	0.61
2:A:337:ILE:O	2:A:338:ALA:C	2.38	0.61
2:A:378:LEU:O	2:A:379:ALA:C	2.37	0.61
2:A:69:TRP:O	2:A:70:PHE:C	2.39	0.61
1:D:198:G:H21	2:C:408:GLY:HA3	1.64	0.61
2:G:105:GLN:CD	2:G:106:GLY:N	2.53	0.61
2:G:121:LYS:C	2:G:123:ARG:H	2.03	0.61
2:G:169:LYS:O	2:G:170:GLY:C	2.39	0.61
2:G:49:ALA:O	2:G:52:LYS:N	2.33	0.61
2:A:118:TYR:CB	2:A:276:ILE:HD11	2.28	0.61
2:A:285:LYS:O	2:A:286:ARG:C	2.38	0.61
2:A:381:LEU:N	2:A:381:LEU:HD23	2.16	0.61
2:C:169:LYS:O	2:C:170:GLY:C	2.39	0.61
2:C:173:ILE:HG22	2:C:177:ASN:HD21	1.65	0.61
2:C:365:ASP:OD1	2:C:365:ASP:C	2.38	0.61
2:C:86:LYS:NZ	2:C:89:ASN:ND2	2.48	0.61
2:E:118:TYR:OH	2:E:277:ASP:HB3	1.99	0.61
2:E:260:VAL:HG11	2:E:267:ILE:HD11	1.82	0.61
2:E:378:LEU:HD23	2:E:378:LEU:O	1.99	0.61
2:E:384:MET:HG2	2:E:403:ILE:CD1	2.29	0.61
2:G:221:SER:HA	2:G:250:THR:CG2	2.30	0.61
2:G:339:LEU:N	2:G:339:LEU:HD23	2.15	0.61
2:G:339:LEU:HD23	2:G:342:MET:HE2	1.82	0.61
2:G:329:LEU:HB2	2:G:392:PRO:HG2	1.82	0.61
2:A:339:LEU:HD23	2:A:339:LEU:N	2.15	0.61
2:C:118:TYR:OH	2:C:277:ASP:HB3	1.99	0.61
2:C:136:ARG:NH1	2:C:137:PRO:HG2	2.15	0.61
2:C:173:ILE:HD13	2:C:173:ILE:N	2.16	0.61
2:C:202:MET:HA	2:C:205:MET:HB2	1.82	0.61
2:C:202:MET:CA	2:C:205:MET:SD	2.89	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:164:ILE:O	2:G:167:ALA:HB3	2.01	0.61
2:A:118:TYR:OH	2:A:277:ASP:HB3	1.99	0.61
2:A:376:ARG:HH11	2:A:409:LEU:HD21	1.63	0.61
2:C:105:GLN:NE2	2:C:106:GLY:H	1.98	0.61
2:C:267:ILE:CG2	2:C:268:LYS:N	2.64	0.61
2:E:121:LYS:C	2:E:123:ARG:H	2.03	0.61
2:E:132:ALA:HB2	2:E:184:VAL:CG1	2.29	0.61
2:E:202:MET:HA	2:E:205:MET:HB2	1.82	0.61
2:E:417:LEU:HD12	2:E:418:LEU:HD23	1.82	0.61
2:A:136:ARG:NH1	2:A:137:PRO:HG2	2.15	0.61
2:A:202:MET:HA	2:A:205:MET:HB2	1.82	0.61
2:C:143:LEU:O	2:C:144:LEU:C	2.38	0.61
2:C:154:VAL:CG1	2:C:155:TYR:H	2.11	0.61
2:E:314:GLN:O	2:E:315:LYS:C	2.38	0.61
2:E:303:LYS:HG3	2:E:342:MET:HB2	1.80	0.61
1:F:198:G:H21	2:E:408:GLY:HA3	1.64	0.61
2:A:157:GLU:O	2:A:160:ASN:HB3	2.01	0.61
2:A:169:LYS:O	2:A:170:GLY:C	2.39	0.61
2:E:215:ILE:HG23	2:E:241:SER:O	2.00	0.61
2:G:173:ILE:N	2:G:173:ILE:HD13	2.16	0.61
2:G:304:VAL:O	2:G:308:GLU:N	2.33	0.61
2:G:331:ASP:HA	2:G:334:ALA:HB3	1.82	0.61
2:G:69:TRP:O	2:G:70:PHE:C	2.39	0.61
2:A:221:SER:HA	2:A:250:THR:CG2	2.30	0.61
2:A:49:ALA:O	2:A:52:LYS:N	2.34	0.61
2:C:222:ILE:HG12	2:C:226:ALA:H	1.64	0.61
2:C:275:LYS:HB2	2:C:278:GLU:HG3	1.83	0.61
2:E:285:LYS:O	2:E:286:ARG:C	2.38	0.61
2:E:380:ALA:HA	2:E:383:SER:CB	2.31	0.61
2:E:69:TRP:O	2:E:70:PHE:C	2.39	0.61
2:E:5:ILE:C	2:E:7:ASP:N	2.51	0.61
1:F:219:C:H2'	1:F:220:C:H6	1.65	0.61
2:G:136:ARG:NH1	2:G:137:PRO:HG2	2.15	0.61
2:G:202:MET:HA	2:G:205:MET:HB2	1.82	0.61
2:A:326:LYS:HB3	2:A:327:LEU:HD12	1.80	0.61
2:A:331:ASP:HA	2:A:334:ALA:HB3	1.82	0.61
2:A:367:LEU:O	2:A:368:LYS:HE2	2.01	0.61
2:A:414:VAL:HA	2:A:417:LEU:HD21	1.83	0.61
2:C:285:LYS:O	2:C:286:ARG:C	2.38	0.61
2:C:339:LEU:CD2	2:C:339:LEU:H	2.07	0.61
2:E:60:PRO:O	2:E:61:PRO:C	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:283:ASN:O	2:A:284:ALA:C	2.40	0.60
2:C:164:ILE:O	2:C:167:ALA:HB3	2.01	0.60
2:C:260:VAL:HG11	2:C:267:ILE:HD11	1.82	0.60
2:C:283:ASN:O	2:C:284:ALA:C	2.39	0.60
2:C:417:LEU:HD12	2:C:418:LEU:HD23	1.82	0.60
2:E:140:TYR:O	2:E:141:ASP:C	2.39	0.60
2:E:337:ILE:O	2:E:338:ALA:C	2.38	0.60
2:E:49:ALA:O	2:E:52:LYS:N	2.33	0.60
2:E:77:GLU:OE1	2:E:77:GLU:HA	2.00	0.60
2:G:202:MET:CA	2:G:205:MET:SD	2.89	0.60
2:G:218:ILE:N	2:G:218:ILE:CD1	2.62	0.60
2:G:285:LYS:O	2:G:286:ARG:C	2.38	0.60
2:G:423:ASN:HA	2:G:426:ARG:HB2	1.81	0.60
2:G:60:PRO:O	2:G:61:PRO:C	2.36	0.60
1:B:198:G:H21	2:A:408:GLY:HA3	1.64	0.60
2:C:140:TYR:O	2:C:141:ASP:C	2.39	0.60
2:C:298:GLU:C	2:C:301:LEU:HB3	2.22	0.60
2:C:423:ASN:HA	2:C:426:ARG:HB2	1.81	0.60
2:E:215:ILE:CG2	2:E:242:VAL:HA	2.27	0.60
2:E:298:GLU:C	2:E:301:LEU:HB3	2.22	0.60
2:E:329:LEU:HB2	2:E:392:PRO:HG2	1.82	0.60
2:E:63:VAL:HG13	2:E:348:VAL:HA	1.83	0.60
1:H:219:C:H2'	1:H:220:C:H6	1.65	0.60
2:A:77:GLU:OE1	2:A:77:GLU:HA	2.00	0.60
2:C:380:ALA:HA	2:C:383:SER:CB	2.31	0.60
2:E:169:LYS:O	2:E:170:GLY:C	2.39	0.60
2:E:257:LEU:HD12	2:E:258:SER:H	1.66	0.60
2:E:304:VAL:O	2:E:308:GLU:N	2.34	0.60
2:E:308:GLU:O	2:E:309:GLU:CG	2.49	0.60
2:G:283:ASN:O	2:G:284:ALA:C	2.40	0.60
2:G:287:PHE:O	2:G:288:VAL:C	2.40	0.60
2:G:337:ILE:O	2:G:338:ALA:C	2.38	0.60
2:G:405:GLU:O	2:G:408:GLY:N	2.32	0.60
2:G:86:LYS:NZ	2:G:89:ASN:ND2	2.48	0.60
2:A:164:ILE:O	2:A:167:ALA:HB3	2.01	0.60
2:A:254:GLY:O	2:A:257:LEU:HG	2.02	0.60
2:A:423:ASN:HA	2:A:426:ARG:HB2	1.81	0.60
2:A:63:VAL:HA	2:A:351:HIS:CD2	2.37	0.60
2:C:25:GLU:O	2:C:26:PHE:C	2.40	0.60
2:C:304:VAL:O	2:C:308:GLU:N	2.33	0.60
2:C:315:LYS:HZ3	2:C:315:LYS:HB3	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:329:LEU:HB2	2:C:392:PRO:HG2	1.82	0.60
2:E:136:ARG:NH1	2:E:137:PRO:HG2	2.15	0.60
2:E:148:ASN:CG	2:E:149:GLN:N	2.55	0.60
2:E:25:GLU:O	2:E:26:PHE:C	2.40	0.60
2:E:380:ALA:O	2:E:382:ASN:OD1	2.20	0.60
2:G:132:ALA:HB2	2:G:184:VAL:CG1	2.29	0.60
2:G:63:VAL:HA	2:G:351:HIS:CD2	2.37	0.60
2:G:381:LEU:N	2:G:381:LEU:HD23	2.16	0.60
2:A:272:THR:OG1	2:A:278:GLU:HB3	2.02	0.60
2:A:339:LEU:HD23	2:A:342:MET:HE2	1.83	0.60
2:A:380:ALA:HA	2:A:383:SER:CB	2.31	0.60
2:C:310:TYR:C	2:C:312:LYS:N	2.52	0.60
2:C:367:LEU:O	2:C:368:LYS:HE2	2.01	0.60
2:C:50:LYS:O	2:C:53:GLU:HB2	2.02	0.60
2:E:106:GLY:O	2:E:107:SER:HB2	2.01	0.60
2:E:275:LYS:HB2	2:E:278:GLU:HG3	1.83	0.60
2:G:157:GLU:O	2:G:160:ASN:HB3	2.01	0.60
2:G:272:THR:OG1	2:G:278:GLU:HB3	2.02	0.60
2:G:328:THR:C	2:G:330:ARG:H	2.01	0.60
2:G:63:VAL:HG13	2:G:348:VAL:HA	1.84	0.60
2:G:380:ALA:HA	2:G:383:SER:CB	2.31	0.60
2:G:50:LYS:O	2:G:53:GLU:HB2	2.02	0.60
2:G:55:LEU:HD22	2:G:55:LEU:N	2.12	0.60
2:G:77:GLU:HA	2:G:77:GLU:OE1	2.00	0.60
2:A:304:VAL:O	2:A:308:GLU:N	2.33	0.60
1:B:219:C:H2'	1:B:220:C:H6	1.65	0.60
2:C:289:SER:HA	2:C:292:LEU:HD12	1.84	0.60
2:C:308:GLU:O	2:C:309:GLU:CG	2.49	0.60
2:C:63:VAL:HG13	2:C:348:VAL:HA	1.84	0.60
2:C:380:ALA:O	2:C:382:ASN:OD1	2.20	0.60
2:C:2:LEU:CG	2:C:3:GLU:H	2.12	0.60
2:C:69:TRP:O	2:C:70:PHE:C	2.39	0.60
2:E:272:THR:OG1	2:E:278:GLU:HB3	2.02	0.60
2:E:367:LEU:O	2:E:368:LYS:HE2	2.01	0.60
2:G:275:LYS:HB2	2:G:278:GLU:HG3	1.83	0.60
2:G:358:MET:SD	2:G:358:MET:N	2.75	0.60
2:G:98:ILE:HG21	2:G:211:PRO:HA	1.84	0.60
2:A:215:ILE:HG23	2:A:241:SER:O	2.00	0.60
2:A:115:LYS:NZ	2:A:273:GLY:O	2.33	0.60
2:A:50:LYS:O	2:A:53:GLU:HB2	2.02	0.60
2:A:86:LYS:NZ	2:A:89:ASN:ND2	2.48	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:157:GLU:O	2:C:160:ASN:HB3	2.01	0.60
2:C:284:ALA:O	2:C:285:LYS:C	2.40	0.60
2:C:77:GLU:OE1	2:C:77:GLU:HA	2.00	0.60
1:D:219:C:H2'	1:D:220:C:H6	1.65	0.60
2:A:260:VAL:HG11	2:A:267:ILE:HD11	1.82	0.60
2:A:374:ILE:O	2:A:376:ARG:N	2.33	0.60
2:C:121:LYS:C	2:C:123:ARG:H	2.03	0.60
2:C:132:ALA:HB2	2:C:184:VAL:CG1	2.29	0.60
2:C:215:ILE:HG23	2:C:241:SER:O	2.00	0.60
2:C:68:GLU:O	2:C:71:ILE:HG12	2.02	0.60
2:E:173:ILE:N	2:E:173:ILE:HD13	2.16	0.60
2:E:202:MET:CA	2:E:205:MET:SD	2.89	0.60
2:E:250:THR:HG22	2:E:252:LYS:CD	2.31	0.60
2:E:283:ASN:O	2:E:284:ALA:C	2.40	0.60
2:E:283:ASN:O	2:E:286:ARG:N	2.35	0.60
2:E:381:LEU:HD23	2:E:381:LEU:N	2.16	0.60
2:E:68:GLU:O	2:E:71:ILE:HG12	2.02	0.60
2:G:115:LYS:O	2:G:119:PHE:N	2.26	0.60
2:G:254:GLY:O	2:G:257:LEU:HG	2.02	0.60
2:G:284:ALA:O	2:G:285:LYS:C	2.40	0.60
2:G:2:LEU:CG	2:G:3:GLU:H	2.12	0.60
2:A:111:THR:HG1	2:A:112:THR:N	1.98	0.60
2:A:173:ILE:N	2:A:173:ILE:HD13	2.16	0.60
2:A:417:LEU:HD12	2:A:418:LEU:HD23	1.82	0.60
2:A:425:ASN:O	2:A:428:LEU:HB3	2.02	0.60
2:A:71:ILE:HA	2:A:74:VAL:HG13	1.84	0.60
2:C:358:MET:SD	2:C:358:MET:N	2.75	0.60
2:C:384:MET:HG2	2:C:403:ILE:CD1	2.29	0.60
2:E:108:GLY:O	2:E:109:LYS:C	2.40	0.60
2:E:143:LEU:O	2:E:144:LEU:C	2.38	0.60
2:E:164:ILE:O	2:E:167:ALA:HB3	2.01	0.60
2:E:289:SER:HA	2:E:292:LEU:HD12	1.84	0.60
1:F:197:G:N2	2:E:407:SER:HA	2.08	0.60
2:E:66:ARG:O	2:E:67:LYS:C	2.40	0.60
2:E:69:TRP:O	2:E:73:ILE:HG12	2.02	0.60
2:E:7:ASP:C	2:E:9:VAL:N	2.53	0.60
2:G:140:TYR:O	2:G:141:ASP:C	2.39	0.60
2:G:174:PHE:O	2:G:178:LYS:N	2.35	0.60
2:G:399:ARG:NH1	2:G:399:ARG:HB3	2.03	0.60
2:G:414:VAL:HA	2:G:417:LEU:HD21	1.83	0.60
2:A:283:ASN:O	2:A:286:ARG:N	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:297:ILE:O	2:A:298:GLU:C	2.41	0.60
2:A:298:GLU:C	2:A:301:LEU:HB3	2.22	0.60
2:C:164:ILE:O	2:C:165:GLU:C	2.40	0.60
2:C:297:ILE:O	2:C:298:GLU:C	2.41	0.60
2:C:98:ILE:HG21	2:C:211:PRO:HA	1.84	0.60
2:E:157:GLU:O	2:E:160:ASN:HB3	2.01	0.60
2:E:254:GLY:O	2:E:257:LEU:HG	2.02	0.60
2:G:215:ILE:HG23	2:G:241:SER:O	2.00	0.60
2:A:164:ILE:O	2:A:165:GLU:C	2.40	0.59
2:C:218:ILE:N	2:C:218:ILE:CD1	2.62	0.59
2:E:310:TYR:C	2:E:312:LYS:N	2.53	0.59
2:G:195:GLU:HG3	2:G:232:ARG:NH1	2.17	0.59
2:G:25:GLU:O	2:G:26:PHE:C	2.40	0.59
2:G:298:GLU:C	2:G:301:LEU:HB3	2.22	0.59
2:G:417:LEU:HD12	2:G:418:LEU:HD23	1.82	0.59
2:A:287:PHE:HA	2:A:290:ARG:HB3	1.83	0.59
2:C:210:LYS:HD3	2:C:210:LYS:N	2.18	0.59
2:C:287:PHE:O	2:C:288:VAL:C	2.40	0.59
2:C:414:VAL:HA	2:C:417:LEU:HD21	1.83	0.59
2:C:423:ASN:O	2:C:424:MET:C	2.40	0.59
2:E:123:ARG:HH11	2:E:123:ARG:CG	2.15	0.59
2:G:358:MET:HG2	2:G:358:MET:O	2.02	0.59
2:G:380:ALA:O	2:G:382:ASN:OD1	2.20	0.59
2:A:108:GLY:O	2:A:109:LYS:C	2.40	0.59
2:A:10:ARG:HG3	2:A:13:LEU:HD12	1.85	0.59
2:A:148:ASN:CG	2:A:149:GLN:N	2.55	0.59
2:A:127:VAL:HG21	2:A:152:VAL:CG1	2.32	0.59
2:A:214:VAL:C	2:A:215:ILE:HD12	2.23	0.59
2:A:331:ASP:O	2:A:334:ALA:HB3	2.02	0.59
2:A:63:VAL:HG13	2:A:348:VAL:HA	1.84	0.59
2:C:106:GLY:O	2:C:107:SER:HB2	2.02	0.59
2:C:283:ASN:O	2:C:286:ARG:N	2.35	0.59
2:C:425:ASN:O	2:C:428:LEU:HB3	2.02	0.59
2:E:55:LEU:N	2:E:55:LEU:HD22	2.12	0.59
2:E:86:LYS:HZ3	2:E:89:ASN:CG	2.05	0.59
2:G:283:ASN:O	2:G:286:ARG:N	2.35	0.59
2:G:287:PHE:HA	2:G:290:ARG:HB3	1.83	0.59
2:A:254:GLY:O	2:A:256:ALA:N	2.36	0.59
2:A:358:MET:N	2:A:358:MET:SD	2.75	0.59
2:C:175:VAL:O	2:C:178:LYS:N	2.34	0.59
2:C:254:GLY:O	2:C:256:ALA:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:254:GLY:O	2:C:257:LEU:HG	2.02	0.59
2:C:420:TRP:C	2:C:421:TYR:CD1	2.76	0.59
2:C:69:TRP:O	2:C:73:ILE:HG12	2.02	0.59
2:E:150:ILE:CD1	2:E:152:VAL:HB	2.29	0.59
2:E:174:PHE:O	2:E:178:LYS:N	2.35	0.59
2:G:104:VAL:HG23	2:G:105:GLN:H	1.68	0.59
2:G:148:ASN:CG	2:G:149:GLN:N	2.55	0.59
2:G:164:ILE:O	2:G:165:GLU:C	2.40	0.59
2:G:157:GLU:HB2	2:G:166:ILE:HD13	1.84	0.59
2:G:378:LEU:HA	2:G:381:LEU:HD12	1.83	0.59
2:A:163:PRO:O	2:A:166:ILE:HG22	2.03	0.59
2:A:174:PHE:O	2:A:178:LYS:N	2.35	0.59
2:A:98:ILE:HG21	2:A:211:PRO:HA	1.84	0.59
2:C:123:ARG:CG	2:C:123:ARG:HH11	2.15	0.59
2:C:204:GLU:O	2:C:205:MET:C	2.41	0.59
2:C:381:LEU:HD23	2:C:381:LEU:N	2.16	0.59
2:C:417:LEU:HD12	2:C:418:LEU:H	1.67	0.59
2:E:195:GLU:HG3	2:E:232:ARG:NH1	2.17	0.59
2:E:30:LEU:O	2:E:34:LEU:HD21	2.03	0.59
2:G:106:GLY:HA2	2:G:109:LYS:CB	2.32	0.59
2:G:210:LYS:HD3	2:G:210:LYS:N	2.18	0.59
2:G:310:TYR:C	2:G:312:LYS:N	2.53	0.59
2:G:331:ASP:O	2:G:334:ALA:HB3	2.02	0.59
2:A:104:VAL:HG23	2:A:105:GLN:H	1.68	0.59
2:A:117:ALA:O	2:A:118:TYR:C	2.41	0.59
2:A:275:LYS:HB2	2:A:278:GLU:HG3	1.83	0.59
2:A:43:LEU:O	2:A:46:SER:N	2.35	0.59
2:C:117:ALA:O	2:C:118:TYR:C	2.41	0.59
2:C:174:PHE:O	2:C:178:LYS:N	2.35	0.59
2:C:214:VAL:C	2:C:215:ILE:HD12	2.23	0.59
2:C:316:LYS:NZ	2:C:431:VAL:HG21	2.18	0.59
2:E:254:GLY:O	2:E:256:ALA:N	2.36	0.59
2:E:296:ASP:O	2:E:298:GLU:N	2.36	0.59
2:E:63:VAL:HA	2:E:351:HIS:CD2	2.37	0.59
2:E:417:LEU:HD12	2:E:418:LEU:H	1.67	0.59
2:E:50:LYS:O	2:E:53:GLU:HB2	2.02	0.59
2:G:297:ILE:O	2:G:298:GLU:C	2.41	0.59
2:G:384:MET:HG2	2:G:403:ILE:CD1	2.29	0.59
2:G:68:GLU:O	2:G:71:ILE:HG12	2.02	0.59
2:A:140:TYR:O	2:A:141:ASP:C	2.39	0.59
2:A:25:GLU:O	2:A:26:PHE:C	2.40	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:247:MET:SD	2:A:270:ILE:HG13	2.43	0.59
2:A:358:MET:HG2	2:A:358:MET:O	2.02	0.59
2:C:108:GLY:O	2:C:109:LYS:C	2.40	0.59
2:C:329:LEU:CA	2:C:332:VAL:HG23	2.23	0.59
2:C:63:VAL:HA	2:C:351:HIS:CD2	2.37	0.59
2:C:66:ARG:O	2:C:67:LYS:C	2.40	0.59
2:E:164:ILE:O	2:E:165:GLU:C	2.40	0.59
2:E:358:MET:O	2:E:358:MET:HG2	2.03	0.59
2:E:378:LEU:HA	2:E:381:LEU:HD12	1.83	0.59
2:E:425:ASN:O	2:E:428:LEU:HB3	2.02	0.59
2:G:107:SER:C	2:G:109:LYS:N	2.56	0.59
2:G:204:GLU:O	2:G:205:MET:C	2.41	0.59
2:G:71:ILE:HA	2:G:74:VAL:HG13	1.84	0.59
2:A:106:GLY:O	2:A:107:SER:HB2	2.02	0.59
2:A:66:ARG:O	2:A:67:LYS:C	2.40	0.59
1:B:198:G:N3	1:B:198:G:H2'	2.17	0.59
2:C:296:ASP:O	2:C:298:GLU:N	2.36	0.59
2:C:332:VAL:HG12	2:C:333:TYR:N	2.17	0.59
2:E:284:ALA:O	2:E:285:LYS:C	2.40	0.59
2:E:287:PHE:O	2:E:288:VAL:C	2.40	0.59
2:E:358:MET:N	2:E:358:MET:SD	2.75	0.59
2:E:414:VAL:HA	2:E:417:LEU:HD21	1.83	0.59
2:E:420:TRP:C	2:E:421:TYR:CD1	2.76	0.59
2:G:106:GLY:O	2:G:107:SER:HB2	2.01	0.59
2:G:214:VAL:C	2:G:215:ILE:HD12	2.23	0.59
2:G:247:MET:SD	2:G:270:ILE:HG13	2.43	0.59
2:G:288:VAL:CA	2:G:291:ILE:CD1	2.81	0.59
2:G:367:LEU:O	2:G:368:LYS:HE2	2.01	0.59
2:G:66:ARG:O	2:G:67:LYS:C	2.40	0.59
2:A:332:VAL:HG12	2:A:333:TYR:N	2.17	0.59
2:A:378:LEU:HA	2:A:381:LEU:HD12	1.83	0.59
2:A:384:MET:HG2	2:A:403:ILE:CD1	2.29	0.59
2:C:150:ILE:CD1	2:C:152:VAL:HB	2.29	0.59
2:C:247:MET:SD	2:C:270:ILE:HG13	2.43	0.59
2:C:272:THR:OG1	2:C:278:GLU:HB3	2.02	0.59
2:E:163:PRO:O	2:E:166:ILE:HG22	2.03	0.59
2:E:210:LYS:HD3	2:E:210:LYS:N	2.17	0.59
2:E:24:ASP:HA	2:E:27:ILE:HG13	1.85	0.59
2:E:331:ASP:O	2:E:334:ALA:HB3	2.02	0.59
2:E:38:ASP:OD1	2:E:39:VAL:N	2.36	0.59
2:G:423:ASN:O	2:G:424:MET:C	2.40	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:69:TRP:O	2:G:73:ILE:HG12	2.03	0.59
1:H:219:C:H2'	1:H:220:C:C6	2.38	0.59
2:A:254:GLY:O	2:A:255:GLY:C	2.41	0.59
2:A:296:ASP:O	2:A:298:GLU:N	2.36	0.59
2:A:380:ALA:O	2:A:382:ASN:OD1	2.20	0.59
2:A:68:GLU:O	2:A:71:ILE:HG12	2.02	0.59
2:C:157:GLU:HB2	2:C:166:ILE:HD13	1.84	0.59
2:E:127:VAL:HG21	2:E:152:VAL:CG1	2.32	0.59
2:E:154:VAL:CG1	2:E:155:TYR:H	2.11	0.59
2:E:287:PHE:HA	2:E:290:ARG:HB3	1.83	0.59
2:E:98:ILE:HG21	2:E:211:PRO:HA	1.84	0.59
2:G:108:GLY:O	2:G:109:LYS:C	2.40	0.59
2:G:10:ARG:HG3	2:G:13:LEU:HD12	1.85	0.59
2:G:254:GLY:O	2:G:256:ALA:N	2.36	0.59
2:G:425:ASN:O	2:G:428:LEU:HB3	2.02	0.59
1:H:198:G:N3	1:H:198:G:H2'	2.17	0.59
2:A:195:GLU:HG3	2:A:232:ARG:NH1	2.17	0.58
2:A:233:PHE:CZ	2:A:240:GLY:HA3	2.38	0.58
2:A:328:THR:O	2:A:331:ASP:HB2	2.03	0.58
2:A:38:ASP:OD1	2:A:39:VAL:N	2.36	0.58
2:C:148:ASN:CG	2:C:149:GLN:N	2.55	0.58
2:C:127:VAL:HG21	2:C:152:VAL:CG1	2.32	0.58
2:C:163:PRO:O	2:C:166:ILE:HG22	2.03	0.58
2:C:195:GLU:HG3	2:C:232:ARG:NH1	2.17	0.58
2:C:254:GLY:O	2:C:255:GLY:C	2.41	0.58
2:C:287:PHE:HA	2:C:290:ARG:HB3	1.83	0.58
2:C:331:ASP:O	2:C:334:ALA:HB3	2.02	0.58
2:C:43:LEU:O	2:C:46:SER:N	2.35	0.58
1:D:188:A:C8	2:C:399:ARG:NH2	2.71	0.58
2:E:346:SER:O	2:E:349:LEU:N	2.36	0.58
2:E:71:ILE:HA	2:E:74:VAL:HG13	1.84	0.58
2:G:303:LYS:CG	2:G:342:MET:HB2	2.34	0.58
2:A:144:LEU:O	2:A:145:GLN:O	2.22	0.58
2:A:289:SER:HA	2:A:292:LEU:HD12	1.84	0.58
2:C:209:LEU:C	2:C:209:LEU:CD2	2.72	0.58
2:C:303:LYS:CG	2:C:342:MET:HB2	2.34	0.58
2:E:117:ALA:O	2:E:118:TYR:C	2.41	0.58
2:E:247:MET:SD	2:E:270:ILE:HG13	2.43	0.58
2:E:296:ASP:OD1	2:E:297:ILE:N	2.34	0.58
2:E:297:ILE:O	2:E:298:GLU:C	2.41	0.58
1:F:188:A:C6	2:E:399:ARG:HG2	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:188:A:C8	2:E:399:ARG:NH2	2.71	0.58
2:G:257:LEU:HD12	2:G:258:SER:H	1.67	0.58
2:G:289:SER:HA	2:G:292:LEU:HD12	1.84	0.58
2:G:389:LEU:H	2:G:389:LEU:CD2	2.06	0.58
2:A:161:GLN:O	2:E:159:ASN:HB3	2.02	0.58
2:C:143:LEU:CD1	2:C:144:LEU:N	2.67	0.58
2:E:144:LEU:O	2:E:145:GLN:O	2.22	0.58
2:E:209:LEU:CD2	2:E:209:LEU:C	2.72	0.58
2:E:214:VAL:C	2:E:215:ILE:HD12	2.23	0.58
1:F:219:C:H2'	1:F:220:C:C6	2.38	0.58
2:G:144:LEU:O	2:G:145:GLN:O	2.22	0.58
2:G:254:GLY:O	2:G:255:GLY:C	2.41	0.58
2:G:328:THR:O	2:G:331:ASP:HB2	2.03	0.58
1:H:188:A:C6	2:G:399:ARG:HG2	2.38	0.58
2:G:38:ASP:OD1	2:G:39:VAL:N	2.36	0.58
2:G:316:LYS:HZ1	2:G:431:VAL:HG21	1.69	0.58
2:G:43:LEU:O	2:G:46:SER:N	2.35	0.58
2:A:106:GLY:HA2	2:A:109:LYS:CB	2.32	0.58
2:A:197:LYS:O	2:A:201:GLU:HG3	2.04	0.58
2:A:218:ILE:N	2:A:218:ILE:CD1	2.62	0.58
2:A:303:LYS:CG	2:A:342:MET:HB2	2.34	0.58
2:A:346:SER:O	2:A:349:LEU:N	2.36	0.58
2:A:425:ASN:O	2:A:426:ARG:C	2.42	0.58
2:C:99:ILE:CG2	2:C:183:ILE:HA	2.33	0.58
2:C:300:ILE:HA	2:C:342:MET:HA	1.85	0.58
2:C:346:SER:O	2:C:349:LEU:N	2.36	0.58
1:D:188:A:C6	2:C:399:ARG:HG2	2.39	0.58
2:C:420:TRP:C	2:C:421:TYR:HD1	2.07	0.58
2:E:153:GLN:HG2	2:E:154:VAL:N	2.18	0.58
2:E:188:GLY:HA3	2:E:201:GLU:CD	2.24	0.58
2:E:288:VAL:CA	2:E:291:ILE:CD1	2.81	0.58
2:G:163:PRO:O	2:G:166:ILE:HG22	2.03	0.58
2:G:197:LYS:O	2:G:201:GLU:HG3	2.04	0.58
2:G:26:PHE:CE2	2:G:27:ILE:HD13	2.38	0.58
2:G:316:LYS:NZ	2:G:431:VAL:HG21	2.18	0.58
2:G:332:VAL:HG12	2:G:333:TYR:N	2.17	0.58
2:G:346:SER:O	2:G:349:LEU:N	2.36	0.58
2:G:420:TRP:C	2:G:421:TYR:CD1	2.76	0.58
2:A:157:GLU:HB2	2:A:166:ILE:HD13	1.84	0.58
2:A:204:GLU:O	2:A:205:MET:C	2.41	0.58
2:A:5:ILE:CG2	2:A:6:ARG:N	2.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:153:GLN:HG2	2:C:154:VAL:N	2.18	0.58
2:C:188:GLY:HA3	2:C:201:GLU:CD	2.24	0.58
2:C:233:PHE:O	2:C:236:ALA:N	2.37	0.58
2:C:38:ASP:OD1	2:C:39:VAL:N	2.36	0.58
1:D:198:G:H2'	1:D:198:G:N3	2.17	0.58
1:D:219:C:H2'	1:D:220:C:C6	2.38	0.58
2:E:10:ARG:HG3	2:E:13:LEU:HD12	1.85	0.58
2:E:332:VAL:HG12	2:E:333:TYR:N	2.17	0.58
2:G:153:GLN:HG2	2:G:154:VAL:N	2.18	0.58
2:G:244:ILE:N	2:G:244:ILE:HD12	2.19	0.58
2:A:140:TYR:CD1	2:A:140:TYR:N	2.72	0.58
2:A:188:GLY:HA3	2:A:201:GLU:CD	2.24	0.58
2:A:196:THR:O	2:A:200:GLU:HB2	2.04	0.58
2:A:209:LEU:CD2	2:A:209:LEU:C	2.72	0.58
2:A:284:ALA:O	2:A:285:LYS:C	2.40	0.58
2:C:288:VAL:CA	2:C:291:ILE:CD1	2.81	0.58
2:C:358:MET:O	2:C:358:MET:HG2	2.02	0.58
2:C:5:ILE:CG2	2:C:6:ARG:N	2.66	0.58
2:E:175:VAL:O	2:E:178:LYS:N	2.34	0.58
2:E:204:GLU:O	2:E:205:MET:C	2.41	0.58
2:E:233:PHE:O	2:E:236:ALA:N	2.37	0.58
2:E:244:ILE:HD12	2:E:244:ILE:N	2.19	0.58
2:E:420:TRP:C	2:E:421:TYR:HD1	2.07	0.58
2:G:117:ALA:O	2:G:118:TYR:C	2.41	0.58
2:G:123:ARG:CG	2:G:123:ARG:HH11	2.15	0.58
2:G:127:VAL:HG21	2:G:152:VAL:CG1	2.32	0.58
2:G:209:LEU:C	2:G:209:LEU:CD2	2.72	0.58
2:G:233:PHE:O	2:G:236:ALA:N	2.37	0.58
2:G:300:ILE:HA	2:G:342:MET:HA	1.85	0.58
2:A:172:ASP:O	2:A:176:LYS:N	2.31	0.58
2:A:5:ILE:CG1	2:A:30:LEU:HA	2.34	0.58
2:A:64:LEU:HG	2:A:65:GLU:OE1	2.04	0.58
2:A:69:TRP:O	2:A:73:ILE:HG12	2.03	0.58
1:B:219:C:H2'	1:B:220:C:C6	2.38	0.58
2:C:197:LYS:O	2:C:201:GLU:HG3	2.04	0.58
2:C:7:ASP:C	2:C:9:VAL:N	2.53	0.58
2:E:374:ILE:O	2:E:376:ARG:N	2.33	0.58
2:E:43:LEU:H	2:E:43:LEU:CD2	1.84	0.58
1:F:198:G:H2'	1:F:198:G:N3	2.17	0.58
2:G:233:PHE:CZ	2:G:240:GLY:HA3	2.38	0.58
2:G:374:ILE:O	2:G:376:ARG:N	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:420:TRP:C	2:G:421:TYR:HD1	2.07	0.58
1:H:213:A:OP1	2:G:385:THR:HA	2.03	0.58
1:H:217:U:H3'	1:H:218:G:H5''	1.86	0.58
2:A:250:THR:CG2	2:A:252:LYS:HD3	2.33	0.58
2:A:30:LEU:O	2:A:34:LEU:HD21	2.03	0.58
1:B:188:A:C8	2:A:399:ARG:NH2	2.71	0.58
2:C:144:LEU:O	2:C:145:GLN:O	2.22	0.58
2:C:378:LEU:HA	2:C:381:LEU:HD12	1.83	0.58
1:D:213:A:OP1	2:C:385:THR:HA	2.03	0.58
2:C:425:ASN:O	2:C:426:ARG:C	2.42	0.58
2:C:71:ILE:HA	2:C:74:VAL:HG13	1.84	0.58
2:E:157:GLU:HB2	2:E:166:ILE:HD13	1.84	0.58
2:E:180:ASP:CB	2:E:181:ILE:HD12	2.34	0.58
2:E:254:GLY:O	2:E:255:GLY:C	2.41	0.58
2:E:26:PHE:CE2	2:E:27:ILE:HD13	2.38	0.58
2:E:303:LYS:CG	2:E:342:MET:HB2	2.33	0.58
2:E:5:ILE:CG1	2:E:30:LEU:HA	2.34	0.58
2:G:172:ASP:O	2:G:176:LYS:N	2.31	0.58
2:G:175:VAL:O	2:G:178:LYS:N	2.34	0.58
2:G:30:LEU:O	2:G:34:LEU:HD21	2.03	0.58
2:G:5:ILE:CG1	2:G:30:LEU:HA	2.34	0.58
1:H:188:A:C8	2:G:399:ARG:NH2	2.71	0.58
2:A:99:ILE:CG2	2:A:183:ILE:HA	2.33	0.58
2:A:244:ILE:N	2:A:244:ILE:HD12	2.19	0.58
2:A:253:GLY:O	2:A:254:GLY:C	2.42	0.58
2:A:420:TRP:C	2:A:421:TYR:CD1	2.76	0.58
2:C:146:LEU:C	2:C:150:ILE:HG23	2.24	0.58
2:E:233:PHE:CZ	2:E:240:GLY:HA3	2.38	0.58
1:F:213:A:OP1	2:E:385:THR:HA	2.03	0.58
2:G:250:THR:CG2	2:G:252:LYS:HD3	2.33	0.58
2:G:296:ASP:O	2:G:298:GLU:N	2.36	0.58
1:H:197:G:N2	2:G:407:SER:HA	2.08	0.58
2:A:35:ILE:HD13	2:A:35:ILE:N	2.19	0.58
2:A:423:ASN:O	2:A:424:MET:C	2.40	0.58
2:C:233:PHE:CZ	2:C:240:GLY:HA3	2.38	0.58
2:C:26:PHE:CE2	2:C:27:ILE:HD13	2.38	0.58
2:C:412:GLU:HB3	2:C:416:GLU:OE2	2.04	0.58
2:C:86:LYS:HZ1	2:C:89:ASN:ND2	2.02	0.58
2:A:159:ASN:HD21	2:E:162:ASN:ND2	2.02	0.58
2:E:297:ILE:CD1	2:E:298:GLU:HG3	2.34	0.58
2:G:141:ASP:O	2:G:142:GLN:C	2.42	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:99:ILE:CG2	2:G:183:ILE:HA	2.33	0.58
2:G:5:ILE:CG2	2:G:6:ARG:N	2.66	0.58
2:A:153:GLN:HG2	2:A:154:VAL:N	2.18	0.57
2:A:210:LYS:N	2:A:210:LYS:HD3	2.18	0.57
2:A:26:PHE:CE2	2:A:27:ILE:HD13	2.38	0.57
2:A:389:LEU:H	2:A:389:LEU:CD2	2.06	0.57
2:C:195:GLU:HG3	2:C:196:THR:N	2.19	0.57
2:C:24:ASP:HA	2:C:27:ILE:HG13	1.85	0.57
2:C:30:LEU:O	2:C:34:LEU:HD21	2.03	0.57
2:E:143:LEU:CD1	2:E:144:LEU:N	2.67	0.57
2:G:250:THR:HG22	2:G:252:LYS:CD	2.31	0.57
2:G:253:GLY:O	2:G:254:GLY:C	2.42	0.57
2:A:10:ARG:C	2:A:12:PHE:N	2.58	0.57
2:A:146:LEU:C	2:A:150:ILE:HG23	2.24	0.57
2:A:287:PHE:O	2:A:288:VAL:C	2.40	0.57
2:C:244:ILE:N	2:C:244:ILE:HD12	2.19	0.57
2:C:5:ILE:CG1	2:C:30:LEU:HA	2.34	0.57
2:E:197:LYS:O	2:E:201:GLU:HG3	2.04	0.57
2:E:295:GLY:O	2:E:298:GLU:OE2	2.23	0.57
2:E:381:LEU:N	2:E:384:MET:SD	2.77	0.57
2:G:143:LEU:CD1	2:G:144:LEU:N	2.67	0.57
2:G:243:ILE:CD1	2:G:269:PHE:N	2.55	0.57
2:G:297:ILE:CD1	2:G:298:GLU:HG3	2.34	0.57
2:G:2:LEU:O	2:G:3:GLU:C	2.43	0.57
2:G:417:LEU:HD12	2:G:418:LEU:H	1.67	0.57
2:A:123:ARG:CG	2:A:123:ARG:HH11	2.15	0.57
2:A:316:LYS:NZ	2:A:431:VAL:HG21	2.18	0.57
1:B:213:A:OP1	2:A:385:THR:HA	2.03	0.57
2:A:81:LEU:C	2:A:81:LEU:HD12	2.25	0.57
2:C:38:ASP:HB2	2:C:252:LYS:CB	2.28	0.57
2:C:2:LEU:O	2:C:3:GLU:C	2.43	0.57
2:C:55:LEU:HD22	2:C:55:LEU:N	2.12	0.57
1:D:217:U:H3'	1:D:218:G:H5''	1.86	0.57
2:E:412:GLU:HB3	2:E:416:GLU:OE2	2.04	0.57
2:E:5:ILE:CG2	2:E:6:ARG:N	2.66	0.57
2:E:64:LEU:HG	2:E:65:GLU:OE1	2.04	0.57
2:E:81:LEU:C	2:E:81:LEU:HD12	2.25	0.57
2:G:171:VAL:N	2:G:174:PHE:HE2	2.02	0.57
2:G:188:GLY:HA3	2:G:201:GLU:CD	2.24	0.57
2:G:81:LEU:HG	2:G:82:PHE:N	2.19	0.57
2:G:7:ASP:C	2:G:9:VAL:N	2.53	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:195:GLU:HG3	2:A:196:THR:N	2.19	0.57
2:A:420:TRP:C	2:A:421:TYR:HD1	2.07	0.57
1:B:217:U:H3'	1:B:218:G:H5''	1.86	0.57
2:C:171:VAL:N	2:C:174:PHE:HE2	2.02	0.57
2:C:250:THR:HG22	2:C:252:LYS:CD	2.32	0.57
2:C:328:THR:O	2:C:331:ASP:HB2	2.03	0.57
2:C:5:ILE:O	2:C:8:ALA:N	2.37	0.57
2:E:150:ILE:HD11	2:E:152:VAL:CB	2.31	0.57
2:E:115:LYS:NZ	2:E:273:GLY:O	2.33	0.57
2:E:335:GLN:HE22	2:E:355:LEU:CA	2.15	0.57
2:E:370:GLY:O	2:E:374:ILE:HG22	2.05	0.57
2:E:316:LYS:NZ	2:E:431:VAL:HG21	2.18	0.57
2:G:180:ASP:CB	2:G:181:ILE:HD12	2.34	0.57
2:G:196:THR:O	2:G:200:GLU:HB2	2.04	0.57
2:G:102:VAL:CG1	2:G:202:MET:HG3	2.31	0.57
2:G:295:GLY:O	2:G:298:GLU:OE2	2.23	0.57
2:G:64:LEU:HG	2:G:65:GLU:OE1	2.04	0.57
2:A:102:VAL:CG1	2:A:202:MET:HG3	2.31	0.57
2:A:241:SER:CB	2:A:268:LYS:HE3	2.34	0.57
2:A:40:ASN:OD1	2:A:41:VAL:N	2.38	0.57
1:B:188:A:C6	2:A:399:ARG:HG2	2.39	0.57
2:C:140:TYR:CD1	2:C:140:TYR:N	2.72	0.57
2:C:141:ASP:O	2:C:142:GLN:C	2.42	0.57
2:E:102:VAL:CG1	2:E:202:MET:HG3	2.31	0.57
2:E:253:GLY:O	2:E:254:GLY:C	2.42	0.57
2:E:425:ASN:O	2:E:426:ARG:C	2.42	0.57
2:G:81:LEU:HD12	2:G:81:LEU:C	2.25	0.57
1:H:195:C:C2'	1:H:195:C:O2	2.52	0.57
2:C:180:ASP:CB	2:C:181:ILE:HD12	2.34	0.57
2:C:241:SER:CB	2:C:268:LYS:HE3	2.34	0.57
2:C:303:LYS:CB	2:C:342:MET:HB2	2.35	0.57
2:C:370:GLY:O	2:C:374:ILE:HG22	2.05	0.57
2:C:427:LEU:O	2:C:430:MET:HB2	2.05	0.57
2:C:64:LEU:HG	2:C:65:GLU:OE1	2.04	0.57
2:E:134:VAL:HG21	2:E:162:ASN:H	1.69	0.57
2:E:99:ILE:CG2	2:E:183:ILE:HA	2.33	0.57
2:E:196:THR:O	2:E:200:GLU:HB2	2.04	0.57
2:E:329:LEU:CA	2:E:332:VAL:HG23	2.24	0.57
2:E:34:LEU:O	2:E:37:SER:N	2.38	0.57
2:G:24:ASP:HA	2:G:27:ILE:HG13	1.85	0.57
2:G:381:LEU:N	2:G:384:MET:SD	2.77	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:425:ASN:O	2:G:428:LEU:N	2.38	0.57
2:A:143:LEU:CD1	2:A:144:LEU:N	2.67	0.57
2:A:195:GLU:O	2:A:198:LEU:N	2.38	0.57
2:A:295:GLY:O	2:A:298:GLU:OE2	2.23	0.57
2:C:107:SER:C	2:C:109:LYS:N	2.56	0.57
2:C:195:GLU:O	2:C:198:LEU:N	2.38	0.57
2:C:295:GLY:O	2:C:298:GLU:OE2	2.23	0.57
2:C:374:ILE:O	2:C:376:ARG:N	2.33	0.57
2:C:34:LEU:O	2:C:37:SER:N	2.38	0.57
2:C:81:LEU:C	2:C:81:LEU:HD12	2.25	0.57
2:E:195:GLU:HG3	2:E:196:THR:N	2.19	0.57
2:E:5:ILE:O	2:E:8:ALA:N	2.37	0.57
2:G:111:THR:HG1	2:G:112:THR:N	2.01	0.57
2:G:140:TYR:CD1	2:G:140:TYR:N	2.72	0.57
2:G:35:ILE:N	2:G:35:ILE:HD13	2.19	0.57
2:A:100:MET:HE3	2:A:206:TYR:HA	1.87	0.57
2:A:132:ALA:HB2	2:A:184:VAL:CG1	2.29	0.57
2:A:171:VAL:N	2:A:174:PHE:HE2	2.02	0.57
2:A:233:PHE:O	2:A:236:ALA:N	2.37	0.57
2:A:250:THR:HG22	2:A:252:LYS:CD	2.32	0.57
2:A:24:ASP:HA	2:A:27:ILE:HG13	1.85	0.57
2:A:288:VAL:CA	2:A:291:ILE:CD1	2.81	0.57
2:A:297:ILE:CD1	2:A:298:GLU:HG3	2.34	0.57
2:A:425:ASN:O	2:A:428:LEU:N	2.38	0.57
2:A:5:ILE:O	2:A:8:ALA:N	2.37	0.57
2:C:10:ARG:HG3	2:C:13:LEU:HD12	1.85	0.57
2:C:196:THR:O	2:C:200:GLU:HB2	2.04	0.57
2:C:102:VAL:CG1	2:C:202:MET:HG3	2.31	0.57
2:C:253:GLY:O	2:C:254:GLY:C	2.43	0.57
2:C:297:ILE:CD1	2:C:298:GLU:HG3	2.34	0.57
2:C:381:LEU:N	2:C:384:MET:SD	2.77	0.57
2:E:141:ASP:O	2:E:144:LEU:N	2.38	0.57
2:E:40:ASN:OD1	2:E:41:VAL:N	2.38	0.57
2:E:423:ASN:O	2:E:424:MET:C	2.40	0.57
2:G:141:ASP:O	2:G:144:LEU:N	2.38	0.57
2:G:195:GLU:O	2:G:198:LEU:N	2.38	0.57
2:G:427:LEU:O	2:G:430:MET:HB2	2.05	0.57
2:A:180:ASP:CB	2:A:181:ILE:HD12	2.34	0.57
2:A:412:GLU:HB3	2:A:416:GLU:OE2	2.04	0.57
2:A:414:VAL:HG13	2:A:417:LEU:HD11	1.87	0.57
2:C:141:ASP:O	2:C:144:LEU:N	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:365:ASP:OD1	2:C:366:GLN:N	2.38	0.57
2:E:146:LEU:C	2:E:150:ILE:HG23	2.24	0.57
2:E:171:VAL:N	2:E:174:PHE:HE2	2.02	0.57
2:E:303:LYS:CB	2:E:342:MET:HB2	2.35	0.57
2:E:52:LYS:O	2:E:55:LEU:HD23	2.05	0.57
2:G:284:ALA:O	2:G:287:PHE:N	2.38	0.57
1:H:212:A:H2'	1:H:213:A:O5'	2.04	0.57
2:A:141:ASP:O	2:A:144:LEU:N	2.38	0.57
2:A:303:LYS:CB	2:A:342:MET:HB2	2.35	0.57
2:A:381:LEU:N	2:A:384:MET:SD	2.77	0.57
2:A:391:ASN:HB3	2:A:394:ILE:HD13	1.87	0.57
2:A:81:LEU:HG	2:A:82:PHE:N	2.19	0.57
2:C:103:GLY:O	2:C:104:VAL:O	2.23	0.57
2:C:288:VAL:HA	2:C:291:ILE:CD1	2.22	0.57
2:C:40:ASN:OD1	2:C:41:VAL:N	2.38	0.57
2:C:414:VAL:HG13	2:C:417:LEU:HD11	1.87	0.57
2:E:103:GLY:O	2:E:104:VAL:O	2.23	0.57
2:E:195:GLU:O	2:E:198:LEU:N	2.38	0.57
2:G:129:LEU:HB2	2:G:154:VAL:HG13	1.87	0.57
2:G:10:ARG:C	2:G:12:PHE:N	2.58	0.57
2:G:348:VAL:CG2	2:G:349:LEU:H	2.17	0.57
2:G:34:LEU:O	2:G:37:SER:N	2.38	0.57
2:G:5:ILE:O	2:G:8:ALA:N	2.37	0.57
2:A:119:PHE:CE1	2:A:123:ARG:NE	2.73	0.56
2:A:134:VAL:HG21	2:A:162:ASN:H	1.69	0.56
2:A:257:LEU:HD12	2:A:258:SER:H	1.67	0.56
2:A:284:ALA:O	2:A:287:PHE:N	2.38	0.56
2:A:7:ASP:C	2:A:9:VAL:N	2.53	0.56
2:C:139:ALA:O	2:C:140:TYR:C	2.44	0.56
2:C:301:LEU:CD2	2:C:302:GLU:N	2.69	0.56
2:C:425:ASN:O	2:C:428:LEU:N	2.38	0.56
2:C:52:LYS:O	2:C:55:LEU:HD23	2.05	0.56
2:E:107:SER:C	2:E:109:LYS:N	2.56	0.56
2:E:216:LEU:HD11	2:E:229:LEU:HD21	1.87	0.56
2:E:241:SER:CB	2:E:268:LYS:HE3	2.34	0.56
2:E:2:LEU:O	2:E:3:GLU:C	2.43	0.56
2:G:119:PHE:CE1	2:G:123:ARG:NE	2.73	0.56
2:G:228:ASP:O	2:G:229:LEU:C	2.43	0.56
2:G:412:GLU:HB3	2:G:416:GLU:OE2	2.04	0.56
2:G:75:TYR:O	2:G:76:ASP:C	2.43	0.56
2:A:175:VAL:O	2:A:178:LYS:N	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:300:ILE:HA	2:A:342:MET:HA	1.85	0.56
2:A:310:TYR:C	2:A:312:LYS:N	2.53	0.56
2:A:348:VAL:CG2	2:A:349:LEU:H	2.17	0.56
2:A:2:LEU:O	2:A:3:GLU:C	2.43	0.56
2:A:414:VAL:O	2:A:418:LEU:HG	2.06	0.56
2:A:427:LEU:O	2:A:430:MET:HB2	2.05	0.56
2:A:81:LEU:HD12	2:A:81:LEU:O	2.05	0.56
1:B:195:C:C2'	1:B:195:C:O2	2.52	0.56
1:B:212:A:H2'	1:B:213:A:O5'	2.04	0.56
2:C:27:ILE:O	2:C:31:GLN:HB3	2.06	0.56
2:E:104:VAL:HG23	2:E:105:GLN:H	1.68	0.56
2:E:301:LEU:CD2	2:E:302:GLU:N	2.68	0.56
2:E:304:VAL:C	2:E:308:GLU:OE1	2.44	0.56
2:E:326:LYS:HD2	2:E:326:LYS:N	2.20	0.56
2:E:328:THR:O	2:E:331:ASP:HB2	2.04	0.56
2:E:427:LEU:O	2:E:430:MET:HB2	2.05	0.56
2:G:370:GLY:O	2:G:374:ILE:HG22	2.05	0.56
2:G:422:ASN:C	2:G:425:ASN:ND2	2.50	0.56
2:G:425:ASN:O	2:G:426:ARG:C	2.42	0.56
2:G:52:LYS:O	2:G:55:LEU:HD23	2.05	0.56
2:A:34:LEU:O	2:A:37:SER:N	2.38	0.56
2:A:52:LYS:O	2:A:55:LEU:HD23	2.05	0.56
2:A:71:ILE:CA	2:A:74:VAL:HG22	2.36	0.56
2:C:171:VAL:O	2:C:175:VAL:HG23	2.06	0.56
2:C:115:LYS:NZ	2:C:273:GLY:O	2.33	0.56
2:C:326:LYS:HD2	2:C:326:LYS:N	2.20	0.56
2:C:348:VAL:CG2	2:C:349:LEU:H	2.17	0.56
2:C:86:LYS:HZ3	2:C:89:ASN:CG	2.08	0.56
2:E:140:TYR:HA	2:E:143:LEU:CD2	2.35	0.56
2:E:391:ASN:HB3	2:E:394:ILE:CD1	2.36	0.56
2:E:71:ILE:CA	2:E:74:VAL:HG22	2.35	0.56
1:F:217:U:H3'	1:F:218:G:H5''	1.86	0.56
2:G:134:VAL:HG21	2:G:162:ASN:H	1.69	0.56
2:G:140:TYR:HD1	2:G:141:ASP:OD1	1.87	0.56
2:G:38:ASP:HB2	2:G:252:LYS:CB	2.28	0.56
2:G:71:ILE:CA	2:G:74:VAL:HG22	2.36	0.56
2:G:71:ILE:O	2:G:73:ILE:N	2.39	0.56
2:A:141:ASP:O	2:A:142:GLN:C	2.42	0.56
2:A:228:ASP:O	2:A:229:LEU:C	2.43	0.56
2:C:119:PHE:CE1	2:C:123:ARG:NE	2.73	0.56
2:C:391:ASN:HB3	2:C:394:ILE:HD13	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:212:A:H2'	1:D:213:A:O5'	2.04	0.56
2:E:171:VAL:O	2:E:175:VAL:HG23	2.06	0.56
2:E:277:ASP:O	2:E:279:LEU:N	2.39	0.56
2:E:300:ILE:HA	2:E:342:MET:HA	1.86	0.56
2:G:195:GLU:HG3	2:G:196:THR:N	2.19	0.56
2:G:241:SER:CB	2:G:268:LYS:HE3	2.34	0.56
2:G:31:GLN:O	2:G:34:LEU:HG	2.06	0.56
2:A:241:SER:HA	2:A:266:THR:HB	1.87	0.56
2:A:71:ILE:O	2:A:73:ILE:N	2.39	0.56
2:C:340:ARG:NH2	2:C:345:LEU:H	2.04	0.56
2:C:384:MET:HB3	2:C:388:GLU:OE1	2.05	0.56
2:E:198:LEU:O	2:E:201:GLU:HB2	2.06	0.56
2:E:233:PHE:O	2:E:237:SER:N	2.37	0.56
2:E:241:SER:HA	2:E:266:THR:HB	1.87	0.56
2:E:348:VAL:CG2	2:E:349:LEU:H	2.17	0.56
2:E:414:VAL:O	2:E:418:LEU:HG	2.05	0.56
2:E:71:ILE:HA	2:E:74:VAL:CG2	2.35	0.56
2:G:303:LYS:CB	2:G:342:MET:HB2	2.35	0.56
2:G:414:VAL:O	2:G:418:LEU:HG	2.05	0.56
2:G:81:LEU:HD12	2:G:81:LEU:O	2.05	0.56
2:A:109:LYS:HZ3	2:A:109:LYS:HB2	1.71	0.56
2:A:140:TYR:HA	2:A:143:LEU:CD2	2.35	0.56
2:A:171:VAL:O	2:A:175:VAL:HG23	2.06	0.56
2:A:31:GLN:O	2:A:34:LEU:HG	2.06	0.56
2:A:415:ARG:HA	2:A:418:LEU:CD1	2.36	0.56
2:C:140:TYR:HD1	2:C:141:ASP:OD1	1.88	0.56
2:C:228:ASP:O	2:C:229:LEU:C	2.43	0.56
2:C:81:LEU:HD12	2:C:81:LEU:O	2.05	0.56
2:C:81:LEU:HG	2:C:82:PHE:N	2.19	0.56
2:E:227:TYR:CB	2:E:259:ALA:HB1	2.35	0.56
2:E:268:LYS:O	2:E:282:PHE:HB3	2.06	0.56
2:E:376:ARG:HG3	2:E:376:ARG:NH2	2.20	0.56
2:E:384:MET:HB3	2:E:388:GLU:OE1	2.05	0.56
2:E:425:ASN:O	2:E:428:LEU:N	2.38	0.56
2:G:115:LYS:NZ	2:G:273:GLY:O	2.33	0.56
2:G:326:LYS:HD2	2:G:326:LYS:N	2.21	0.56
2:G:384:MET:HB3	2:G:388:GLU:OE1	2.05	0.56
2:A:277:ASP:O	2:A:279:LEU:N	2.39	0.56
2:A:369:ILE:HA	2:A:371:GLU:OE1	2.06	0.56
1:B:197:G:N2	2:A:407:SER:HA	2.08	0.56
2:A:75:TYR:O	2:A:76:ASP:C	2.43	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:134:VAL:HG21	2:C:162:ASN:H	1.69	0.56
2:C:150:ILE:HD11	2:C:152:VAL:CB	2.31	0.56
2:E:140:TYR:HD1	2:E:141:ASP:OD1	1.87	0.56
2:E:250:THR:O	2:E:251:ALA:HB2	2.06	0.56
1:F:211:C:H2'	1:F:211:C:O2	2.06	0.56
2:G:119:PHE:HE2	2:G:120:TYR:CZ	2.24	0.56
2:G:146:LEU:C	2:G:150:ILE:HG23	2.24	0.56
2:G:27:ILE:O	2:G:31:GLN:N	2.31	0.56
2:G:391:ASN:HB3	2:G:394:ILE:HD13	1.87	0.56
2:A:197:LYS:HA	2:A:200:GLU:HB3	1.88	0.56
2:A:297:ILE:HG13	2:A:298:GLU:H	1.70	0.56
2:A:370:GLY:O	2:A:374:ILE:HG22	2.05	0.56
2:C:129:LEU:HB2	2:C:154:VAL:HG13	1.87	0.56
2:C:35:ILE:O	2:C:38:ASP:O	2.24	0.56
2:C:391:ASN:HB3	2:C:394:ILE:CD1	2.36	0.56
2:C:395:ILE:H	2:C:395:ILE:CD1	2.17	0.56
2:E:284:ALA:O	2:E:287:PHE:N	2.38	0.56
2:E:340:ARG:NH2	2:E:345:LEU:H	2.04	0.56
2:G:197:LYS:HA	2:G:200:GLU:HB3	1.87	0.56
2:G:414:VAL:HG13	2:G:417:LEU:HD11	1.87	0.56
2:G:40:ASN:OD1	2:G:41:VAL:N	2.38	0.56
2:G:427:LEU:O	2:G:430:MET:N	2.35	0.56
2:G:66:ARG:HH11	2:G:66:ARG:CB	2.15	0.56
2:A:243:ILE:CD1	2:A:269:PHE:N	2.55	0.56
2:A:300:ILE:C	2:A:303:LYS:HG2	2.26	0.56
2:A:35:ILE:O	2:A:38:ASP:O	2.24	0.56
2:A:71:ILE:HA	2:A:74:VAL:CG2	2.35	0.56
2:A:80:LYS:HA	2:A:84:GLY:HA2	1.88	0.56
2:C:140:TYR:HA	2:C:143:LEU:CD2	2.35	0.56
2:C:284:ALA:O	2:C:287:PHE:N	2.38	0.56
2:C:8:ALA:CA	2:C:11:LYS:HB3	2.36	0.56
1:D:196:A:H2'	1:D:197:G:O4'	2.06	0.56
2:E:140:TYR:N	2:E:140:TYR:CD1	2.72	0.56
2:E:172:ASP:O	2:E:175:VAL:HB	2.06	0.56
2:E:348:VAL:O	2:E:352:ILE:N	2.39	0.56
2:G:112:THR:O	2:G:113:ALA:C	2.44	0.56
2:G:277:ASP:O	2:G:279:LEU:N	2.39	0.56
2:G:301:LEU:CD2	2:G:302:GLU:N	2.68	0.56
2:G:35:ILE:O	2:G:38:ASP:O	2.24	0.56
2:G:391:ASN:HB3	2:G:394:ILE:CD1	2.36	0.56
2:A:140:TYR:HD1	2:A:141:ASP:OD1	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:384:MET:HB3	2:A:388:GLU:OE1	2.05	0.56
2:C:31:GLN:O	2:C:34:LEU:HG	2.06	0.56
2:C:71:ILE:HA	2:C:74:VAL:CG2	2.35	0.56
2:C:75:TYR:O	2:C:76:ASP:C	2.43	0.56
2:E:106:GLY:HA2	2:E:109:LYS:CB	2.32	0.56
2:E:71:ILE:O	2:E:73:ILE:N	2.39	0.56
2:G:140:TYR:HA	2:G:143:LEU:CD2	2.35	0.56
2:G:198:LEU:O	2:G:201:GLU:HB2	2.06	0.56
2:G:250:THR:O	2:G:251:ALA:HB2	2.06	0.56
2:G:27:ILE:O	2:G:31:GLN:HB3	2.06	0.56
2:G:374:ILE:C	2:G:376:ARG:N	2.59	0.56
2:G:71:ILE:HA	2:G:74:VAL:CG2	2.35	0.56
1:H:196:A:H2'	1:H:197:G:O4'	2.06	0.56
2:A:119:PHE:HE2	2:A:120:TYR:CZ	2.24	0.56
2:A:150:ILE:HD11	2:A:152:VAL:CB	2.31	0.56
2:A:198:LEU:O	2:A:201:GLU:HB2	2.06	0.56
2:C:216:LEU:HD11	2:C:229:LEU:HD21	1.88	0.56
2:C:250:THR:O	2:C:251:ALA:HB2	2.06	0.56
2:C:414:VAL:O	2:C:418:LEU:HG	2.05	0.56
2:C:80:LYS:HA	2:C:84:GLY:HA2	1.88	0.56
2:E:109:LYS:HZ3	2:E:109:LYS:HB2	1.71	0.56
2:E:119:PHE:CE1	2:E:123:ARG:NE	2.73	0.56
2:E:35:ILE:HD13	2:E:35:ILE:N	2.19	0.56
2:E:414:VAL:HG13	2:E:417:LEU:HD11	1.87	0.56
2:G:103:GLY:O	2:G:104:VAL:O	2.23	0.56
2:G:340:ARG:NH2	2:G:345:LEU:H	2.04	0.56
2:G:415:ARG:HA	2:G:418:LEU:CD1	2.36	0.56
2:G:65:GLU:CD	2:G:65:GLU:H	2.10	0.56
2:G:80:LYS:HA	2:G:84:GLY:HA2	1.88	0.56
2:C:227:TYR:CB	2:C:259:ALA:HB1	2.35	0.55
2:C:335:GLN:HE22	2:C:355:LEU:CA	2.15	0.55
2:C:35:ILE:N	2:C:35:ILE:HD13	2.19	0.55
2:C:391:ASN:C	2:C:393:ASN:H	2.10	0.55
2:C:71:ILE:O	2:C:73:ILE:N	2.39	0.55
2:E:337:ILE:H	2:E:337:ILE:CD1	2.10	0.55
2:E:369:ILE:HA	2:E:371:GLU:OE1	2.06	0.55
1:F:212:A:H2'	1:F:213:A:O5'	2.05	0.55
2:G:391:ASN:C	2:G:393:ASN:H	2.10	0.55
2:G:75:TYR:CA	2:G:78:LEU:HG	2.36	0.55
2:A:112:THR:O	2:A:113:ALA:C	2.44	0.55
2:A:340:ARG:NH2	2:A:345:LEU:H	2.04	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:391:ASN:HB3	2:A:394:ILE:CD1	2.36	0.55
2:C:109:LYS:HB2	2:C:109:LYS:HZ3	1.71	0.55
2:C:296:ASP:OD1	2:C:297:ILE:N	2.34	0.55
2:C:308:GLU:O	2:C:309:GLU:CB	2.55	0.55
2:E:139:ALA:O	2:E:140:TYR:C	2.44	0.55
2:E:141:ASP:O	2:E:142:GLN:C	2.42	0.55
2:E:228:ASP:O	2:E:229:LEU:C	2.43	0.55
2:E:31:GLN:O	2:E:34:LEU:HG	2.06	0.55
2:E:391:ASN:HB3	2:E:394:ILE:HD13	1.87	0.55
2:E:384:MET:CG	2:E:403:ILE:HD13	2.34	0.55
2:E:425:ASN:H	2:E:425:ASN:ND2	2.04	0.55
2:E:43:LEU:O	2:E:46:SER:N	2.35	0.55
2:E:81:LEU:HG	2:E:82:PHE:N	2.19	0.55
2:G:241:SER:HA	2:G:266:THR:HB	1.87	0.55
2:A:154:VAL:CG1	2:A:155:TYR:H	2.11	0.55
2:C:119:PHE:HE2	2:C:120:TYR:CZ	2.24	0.55
2:C:257:LEU:HA	2:C:260:VAL:HG21	1.89	0.55
2:C:427:LEU:O	2:C:430:MET:N	2.35	0.55
2:C:65:GLU:CD	2:C:65:GLU:H	2.09	0.55
2:E:8:ALA:CA	2:E:11:LYS:HB3	2.36	0.55
2:E:75:TYR:CA	2:E:78:LEU:HG	2.36	0.55
2:E:81:LEU:HD12	2:E:81:LEU:O	2.05	0.55
2:G:109:LYS:HZ3	2:G:109:LYS:HB2	1.70	0.55
2:G:52:LYS:O	2:G:53:GLU:C	2.44	0.55
2:A:103:GLY:O	2:A:104:VAL:O	2.23	0.55
2:A:215:ILE:N	2:A:215:ILE:HD12	2.22	0.55
2:A:326:LYS:N	2:A:326:LYS:HD2	2.20	0.55
2:A:348:VAL:O	2:A:352:ILE:N	2.39	0.55
2:A:38:ASP:HB2	2:A:252:LYS:CB	2.28	0.55
2:A:38:ASP:O	2:A:39:VAL:O	2.25	0.55
2:A:427:LEU:O	2:A:430:MET:N	2.35	0.55
2:C:172:ASP:O	2:C:175:VAL:HB	2.06	0.55
2:C:277:ASP:O	2:C:279:LEU:N	2.39	0.55
2:C:71:ILE:CA	2:C:74:VAL:HG22	2.36	0.55
2:E:129:LEU:HB2	2:E:154:VAL:HG13	1.87	0.55
2:E:415:ARG:HA	2:E:418:LEU:CD1	2.35	0.55
2:G:172:ASP:O	2:G:175:VAL:HB	2.06	0.55
2:G:215:ILE:N	2:G:215:ILE:HD12	2.22	0.55
2:G:233:PHE:O	2:G:237:SER:N	2.37	0.55
2:G:257:LEU:HA	2:G:260:VAL:HG21	1.89	0.55
2:G:339:LEU:CD2	2:G:339:LEU:H	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:129:LEU:HB2	2:A:154:VAL:HG13	1.87	0.55
2:A:268:LYS:O	2:A:282:PHE:HB3	2.06	0.55
2:A:301:LEU:CD2	2:A:302:GLU:N	2.68	0.55
2:A:52:LYS:O	2:A:53:GLU:C	2.44	0.55
1:B:196:A:H2'	1:B:197:G:O4'	2.06	0.55
2:C:197:LYS:HA	2:C:200:GLU:HB3	1.88	0.55
2:C:268:LYS:O	2:C:282:PHE:HB3	2.06	0.55
2:E:197:LYS:HA	2:E:200:GLU:HB3	1.88	0.55
2:E:257:LEU:HA	2:E:260:VAL:HG21	1.89	0.55
2:E:297:ILE:O	2:E:299:SER:N	2.39	0.55
2:E:27:ILE:O	2:E:31:GLN:HB3	2.06	0.55
2:E:35:ILE:O	2:E:38:ASP:O	2.24	0.55
2:G:154:VAL:CG1	2:G:155:TYR:H	2.11	0.55
2:G:233:PHE:O	2:G:234:HIS:C	2.44	0.55
2:G:297:ILE:O	2:G:299:SER:N	2.39	0.55
2:A:183:ILE:N	2:A:183:ILE:CD1	2.69	0.55
2:A:250:THR:O	2:A:251:ALA:HB2	2.06	0.55
2:A:257:LEU:HA	2:A:260:VAL:HG21	1.89	0.55
2:A:27:ILE:O	2:A:31:GLN:N	2.31	0.55
2:A:27:ILE:O	2:A:31:GLN:HB3	2.06	0.55
2:A:374:ILE:C	2:A:376:ARG:N	2.59	0.55
2:C:115:LYS:O	2:C:119:PHE:CB	2.55	0.55
2:C:134:VAL:HB	2:C:161:GLN:HA	1.89	0.55
2:C:241:SER:HA	2:C:266:THR:HB	1.87	0.55
2:C:297:ILE:O	2:C:299:SER:N	2.39	0.55
2:C:348:VAL:O	2:C:352:ILE:N	2.39	0.55
2:C:52:LYS:O	2:C:53:GLU:C	2.44	0.55
2:C:75:TYR:CA	2:C:78:LEU:HG	2.36	0.55
2:E:80:LYS:HA	2:E:84:GLY:HA2	1.88	0.55
1:F:196:A:H2'	1:F:197:G:O4'	2.06	0.55
2:G:134:VAL:HB	2:G:161:GLN:HA	1.89	0.55
2:G:297:ILE:HG13	2:G:298:GLU:H	1.70	0.55
2:A:172:ASP:O	2:A:175:VAL:HB	2.06	0.55
2:A:227:TYR:CB	2:A:259:ALA:HB1	2.35	0.55
1:B:188:A:H8	1:B:188:A:OP1	1.90	0.55
2:C:198:LEU:O	2:C:201:GLU:HB2	2.06	0.55
2:C:233:PHE:HA	2:C:236:ALA:CB	2.37	0.55
2:C:300:ILE:C	2:C:303:LYS:HG2	2.26	0.55
2:C:376:ARG:HG3	2:C:376:ARG:NH2	2.20	0.55
2:E:112:THR:O	2:E:113:ALA:C	2.44	0.55
2:E:119:PHE:HE2	2:E:120:TYR:CZ	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:243:ILE:C	2:E:244:ILE:HD12	2.27	0.55
2:E:391:ASN:C	2:E:393:ASN:H	2.10	0.55
2:G:171:VAL:O	2:G:175:VAL:HG23	2.06	0.55
2:G:268:LYS:O	2:G:282:PHE:HB3	2.06	0.55
2:A:134:VAL:HB	2:A:161:GLN:HA	1.89	0.55
2:A:167:ALA:O	2:A:168:LYS:C	2.45	0.55
2:A:233:PHE:O	2:A:234:HIS:C	2.44	0.55
2:A:233:PHE:HA	2:A:236:ALA:CB	2.37	0.55
2:A:1:MET:CG	2:A:2:LEU:HD23	2.37	0.55
2:A:27:ILE:HA	2:A:30:LEU:CD2	2.37	0.55
2:C:10:ARG:C	2:C:12:PHE:N	2.58	0.55
2:C:112:THR:O	2:C:113:ALA:C	2.44	0.55
2:C:1:MET:HG2	2:C:2:LEU:HD23	1.89	0.55
2:C:297:ILE:HG13	2:C:298:GLU:H	1.70	0.55
2:C:425:ASN:ND2	2:C:425:ASN:H	2.04	0.55
1:D:188:A:OP1	1:D:188:A:H8	1.90	0.55
2:E:143:LEU:HD12	2:E:143:LEU:C	2.27	0.55
2:E:1:MET:HG2	2:E:2:LEU:HD23	1.89	0.55
2:E:308:GLU:O	2:E:309:GLU:CB	2.55	0.55
2:E:27:ILE:HA	2:E:30:LEU:CD2	2.37	0.55
2:E:38:ASP:O	2:E:39:VAL:O	2.25	0.55
2:E:395:ILE:CD1	2:E:395:ILE:H	2.17	0.55
2:E:75:TYR:O	2:E:76:ASP:C	2.43	0.55
2:G:150:ILE:HD11	2:G:152:VAL:CB	2.31	0.55
2:G:216:LEU:HD11	2:G:229:LEU:HD21	1.88	0.55
2:G:233:PHE:HA	2:G:236:ALA:CB	2.37	0.55
2:G:243:ILE:C	2:G:244:ILE:HD12	2.27	0.55
2:G:348:VAL:O	2:G:352:ILE:N	2.39	0.55
2:G:369:ILE:HA	2:G:371:GLU:OE1	2.06	0.55
2:G:38:ASP:O	2:G:39:VAL:O	2.25	0.55
1:H:188:A:OP1	1:H:188:A:H8	1.90	0.55
2:C:140:TYR:HA	2:C:143:LEU:HG	1.89	0.55
2:C:141:ASP:O	2:C:143:LEU:N	2.40	0.55
2:C:216:LEU:N	2:C:242:VAL:HG12	2.19	0.55
2:C:303:LYS:O	2:C:306:GLY:N	2.40	0.55
2:C:304:VAL:HG12	2:C:308:GLU:HB2	1.89	0.55
2:E:215:ILE:N	2:E:215:ILE:HD12	2.22	0.55
2:E:303:LYS:O	2:E:306:GLY:N	2.40	0.55
2:E:52:LYS:O	2:E:53:GLU:C	2.44	0.55
2:G:303:LYS:O	2:G:306:GLY:N	2.40	0.55
2:A:139:ALA:O	2:A:140:TYR:C	2.44	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:141:ASP:O	2:A:143:LEU:N	2.40	0.55
2:A:296:ASP:OD1	2:A:297:ILE:N	2.34	0.55
2:A:297:ILE:O	2:A:299:SER:N	2.39	0.55
2:A:75:TYR:CA	2:A:78:LEU:HG	2.36	0.55
2:A:79:SER:O	2:A:82:PHE:N	2.40	0.55
2:C:167:ALA:O	2:C:168:LYS:C	2.45	0.55
2:C:27:ILE:HA	2:C:30:LEU:CD2	2.37	0.55
2:C:369:ILE:HA	2:C:371:GLU:OE1	2.06	0.55
2:C:421:TYR:N	2:C:421:TYR:CD1	2.74	0.55
1:D:196:A:H2'	1:D:197:G:H5'	1.89	0.55
1:D:211:C:H2'	1:D:211:C:O2	2.06	0.55
2:E:134:VAL:HB	2:E:161:GLN:HA	1.89	0.55
2:E:297:ILE:HG13	2:E:298:GLU:H	1.70	0.55
2:E:348:VAL:CG2	2:E:349:LEU:N	2.70	0.55
2:E:65:GLU:H	2:E:65:GLU:CD	2.10	0.55
1:F:188:A:H8	1:F:188:A:OP1	1.90	0.55
1:H:198:G:H2'	1:H:199:C:O5'	2.06	0.55
2:A:24:ASP:CA	2:A:27:ILE:HG12	2.38	0.54
2:A:303:LYS:O	2:A:306:GLY:N	2.40	0.54
2:A:75:TYR:C	2:A:75:TYR:CD2	2.79	0.54
2:C:100:MET:HE3	2:C:206:TYR:HA	1.89	0.54
2:C:104:VAL:HG23	2:C:105:GLN:H	1.68	0.54
2:C:143:LEU:C	2:C:143:LEU:HD12	2.27	0.54
2:C:233:PHE:O	2:C:237:SER:N	2.37	0.54
2:C:424:MET:O	2:C:428:LEU:N	2.36	0.54
1:D:198:G:H2'	1:D:199:C:O5'	2.06	0.54
2:E:115:LYS:O	2:E:119:PHE:CB	2.55	0.54
2:E:172:ASP:O	2:E:176:LYS:N	2.31	0.54
2:E:389:LEU:CD2	2:E:389:LEU:H	2.06	0.54
2:E:38:ASP:HB2	2:E:252:LYS:CB	2.28	0.54
2:G:140:TYR:HA	2:G:143:LEU:HG	1.89	0.54
2:G:300:ILE:C	2:G:303:LYS:HG2	2.26	0.54
2:G:335:GLN:HE22	2:G:355:LEU:CA	2.15	0.54
2:A:335:GLN:HE22	2:A:355:LEU:CA	2.15	0.54
2:A:348:VAL:CG2	2:A:349:LEU:N	2.70	0.54
2:A:417:LEU:HD12	2:A:418:LEU:H	1.67	0.54
2:A:65:GLU:H	2:A:65:GLU:CD	2.10	0.54
2:C:38:ASP:O	2:C:39:VAL:O	2.25	0.54
2:C:420:TRP:N	2:C:420:TRP:CE3	2.75	0.54
2:E:141:ASP:O	2:E:143:LEU:N	2.40	0.54
2:E:223:GLY:HA2	2:E:256:ALA:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:196:A:H2'	1:F:197:G:H5'	1.89	0.54
2:G:143:LEU:C	2:G:143:LEU:HD12	2.27	0.54
2:G:223:GLY:HA2	2:G:256:ALA:HB2	1.90	0.54
2:G:216:LEU:N	2:G:242:VAL:HG12	2.19	0.54
2:G:24:ASP:CA	2:G:27:ILE:HG12	2.38	0.54
2:G:1:MET:HG2	2:G:2:LEU:HD23	1.89	0.54
2:G:98:ILE:HB	2:G:212:ASP:H	1.73	0.54
2:A:1:MET:HG2	2:A:2:LEU:HD23	1.89	0.54
2:A:243:ILE:C	2:A:244:ILE:HD12	2.27	0.54
2:C:223:GLY:HA2	2:C:256:ALA:HB2	1.90	0.54
2:C:281:THR:CG2	2:C:282:PHE:H	2.18	0.54
2:C:348:VAL:CG2	2:C:349:LEU:N	2.70	0.54
2:C:415:ARG:HA	2:C:418:LEU:CD1	2.35	0.54
2:C:422:ASN:C	2:C:425:ASN:ND2	2.50	0.54
2:C:98:ILE:HB	2:C:212:ASP:H	1.73	0.54
1:D:184:G:H2'	1:D:185:G:O4'	2.08	0.54
2:E:135:TYR:CE1	2:E:188:GLY:HA2	2.43	0.54
2:E:233:PHE:HA	2:E:236:ALA:CB	2.37	0.54
2:E:300:ILE:C	2:E:303:LYS:HG2	2.26	0.54
2:E:420:TRP:CE3	2:E:420:TRP:N	2.75	0.54
2:G:141:ASP:O	2:G:143:LEU:N	2.40	0.54
2:G:26:PHE:O	2:G:30:LEU:N	2.36	0.54
2:C:215:ILE:N	2:C:215:ILE:HD12	2.22	0.54
2:C:23:VAL:O	2:C:27:ILE:HG12	2.08	0.54
2:E:10:ARG:C	2:E:12:PHE:N	2.58	0.54
2:G:1:MET:CG	2:G:2:LEU:HD23	2.37	0.54
2:G:348:VAL:CG2	2:G:349:LEU:N	2.70	0.54
2:G:79:SER:O	2:G:82:PHE:N	2.40	0.54
2:A:8:ALA:CA	2:A:11:LYS:HB3	2.36	0.54
2:A:216:LEU:HD11	2:A:229:LEU:HD21	1.88	0.54
1:B:196:A:H2'	1:B:197:G:H5'	1.89	0.54
1:B:198:G:H2'	1:B:199:C:O5'	2.06	0.54
2:C:106:GLY:HA2	2:C:109:LYS:CB	2.32	0.54
2:C:135:TYR:CE1	2:C:188:GLY:HA2	2.43	0.54
2:G:114:GLY:O	2:G:115:LYS:C	2.45	0.54
2:G:23:VAL:O	2:G:27:ILE:HG12	2.08	0.54
2:G:296:ASP:OD1	2:G:297:ILE:N	2.34	0.54
2:G:420:TRP:N	2:G:420:TRP:CE3	2.75	0.54
2:A:135:TYR:CE1	2:A:188:GLY:HA2	2.43	0.54
2:A:216:LEU:HD23	2:A:216:LEU:C	2.28	0.54
2:A:223:GLY:HA2	2:A:256:ALA:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:184:G:H2'	1:B:185:G:O4'	2.08	0.54
1:B:211:C:H2'	1:B:211:C:O2	2.06	0.54
2:C:243:ILE:C	2:C:244:ILE:HD12	2.27	0.54
2:C:394:ILE:H	2:C:395:ILE:CD1	2.12	0.54
2:G:8:ALA:CA	2:G:11:LYS:HB3	2.36	0.54
2:G:139:ALA:O	2:G:140:TYR:C	2.44	0.54
2:G:167:ALA:O	2:G:168:LYS:C	2.46	0.54
2:G:27:ILE:HA	2:G:30:LEU:CD2	2.37	0.54
2:G:330:ARG:C	2:G:332:VAL:N	2.60	0.54
2:G:71:ILE:C	2:G:73:ILE:N	2.60	0.54
2:A:115:LYS:O	2:A:119:PHE:CB	2.55	0.54
2:A:12:PHE:CZ	2:A:67:LYS:HB3	2.43	0.54
2:A:140:TYR:HA	2:A:143:LEU:HG	1.89	0.54
1:B:203:G:H2'	1:B:204:A:C4	2.43	0.54
2:C:233:PHE:O	2:C:234:HIS:C	2.44	0.54
1:D:203:G:H2'	1:D:204:A:C4	2.43	0.54
2:E:167:ALA:O	2:E:168:LYS:C	2.46	0.54
2:E:224:GLN:O	2:E:227:TYR:HB2	2.08	0.54
2:E:414:VAL:HG12	2:E:418:LEU:HD21	1.90	0.54
1:F:184:G:H2'	1:F:185:G:C1'	2.38	0.54
1:F:198:G:H2'	1:F:199:C:O5'	2.06	0.54
2:G:135:TYR:CE1	2:G:188:GLY:HA2	2.43	0.54
2:G:425:ASN:ND2	2:G:425:ASN:H	2.04	0.54
2:A:224:GLN:O	2:A:227:TYR:HB2	2.08	0.54
2:A:414:VAL:HG12	2:A:418:LEU:HD21	1.90	0.54
2:A:47:LEU:O	2:A:48:THR:C	2.46	0.54
2:A:74:VAL:O	2:A:78:LEU:HG	2.08	0.54
2:C:12:PHE:CZ	2:C:67:LYS:HB3	2.43	0.54
2:C:26:PHE:O	2:C:30:LEU:N	2.36	0.54
2:C:47:LEU:O	2:C:48:THR:C	2.46	0.54
2:C:79:SER:O	2:C:82:PHE:N	2.40	0.54
2:E:111:THR:O	2:E:113:ALA:N	2.41	0.54
2:E:140:TYR:HA	2:E:143:LEU:HG	1.89	0.54
2:E:98:ILE:HB	2:E:212:ASP:H	1.73	0.54
2:E:115:LYS:HD3	2:E:279:LEU:H	1.73	0.54
2:E:316:LYS:HZ2	2:E:316:LYS:HB3	1.73	0.54
2:E:340:ARG:CZ	2:E:345:LEU:HB2	2.38	0.54
2:E:358:MET:O	2:E:359:LEU:HD23	2.08	0.54
2:E:424:MET:O	2:E:428:LEU:N	2.36	0.54
2:E:79:SER:O	2:E:82:PHE:N	2.40	0.54
2:G:144:LEU:CD2	2:G:145:GLN:N	2.69	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:114:GLY:O	2:A:115:LYS:C	2.45	0.54
2:A:143:LEU:C	2:A:143:LEU:HD12	2.27	0.54
2:A:216:LEU:N	2:A:242:VAL:HG12	2.19	0.54
2:A:391:ASN:C	2:A:393:ASN:H	2.10	0.54
2:A:417:LEU:CD1	2:A:421:TYR:CE2	2.91	0.54
2:C:224:GLN:O	2:C:227:TYR:HB2	2.08	0.54
2:C:24:ASP:CA	2:C:27:ILE:HG12	2.38	0.54
2:C:316:LYS:HB3	2:C:316:LYS:HZ2	1.73	0.54
2:C:340:ARG:CZ	2:C:345:LEU:HB2	2.38	0.54
2:E:24:ASP:CA	2:E:27:ILE:HG12	2.38	0.54
2:E:281:THR:HG22	2:E:282:PHE:N	2.23	0.54
2:E:288:VAL:HA	2:E:291:ILE:CD1	2.22	0.54
1:F:184:G:H2'	1:F:185:G:O4'	2.08	0.54
2:G:281:THR:HG22	2:G:282:PHE:N	2.23	0.54
2:G:377:TRP:HA	2:G:377:TRP:CE3	2.43	0.54
2:A:291:ILE:HD13	2:A:291:ILE:N	2.20	0.54
2:A:371:GLU:HG3	2:A:372:GLU:HG3	1.90	0.54
2:A:420:TRP:CE3	2:A:420:TRP:N	2.75	0.54
2:A:98:ILE:HB	2:A:212:ASP:H	1.73	0.54
2:C:356:GLY:C	2:C:357:ILE:CG1	2.76	0.54
2:C:377:TRP:HA	2:C:377:TRP:CE3	2.43	0.54
2:C:329:LEU:CB	2:C:392:PRO:HG2	2.38	0.54
2:C:399:ARG:CG	2:C:399:ARG:HH11	2.21	0.54
2:C:399:ARG:NH1	2:C:399:ARG:HB3	2.03	0.54
2:E:110:THR:O	2:E:111:THR:O	2.26	0.54
2:E:5:ILE:HG13	2:E:30:LEU:HA	1.90	0.54
2:G:115:LYS:O	2:G:119:PHE:CB	2.55	0.54
2:A:111:THR:O	2:A:113:ALA:N	2.41	0.53
2:A:23:VAL:O	2:A:27:ILE:HG12	2.08	0.53
2:A:276:ILE:HG13	2:A:276:ILE:O	2.09	0.53
2:A:75:TYR:HA	2:A:78:LEU:HD12	1.90	0.53
2:C:136:ARG:HG2	2:C:137:PRO:HD2	1.89	0.53
2:E:144:LEU:CD2	2:E:145:GLN:N	2.69	0.53
2:E:153:GLN:HG2	2:E:154:VAL:H	1.73	0.53
2:E:129:LEU:C	2:E:154:VAL:HG13	2.29	0.53
2:E:257:LEU:O	2:E:260:VAL:HB	2.09	0.53
2:E:399:ARG:HA	2:E:402:ARG:HH12	1.73	0.53
1:F:203:G:H2'	1:F:204:A:C4	2.43	0.53
2:G:227:TYR:CB	2:G:259:ALA:HB1	2.35	0.53
2:G:295:GLY:HA3	2:G:298:GLU:OE2	2.08	0.53
2:G:75:TYR:HA	2:G:78:LEU:HD12	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:196:A:H2'	1:H:197:G:H5'	1.89	0.53
2:A:148:ASN:O	2:A:150:ILE:N	2.42	0.53
2:A:369:ILE:HG22	2:A:373:LYS:HZ1	1.73	0.53
2:C:129:LEU:C	2:C:154:VAL:HG13	2.29	0.53
2:C:219:ASP:C	2:C:221:SER:H	2.12	0.53
2:C:259:ALA:O	2:C:260:VAL:C	2.47	0.53
2:C:359:LEU:O	2:C:361:THR:N	2.42	0.53
2:C:361:THR:HB	2:C:362:PRO:HD2	1.91	0.53
2:E:23:VAL:O	2:E:27:ILE:HG12	2.08	0.53
2:E:399:ARG:CG	2:E:399:ARG:HH11	2.21	0.53
2:G:260:VAL:O	2:G:261:VAL:C	2.46	0.53
2:G:276:ILE:HG13	2:G:276:ILE:O	2.09	0.53
2:G:304:VAL:HG12	2:G:308:GLU:HB2	1.89	0.53
2:G:5:ILE:HG13	2:G:30:LEU:HA	1.90	0.53
1:H:203:G:H2'	1:H:204:A:C4	2.43	0.53
2:A:23:VAL:O	2:A:26:PHE:HB3	2.08	0.53
2:C:98:ILE:CD1	2:C:211:PRO:HA	2.38	0.53
2:C:267:ILE:N	2:C:267:ILE:CD1	2.71	0.53
2:C:1:MET:CG	2:C:2:LEU:HD23	2.37	0.53
2:E:100:MET:HE3	2:E:206:TYR:HA	1.89	0.53
2:E:136:ARG:HG2	2:E:137:PRO:HD2	1.89	0.53
2:E:1:MET:CG	2:E:2:LEU:HD23	2.37	0.53
2:E:9:VAL:HG21	2:E:292:LEU:HA	1.91	0.53
2:E:315:LYS:HB3	2:E:315:LYS:HZ3	1.73	0.53
2:E:75:TYR:CD2	2:E:75:TYR:C	2.79	0.53
2:G:110:THR:O	2:G:111:THR:O	2.26	0.53
2:G:98:ILE:CD1	2:G:211:PRO:HA	2.38	0.53
2:G:216:LEU:C	2:G:216:LEU:HD23	2.28	0.53
2:G:12:PHE:CZ	2:G:67:LYS:HB3	2.43	0.53
1:H:211:C:H2'	1:H:211:C:O2	2.06	0.53
2:A:115:LYS:HD3	2:A:279:LEU:H	1.73	0.53
2:A:281:THR:HG22	2:A:282:PHE:N	2.23	0.53
2:A:330:ARG:C	2:A:332:VAL:N	2.60	0.53
2:A:417:LEU:CD1	2:A:418:LEU:HD23	2.39	0.53
2:C:106:GLY:HA2	2:C:109:LYS:CE	2.39	0.53
2:C:114:GLY:O	2:C:115:LYS:C	2.45	0.53
2:C:148:ASN:O	2:C:150:ILE:N	2.42	0.53
2:C:23:VAL:O	2:C:26:PHE:HB3	2.08	0.53
2:C:414:VAL:O	2:C:417:LEU:CD1	2.56	0.53
1:D:184:G:H2'	1:D:185:G:C1'	2.38	0.53
2:E:329:LEU:CB	2:E:392:PRO:HG2	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:356:GLY:C	2:E:357:ILE:CG1	2.76	0.53
2:E:427:LEU:O	2:E:430:MET:N	2.35	0.53
2:G:111:THR:O	2:G:113:ALA:N	2.41	0.53
2:G:135:TYR:CZ	2:G:188:GLY:HA2	2.44	0.53
2:G:148:ASN:O	2:G:150:ILE:N	2.42	0.53
2:G:359:LEU:O	2:G:361:THR:N	2.42	0.53
2:G:74:VAL:O	2:G:78:LEU:HG	2.08	0.53
2:A:110:THR:O	2:A:111:THR:O	2.26	0.53
2:A:281:THR:CG2	2:A:282:PHE:H	2.18	0.53
2:A:356:GLY:C	2:A:357:ILE:CG1	2.76	0.53
2:A:377:TRP:CZ2	2:A:417:LEU:HB3	2.44	0.53
2:A:399:ARG:HH11	2:A:399:ARG:CG	2.21	0.53
1:B:212:A:C2'	1:B:213:A:O5'	2.57	0.53
2:C:144:LEU:CD2	2:C:145:GLN:N	2.69	0.53
2:C:145:GLN:O	2:C:146:LEU:C	2.47	0.53
2:C:414:VAL:HG12	2:C:418:LEU:HD21	1.90	0.53
2:E:114:GLY:O	2:E:115:LYS:C	2.45	0.53
2:E:148:ASN:O	2:E:150:ILE:N	2.42	0.53
2:E:396:ASP:N	2:E:396:ASP:OD2	2.42	0.53
2:E:396:ASP:OD1	2:E:399:ARG:HG3	2.08	0.53
2:G:297:ILE:CG1	2:G:298:GLU:N	2.72	0.53
2:G:340:ARG:CZ	2:G:345:LEU:HB2	2.38	0.53
2:G:356:GLY:C	2:G:357:ILE:CG1	2.76	0.53
2:G:329:LEU:CB	2:G:392:PRO:HG2	2.38	0.53
2:A:136:ARG:HG2	2:A:137:PRO:HD2	1.89	0.53
2:A:414:VAL:O	2:A:417:LEU:CD1	2.56	0.53
2:C:100:MET:HB3	2:C:214:VAL:HG22	1.90	0.53
2:C:216:LEU:C	2:C:216:LEU:HD23	2.28	0.53
2:C:257:LEU:O	2:C:260:VAL:HB	2.09	0.53
2:C:260:VAL:O	2:C:261:VAL:C	2.46	0.53
2:C:72:SER:O	2:C:76:ASP:N	2.37	0.53
1:D:212:A:C2'	1:D:213:A:O5'	2.57	0.53
2:E:12:PHE:CZ	2:E:67:LYS:HB3	2.43	0.53
2:E:75:TYR:HA	2:E:78:LEU:HD12	1.90	0.53
2:G:106:GLY:HA2	2:G:109:LYS:CE	2.39	0.53
2:G:136:ARG:HG2	2:G:137:PRO:HD2	1.89	0.53
2:G:288:VAL:O	2:G:291:ILE:HG12	2.09	0.53
2:G:414:VAL:HG12	2:G:418:LEU:HD21	1.90	0.53
2:G:417:LEU:CD1	2:G:418:LEU:HD23	2.39	0.53
2:G:424:MET:HG3	2:G:425:ASN:N	2.24	0.53
1:H:184:G:H2'	1:H:185:G:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:132:ALA:CB	2:A:185:ASP:O	2.51	0.53
2:A:233:PHE:O	2:A:237:SER:N	2.37	0.53
2:A:288:VAL:O	2:A:291:ILE:HG12	2.09	0.53
2:A:295:GLY:HA3	2:A:298:GLU:OE2	2.08	0.53
2:A:303:LYS:HB2	2:A:342:MET:HB2	1.91	0.53
1:B:184:G:H2'	1:B:185:G:C1'	2.38	0.53
1:B:210:G:O2'	1:B:211:C:O5'	2.27	0.53
2:C:115:LYS:HD3	2:C:279:LEU:H	1.73	0.53
2:C:350:GLN:H	2:C:350:GLN:CD	2.12	0.53
2:C:358:MET:O	2:C:359:LEU:HD23	2.08	0.53
2:C:396:ASP:OD2	2:C:396:ASP:N	2.42	0.53
2:C:9:VAL:HG21	2:C:292:LEU:HA	1.91	0.53
2:E:98:ILE:CD1	2:E:211:PRO:HA	2.39	0.53
2:E:303:LYS:HB2	2:E:342:MET:HB2	1.91	0.53
2:E:330:ARG:C	2:E:332:VAL:N	2.60	0.53
2:E:74:VAL:O	2:E:78:LEU:HG	2.08	0.53
1:F:212:A:C2'	1:F:213:A:O5'	2.57	0.53
2:G:129:LEU:C	2:G:154:VAL:HG13	2.29	0.53
2:G:300:ILE:C	2:G:300:ILE:HD12	2.29	0.53
2:G:358:MET:O	2:G:359:LEU:HD23	2.08	0.53
2:G:371:GLU:HG3	2:G:372:GLU:HG3	1.90	0.53
2:A:106:GLY:HA2	2:A:109:LYS:CE	2.39	0.53
2:A:135:TYR:CZ	2:A:188:GLY:HA2	2.43	0.53
2:A:350:GLN:H	2:A:350:GLN:CD	2.12	0.53
2:C:110:THR:O	2:C:111:THR:O	2.27	0.53
2:C:108:GLY:CA	2:C:112:THR:HG23	2.39	0.53
2:C:146:LEU:N	2:C:146:LEU:CD2	2.68	0.53
2:C:230:ALA:O	2:C:231:SER:C	2.47	0.53
2:E:106:GLY:HA2	2:E:109:LYS:CE	2.39	0.53
2:E:26:PHE:O	2:E:30:LEU:N	2.36	0.53
2:E:26:PHE:CZ	2:E:30:LEU:HD22	2.44	0.53
2:E:359:LEU:O	2:E:361:THR:N	2.42	0.53
2:E:47:LEU:O	2:E:48:THR:C	2.46	0.53
2:E:66:ARG:CB	2:E:66:ARG:HH11	2.14	0.53
2:E:71:ILE:C	2:E:73:ILE:N	2.60	0.53
2:G:334:ALA:O	2:G:335:GLN:C	2.47	0.53
2:A:129:LEU:C	2:A:154:VAL:HG13	2.29	0.53
2:A:149:GLN:OE1	2:A:150:ILE:HG22	2.09	0.53
2:A:216:LEU:CD2	2:A:217:VAL:N	2.71	0.53
2:A:5:ILE:HG13	2:A:30:LEU:HA	1.90	0.53
2:C:135:TYR:CZ	2:C:188:GLY:HA2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:153:GLN:HG2	2:C:154:VAL:H	1.73	0.53
2:E:145:GLN:O	2:E:146:LEU:C	2.47	0.53
2:E:233:PHE:O	2:E:234:HIS:C	2.44	0.53
2:E:23:VAL:O	2:E:26:PHE:HB3	2.09	0.53
2:E:259:ALA:O	2:E:260:VAL:C	2.47	0.53
2:E:361:THR:HB	2:E:362:PRO:HD2	1.91	0.53
2:G:100:MET:HB3	2:G:214:VAL:HG22	1.90	0.53
2:G:219:ASP:C	2:G:221:SER:N	2.63	0.53
2:G:224:GLN:O	2:G:227:TYR:HB2	2.08	0.53
2:G:361:THR:HB	2:G:362:PRO:HD2	1.91	0.53
2:G:399:ARG:HH11	2:G:399:ARG:CG	2.21	0.53
2:G:421:TYR:N	2:G:421:TYR:CD1	2.74	0.53
2:G:47:LEU:O	2:G:48:THR:C	2.46	0.53
2:A:108:GLY:CA	2:A:112:THR:HG23	2.39	0.53
2:A:143:LEU:O	2:A:146:LEU:CG	2.57	0.53
2:A:144:LEU:CD2	2:A:145:GLN:N	2.69	0.53
2:A:260:VAL:O	2:A:261:VAL:C	2.46	0.53
2:A:304:VAL:HG12	2:A:308:GLU:HB2	1.89	0.53
2:A:377:TRP:CE3	2:A:377:TRP:HA	2.43	0.53
2:C:111:THR:O	2:C:113:ALA:N	2.41	0.53
2:C:295:GLY:HA3	2:C:298:GLU:OE2	2.08	0.53
2:C:371:GLU:HG3	2:C:372:GLU:HG3	1.90	0.53
2:C:417:LEU:CD1	2:C:418:LEU:HD23	2.39	0.53
2:E:216:LEU:CD2	2:E:217:VAL:N	2.71	0.53
2:E:291:ILE:HD13	2:E:291:ILE:N	2.21	0.53
2:E:374:ILE:C	2:E:376:ARG:N	2.59	0.53
2:E:377:TRP:CE3	2:E:377:TRP:HA	2.43	0.53
2:E:417:LEU:CD1	2:E:418:LEU:HD23	2.39	0.53
2:G:219:ASP:C	2:G:221:SER:H	2.12	0.53
2:G:226:ALA:O	2:G:229:LEU:HB3	2.09	0.53
2:G:23:VAL:O	2:G:26:PHE:HB3	2.08	0.53
2:G:257:LEU:O	2:G:260:VAL:HB	2.09	0.53
2:G:396:ASP:OD1	2:G:399:ARG:HG3	2.08	0.53
2:G:399:ARG:HA	2:G:402:ARG:HH12	1.73	0.53
2:G:414:VAL:O	2:G:417:LEU:CD1	2.56	0.53
2:A:257:LEU:O	2:A:260:VAL:HB	2.09	0.52
2:A:340:ARG:CZ	2:A:345:LEU:HB2	2.38	0.52
2:C:5:ILE:HG13	2:C:30:LEU:HA	1.90	0.52
2:C:430:MET:CE	2:C:430:MET:HA	2.30	0.52
2:C:75:TYR:C	2:C:75:TYR:CD2	2.79	0.52
2:C:74:VAL:O	2:C:78:LEU:HG	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:132:ALA:CB	2:E:185:ASP:O	2.51	0.52
2:E:100:MET:HB3	2:E:214:VAL:HG22	1.90	0.52
2:E:267:ILE:CD1	2:E:267:ILE:N	2.71	0.52
2:E:283:ASN:O	2:E:285:LYS:N	2.43	0.52
2:E:414:VAL:O	2:E:417:LEU:CD1	2.56	0.52
2:G:283:ASN:O	2:G:285:LYS:N	2.42	0.52
2:G:315:LYS:HB3	2:G:315:LYS:HZ3	1.74	0.52
2:A:219:ASP:C	2:A:221:SER:H	2.12	0.52
2:A:2:LEU:CD2	2:A:3:GLU:H	2.23	0.52
2:A:26:PHE:CZ	2:A:30:LEU:HD22	2.44	0.52
2:A:335:GLN:O	2:A:336:ILE:C	2.48	0.52
2:A:358:MET:O	2:A:359:LEU:HD23	2.08	0.52
2:A:395:ILE:CD1	2:A:395:ILE:H	2.17	0.52
2:A:384:MET:CG	2:A:403:ILE:HD13	2.34	0.52
2:A:98:ILE:CD1	2:A:211:PRO:HA	2.38	0.52
2:C:98:ILE:HD13	2:C:209:LEU:HD21	1.91	0.52
2:C:276:ILE:O	2:C:276:ILE:CG1	2.58	0.52
2:C:300:ILE:CA	2:C:342:MET:HA	2.39	0.52
2:C:303:LYS:HB2	2:C:342:MET:HB2	1.91	0.52
2:C:377:TRP:CZ2	2:C:417:LEU:HB3	2.44	0.52
2:C:399:ARG:HA	2:C:402:ARG:HH12	1.73	0.52
2:E:135:TYR:CZ	2:E:188:GLY:HA2	2.43	0.52
2:E:250:THR:CG2	2:E:252:LYS:HD3	2.33	0.52
2:E:24:ASP:O	2:E:25:GLU:C	2.47	0.52
2:E:295:GLY:HA3	2:E:298:GLU:OE2	2.08	0.52
2:E:334:ALA:O	2:E:335:GLN:C	2.47	0.52
2:E:377:TRP:CZ2	2:E:417:LEU:HB3	2.44	0.52
1:F:196:A:N6	1:F:211:C:N3	2.57	0.52
2:G:145:GLN:O	2:G:146:LEU:C	2.47	0.52
2:G:307:LEU:O	2:G:310:TYR:N	2.42	0.52
2:G:377:TRP:CZ2	2:G:417:LEU:HB3	2.44	0.52
2:G:49:ALA:O	2:G:50:LYS:C	2.47	0.52
2:G:75:TYR:CD2	2:G:75:TYR:C	2.79	0.52
2:A:329:LEU:CB	2:A:392:PRO:HG2	2.38	0.52
2:A:49:ALA:O	2:A:50:LYS:C	2.47	0.52
1:B:197:G:H2'	1:B:198:G:O4'	2.09	0.52
2:C:116:LEU:O	2:C:119:PHE:HB3	2.09	0.52
2:C:417:LEU:CD1	2:C:421:TYR:CE2	2.91	0.52
2:C:66:ARG:CB	2:C:66:ARG:HH11	2.14	0.52
2:E:108:GLY:CA	2:E:112:THR:HG23	2.39	0.52
2:E:288:VAL:O	2:E:291:ILE:HG12	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2:LEU:CD2	2:E:3:GLU:H	2.23	0.52
2:E:359:LEU:C	2:E:361:THR:HG23	2.30	0.52
2:G:276:ILE:O	2:G:276:ILE:CG1	2.58	0.52
2:G:115:LYS:HD3	2:G:279:LEU:H	1.73	0.52
2:G:9:VAL:HG21	2:G:292:LEU:HA	1.90	0.52
2:G:303:LYS:HB2	2:G:342:MET:HB2	1.91	0.52
2:A:307:LEU:O	2:A:310:TYR:N	2.42	0.52
2:A:421:TYR:CD1	2:A:421:TYR:N	2.74	0.52
2:C:110:THR:HG23	2:C:111:THR:H	1.74	0.52
2:C:132:ALA:CB	2:C:185:ASP:O	2.51	0.52
2:C:283:ASN:O	2:C:285:LYS:N	2.42	0.52
2:C:26:PHE:CZ	2:C:30:LEU:HD22	2.44	0.52
2:C:330:ARG:C	2:C:332:VAL:N	2.60	0.52
1:D:199:C:H6	1:D:199:C:O5'	1.92	0.52
2:E:226:ALA:O	2:E:229:LEU:HB3	2.09	0.52
2:E:335:GLN:O	2:E:336:ILE:C	2.48	0.52
1:F:197:G:H2'	1:F:198:G:O4'	2.09	0.52
2:G:149:GLN:OE1	2:G:150:ILE:HG22	2.09	0.52
2:G:426:ARG:HB3	2:G:427:LEU:HD13	1.92	0.52
2:A:300:ILE:C	2:A:300:ILE:HD12	2.29	0.52
2:A:334:ALA:O	2:A:335:GLN:C	2.47	0.52
2:A:399:ARG:HA	2:A:402:ARG:HH12	1.73	0.52
2:A:424:MET:HG3	2:A:425:ASN:N	2.24	0.52
2:A:426:ARG:HB3	2:A:427:LEU:HD13	1.92	0.52
2:A:91:ASN:HB3	2:A:92:PRO:CD	2.35	0.52
2:A:9:VAL:HG21	2:A:292:LEU:HA	1.91	0.52
1:B:192:G:N3	1:B:192:G:H2'	2.24	0.52
2:C:226:ALA:O	2:C:229:LEU:HB3	2.09	0.52
2:C:287:PHE:HD1	2:C:290:ARG:NE	2.08	0.52
2:C:297:ILE:CG1	2:C:298:GLU:N	2.72	0.52
2:C:396:ASP:OD1	2:C:399:ARG:HG3	2.08	0.52
2:E:143:LEU:O	2:E:146:LEU:CG	2.57	0.52
2:E:417:LEU:CD1	2:E:421:TYR:CE2	2.91	0.52
2:G:108:GLY:CA	2:G:112:THR:HG23	2.39	0.52
2:G:291:ILE:N	2:G:291:ILE:HD13	2.21	0.52
2:G:396:ASP:OD2	2:G:396:ASP:N	2.42	0.52
2:G:71:ILE:HA	2:G:74:VAL:CG1	2.40	0.52
1:H:212:A:C2'	1:H:213:A:O5'	2.57	0.52
2:A:181:ILE:C	2:A:182:ILE:HD12	2.30	0.52
2:A:297:ILE:CG1	2:A:298:GLU:N	2.72	0.52
2:C:144:LEU:CD1	2:E:177:ASN:ND2	2.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:181:ILE:C	2:C:182:ILE:HD12	2.30	0.52
2:C:183:ILE:N	2:C:183:ILE:CD1	2.69	0.52
2:C:250:THR:CG2	2:C:252:LYS:HD3	2.33	0.52
2:C:276:ILE:O	2:C:276:ILE:HG13	2.09	0.52
1:D:197:G:H2'	1:D:198:G:O4'	2.09	0.52
2:E:30:LEU:O	2:E:34:LEU:CD2	2.58	0.52
2:G:106:GLY:O	2:G:107:SER:CB	2.57	0.52
2:G:21:LYS:O	2:G:22:ALA:C	2.48	0.52
2:G:287:PHE:HD1	2:G:290:ARG:NE	2.08	0.52
2:G:285:LYS:O	2:G:287:PHE:N	2.43	0.52
2:G:315:LYS:HB3	2:G:315:LYS:HZ2	1.75	0.52
1:H:184:G:H2'	1:H:185:G:C1'	2.38	0.52
2:A:107:SER:C	2:A:109:LYS:N	2.56	0.52
2:A:98:ILE:HD13	2:A:209:LEU:HD21	1.91	0.52
2:A:316:LYS:HB3	2:A:316:LYS:HZ2	1.74	0.52
2:A:333:TYR:HD1	2:A:381:LEU:HD12	1.75	0.52
2:A:389:LEU:N	2:A:389:LEU:CD2	2.70	0.52
2:C:288:VAL:O	2:C:291:ILE:HG12	2.09	0.52
2:C:2:LEU:CD2	2:C:3:GLU:H	2.22	0.52
1:D:183:G:C6	1:D:184:G:O6	2.63	0.52
2:E:104:VAL:HG23	2:E:105:GLN:O	2.10	0.52
2:E:106:GLY:O	2:E:107:SER:CB	2.57	0.52
2:E:216:LEU:C	2:E:216:LEU:HD23	2.28	0.52
2:E:281:THR:CG2	2:E:282:PHE:H	2.18	0.52
2:G:116:LEU:O	2:G:119:PHE:HB3	2.09	0.52
2:G:335:GLN:O	2:G:336:ILE:C	2.48	0.52
2:G:72:SER:O	2:G:76:ASP:N	2.37	0.52
1:H:197:G:H2'	1:H:198:G:O4'	2.09	0.52
2:A:104:VAL:HG23	2:A:105:GLN:O	2.10	0.52
2:A:219:ASP:C	2:A:221:SER:N	2.63	0.52
2:A:259:ALA:O	2:A:260:VAL:C	2.47	0.52
2:A:287:PHE:HD1	2:A:290:ARG:NE	2.08	0.52
2:A:396:ASP:OD1	2:A:399:ARG:HG3	2.08	0.52
1:B:199:C:O5'	1:B:199:C:H6	1.93	0.52
2:C:247:MET:C	2:C:249:GLY:H	2.12	0.52
2:C:257:LEU:HD12	2:C:258:SER:H	1.67	0.52
2:C:285:LYS:O	2:C:287:PHE:N	2.43	0.52
2:C:63:VAL:HG22	2:C:351:HIS:CB	2.38	0.52
2:E:230:ALA:O	2:E:231:SER:C	2.47	0.52
2:E:285:LYS:O	2:E:287:PHE:N	2.43	0.52
2:E:300:ILE:C	2:E:300:ILE:HD12	2.29	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:354:GLY:CA	2:E:368:LYS:HG3	2.39	0.52
2:E:421:TYR:CD1	2:E:421:TYR:N	2.75	0.52
2:G:153:GLN:HG2	2:G:154:VAL:H	1.73	0.52
2:G:396:ASP:OD2	2:G:399:ARG:CB	2.58	0.52
1:H:183:G:C6	1:H:184:G:O6	2.63	0.52
2:A:106:GLY:O	2:A:107:SER:CB	2.57	0.52
2:A:238:PRO:C	2:A:240:GLY:N	2.63	0.52
2:A:283:ASN:O	2:A:285:LYS:N	2.42	0.52
2:A:359:LEU:O	2:A:361:THR:N	2.42	0.52
2:A:71:ILE:HA	2:A:74:VAL:CG1	2.40	0.52
1:B:196:A:N6	1:B:211:C:N3	2.57	0.52
2:C:106:GLY:O	2:C:107:SER:CB	2.57	0.52
2:C:172:ASP:O	2:C:176:LYS:N	2.31	0.52
2:C:104:VAL:HA	2:C:198:LEU:HD21	1.92	0.52
2:C:24:ASP:HA	2:C:27:ILE:HG12	1.92	0.52
2:C:71:ILE:C	2:C:73:ILE:N	2.60	0.52
2:E:219:ASP:C	2:E:221:SER:N	2.63	0.52
2:E:247:MET:C	2:E:249:GLY:H	2.12	0.52
2:E:260:VAL:O	2:E:261:VAL:C	2.46	0.52
2:E:276:ILE:O	2:E:276:ILE:CG1	2.58	0.52
2:E:304:VAL:HG12	2:E:308:GLU:HB2	1.92	0.52
2:E:350:GLN:CD	2:E:350:GLN:H	2.12	0.52
2:E:74:VAL:O	2:E:75:TYR:C	2.49	0.52
1:F:183:G:C6	1:F:184:G:O6	2.63	0.52
2:G:300:ILE:HG13	2:G:301:LEU:N	2.25	0.52
2:G:91:ASN:HB3	2:G:92:PRO:CD	2.35	0.52
2:G:98:ILE:HD13	2:G:209:LEU:HD21	1.91	0.52
2:A:100:MET:HB3	2:A:214:VAL:HG22	1.90	0.52
2:A:24:ASP:HA	2:A:27:ILE:HG12	1.92	0.52
2:A:300:ILE:CA	2:A:342:MET:HA	2.39	0.52
2:A:40:ASN:HB3	2:A:43:LEU:HD21	1.92	0.52
1:B:183:G:C6	1:B:184:G:O6	2.63	0.52
2:C:424:MET:HG3	2:C:425:ASN:N	2.24	0.52
2:E:243:ILE:CD1	2:E:269:PHE:N	2.55	0.52
2:E:287:PHE:HD1	2:E:290:ARG:NE	2.08	0.52
2:E:297:ILE:CG1	2:E:298:GLU:N	2.72	0.52
2:E:307:LEU:O	2:E:310:TYR:N	2.42	0.52
2:E:424:MET:HG3	2:E:425:ASN:N	2.24	0.52
2:E:98:ILE:HD13	2:E:209:LEU:HD21	1.91	0.52
2:G:104:VAL:HG23	2:G:105:GLN:O	2.10	0.52
2:G:230:ALA:O	2:G:231:SER:C	2.47	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2:LEU:CD2	2:G:3:GLU:H	2.23	0.52
2:G:300:ILE:CA	2:G:342:MET:HA	2.39	0.52
2:G:63:VAL:HG22	2:G:351:HIS:CB	2.38	0.52
2:A:21:LYS:O	2:A:22:ALA:C	2.48	0.51
2:A:226:ALA:O	2:A:229:LEU:HB3	2.09	0.51
2:A:276:ILE:CG1	2:A:276:ILE:O	2.58	0.51
2:A:285:LYS:O	2:A:287:PHE:N	2.43	0.51
2:A:300:ILE:HG13	2:A:301:LEU:N	2.25	0.51
2:A:361:THR:HB	2:A:362:PRO:HD2	1.91	0.51
2:A:396:ASP:OD2	2:A:396:ASP:N	2.42	0.51
2:A:396:ASP:OD2	2:A:399:ARG:CB	2.58	0.51
2:C:149:GLN:OE1	2:C:150:ILE:HG22	2.09	0.51
2:C:359:LEU:C	2:C:361:THR:HG23	2.30	0.51
2:C:71:ILE:HA	2:C:74:VAL:CG1	2.40	0.51
2:C:74:VAL:O	2:C:75:TYR:C	2.49	0.51
1:D:192:G:N3	1:D:192:G:H2'	2.24	0.51
2:E:219:ASP:C	2:E:221:SER:H	2.12	0.51
2:E:250:THR:O	2:E:251:ALA:CB	2.58	0.51
2:E:396:ASP:OD2	2:E:399:ARG:CB	2.58	0.51
2:E:49:ALA:O	2:E:50:LYS:C	2.47	0.51
2:G:301:LEU:HD23	2:G:301:LEU:C	2.31	0.51
2:G:384:MET:CG	2:G:403:ILE:HD13	2.34	0.51
2:G:40:ASN:HB3	2:G:43:LEU:HD21	1.92	0.51
2:G:417:LEU:HD12	2:G:418:LEU:CD2	2.40	0.51
2:A:145:GLN:O	2:A:146:LEU:C	2.47	0.51
2:A:24:ASP:O	2:A:25:GLU:C	2.47	0.51
2:A:359:LEU:C	2:A:361:THR:HG23	2.30	0.51
2:A:417:LEU:HD12	2:A:418:LEU:CD2	2.40	0.51
2:C:307:LEU:O	2:C:310:TYR:N	2.42	0.51
2:C:389:LEU:H	2:C:389:LEU:CD2	2.06	0.51
2:C:396:ASP:O	2:C:397:LYS:C	2.49	0.51
2:E:149:GLN:OE1	2:E:150:ILE:HG22	2.09	0.51
2:E:104:VAL:HA	2:E:198:LEU:HD21	1.92	0.51
2:E:296:ASP:O	2:E:297:ILE:C	2.48	0.51
1:F:192:G:N3	1:F:192:G:H2'	2.24	0.51
2:G:74:VAL:O	2:G:75:TYR:C	2.49	0.51
2:G:99:ILE:CG2	2:G:99:ILE:O	2.58	0.51
1:H:199:C:H6	1:H:199:C:O5'	1.92	0.51
2:A:146:LEU:H	2:A:146:LEU:CD2	2.06	0.51
2:A:153:GLN:HG2	2:A:154:VAL:H	1.73	0.51
2:C:335:GLN:O	2:C:336:ILE:C	2.48	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:426:ARG:HB3	2:C:427:LEU:HD13	1.92	0.51
2:C:75:TYR:HA	2:C:78:LEU:HD12	1.90	0.51
2:C:99:ILE:O	2:C:99:ILE:CG2	2.58	0.51
2:E:207:ASP:O	2:E:208:VAL:CG1	2.57	0.51
2:E:371:GLU:HG3	2:E:372:GLU:HG3	1.90	0.51
1:F:188:A:C5	2:E:399:ARG:HG2	2.46	0.51
2:G:104:VAL:HA	2:G:198:LEU:HD21	1.92	0.51
2:G:250:THR:O	2:G:251:ALA:CB	2.58	0.51
2:G:39:VAL:HA	2:G:255:GLY:CA	2.41	0.51
2:G:26:PHE:CZ	2:G:30:LEU:HD22	2.44	0.51
1:H:188:A:C5	2:G:399:ARG:HG2	2.46	0.51
2:G:40:ASN:CB	2:G:43:LEU:HD21	2.41	0.51
2:A:110:THR:HG23	2:A:111:THR:H	1.74	0.51
2:A:39:VAL:HA	2:A:255:GLY:CA	2.41	0.51
2:A:301:LEU:C	2:A:301:LEU:HD23	2.31	0.51
1:B:188:A:C5	2:A:399:ARG:HG2	2.46	0.51
2:A:40:ASN:CB	2:A:43:LEU:HD21	2.40	0.51
2:C:118:TYR:CD2	2:C:119:PHE:N	2.79	0.51
2:C:98:ILE:CG2	2:C:209:LEU:HD11	2.41	0.51
2:C:24:ASP:O	2:C:25:GLU:C	2.47	0.51
2:C:250:THR:O	2:C:251:ALA:CB	2.58	0.51
2:C:300:ILE:C	2:C:300:ILE:HD12	2.29	0.51
2:C:334:ALA:O	2:C:335:GLN:C	2.47	0.51
2:E:199:LEU:HD23	2:E:199:LEU:H	1.76	0.51
2:E:203:LYS:O	2:E:204:GLU:C	2.49	0.51
2:E:21:LYS:O	2:E:22:ALA:C	2.48	0.51
2:E:216:LEU:N	2:E:242:VAL:HG12	2.19	0.51
2:E:27:ILE:O	2:E:31:GLN:N	2.31	0.51
2:E:40:ASN:CB	2:E:43:LEU:HD21	2.41	0.51
2:E:71:ILE:HA	2:E:74:VAL:CG1	2.40	0.51
1:F:210:G:O2'	1:F:211:C:O5'	2.27	0.51
2:G:146:LEU:CD2	2:G:146:LEU:H	2.06	0.51
2:G:259:ALA:O	2:G:260:VAL:C	2.46	0.51
2:G:396:ASP:O	2:G:397:LYS:C	2.49	0.51
1:H:192:G:H2'	1:H:192:G:N3	2.24	0.51
2:A:199:LEU:H	2:A:199:LEU:HD23	1.76	0.51
2:A:98:ILE:CG2	2:A:209:LEU:HD11	2.41	0.51
2:A:296:ASP:O	2:A:297:ILE:C	2.48	0.51
2:A:355:LEU:O	2:A:356:GLY:O	2.29	0.51
2:C:21:LYS:O	2:C:22:ALA:C	2.48	0.51
2:C:49:ALA:O	2:C:50:LYS:C	2.47	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:301:LEU:C	2:E:301:LEU:HD23	2.31	0.51
2:E:39:VAL:HA	2:E:255:GLY:CA	2.41	0.51
2:E:402:ARG:HH21	2:E:403:ILE:HD11	1.75	0.51
2:G:171:VAL:O	2:G:174:PHE:HD2	1.93	0.51
2:G:30:LEU:O	2:G:34:LEU:CD2	2.58	0.51
2:G:333:TYR:HD1	2:G:381:LEU:HD12	1.75	0.51
2:A:26:PHE:O	2:A:30:LEU:N	2.36	0.51
2:A:327:LEU:CB	2:A:330:ARG:HD3	2.41	0.51
2:A:402:ARG:HH21	2:A:403:ILE:HD11	1.75	0.51
2:C:114:GLY:O	2:C:118:TYR:N	2.44	0.51
2:C:219:ASP:C	2:C:221:SER:N	2.63	0.51
2:C:291:ILE:HD13	2:C:291:ILE:N	2.20	0.51
2:C:30:LEU:O	2:C:34:LEU:CD2	2.58	0.51
2:E:118:TYR:CD2	2:E:119:PHE:N	2.79	0.51
2:E:181:ILE:C	2:E:182:ILE:HD12	2.30	0.51
2:E:98:ILE:CG2	2:E:209:LEU:HD11	2.41	0.51
2:E:289:SER:CA	2:E:292:LEU:HD12	2.40	0.51
2:E:327:LEU:CB	2:E:330:ARG:HD3	2.41	0.51
2:E:40:ASN:HB3	2:E:43:LEU:HD21	1.92	0.51
2:E:44:VAL:O	2:E:45:PHE:C	2.49	0.51
2:E:61:PRO:C	2:E:62:SER:O	2.49	0.51
1:F:199:C:H6	1:F:199:C:O5'	1.93	0.51
2:G:247:MET:C	2:G:249:GLY:H	2.12	0.51
2:G:417:LEU:CD1	2:G:421:TYR:CE2	2.91	0.51
2:A:104:VAL:HA	2:A:198:LEU:HD21	1.92	0.51
2:A:30:LEU:O	2:A:34:LEU:CD2	2.58	0.51
2:C:171:VAL:O	2:C:174:PHE:HD2	1.93	0.51
2:C:40:ASN:CB	2:C:43:LEU:HD21	2.40	0.51
1:D:196:A:N6	1:D:211:C:N3	2.57	0.51
2:E:114:GLY:O	2:E:118:TYR:N	2.44	0.51
2:E:116:LEU:O	2:E:119:PHE:HB3	2.10	0.51
2:E:222:ILE:CD1	2:E:226:ALA:HA	2.41	0.51
2:E:276:ILE:O	2:E:276:ILE:HG13	2.09	0.51
2:E:300:ILE:HG13	2:E:301:LEU:N	2.25	0.51
2:E:426:ARG:HB3	2:E:427:LEU:HD13	1.92	0.51
2:E:86:LYS:HZ1	2:E:89:ASN:ND2	2.07	0.51
2:G:98:ILE:CG2	2:G:209:LEU:HD11	2.41	0.51
2:G:24:ASP:O	2:G:25:GLU:C	2.47	0.51
2:G:327:LEU:CB	2:G:330:ARG:HD3	2.41	0.51
2:G:350:GLN:CD	2:G:350:GLN:H	2.12	0.51
2:G:402:ARG:HH21	2:G:403:ILE:HD11	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:115:LYS:HA	2:A:118:TYR:CB	2.40	0.51
2:A:118:TYR:CD2	2:A:119:PHE:N	2.79	0.51
2:A:207:ASP:O	2:A:208:VAL:CG1	2.57	0.51
2:A:230:ALA:O	2:A:231:SER:C	2.47	0.51
2:A:71:ILE:C	2:A:73:ILE:N	2.60	0.51
2:A:74:VAL:O	2:A:75:TYR:C	2.49	0.51
2:A:82:PHE:O	2:A:261:VAL:HG11	2.11	0.51
2:C:216:LEU:CD2	2:C:217:VAL:N	2.71	0.51
2:C:39:VAL:HA	2:C:255:GLY:CA	2.41	0.51
2:C:300:ILE:HG13	2:C:301:LEU:N	2.25	0.51
2:C:410:GLU:O	2:C:411:VAL:C	2.50	0.51
2:C:40:ASN:HB3	2:C:43:LEU:HD21	1.92	0.51
2:E:300:ILE:CA	2:E:342:MET:HA	2.39	0.51
2:E:410:GLU:O	2:E:411:VAL:C	2.49	0.51
2:E:419:GLU:O	2:E:421:TYR:N	2.44	0.51
2:G:157:GLU:HB3	2:G:160:ASN:OD1	2.11	0.51
2:G:289:SER:CA	2:G:292:LEU:HD12	2.40	0.51
2:A:222:ILE:CD1	2:A:226:ALA:HA	2.41	0.51
2:C:222:ILE:CD1	2:C:226:ALA:HA	2.41	0.51
2:E:333:TYR:HD1	2:E:381:LEU:HD12	1.75	0.51
2:E:396:ASP:O	2:E:397:LYS:C	2.49	0.51
2:E:54:ARG:O	2:E:55:LEU:C	2.49	0.51
2:G:112:THR:O	2:G:114:GLY:N	2.44	0.51
2:G:118:TYR:CD2	2:G:119:PHE:N	2.79	0.51
2:G:23:VAL:C	2:G:27:ILE:HG12	2.32	0.51
2:G:355:LEU:O	2:G:356:GLY:O	2.29	0.51
2:G:419:GLU:O	2:G:421:TYR:N	2.44	0.51
2:G:44:VAL:O	2:G:45:PHE:C	2.49	0.51
2:A:209:LEU:O	2:A:210:LYS:HG2	2.11	0.51
2:A:313:ILE:O	2:A:314:GLN:C	2.50	0.51
2:A:419:GLU:O	2:A:421:TYR:N	2.44	0.51
2:C:112:THR:O	2:C:114:GLY:N	2.44	0.51
2:C:209:LEU:O	2:C:210:LYS:HG2	2.11	0.51
2:C:288:VAL:O	2:C:289:SER:C	2.50	0.51
2:C:289:SER:CA	2:C:292:LEU:HD12	2.40	0.51
2:C:419:GLU:O	2:C:421:TYR:N	2.44	0.51
2:C:61:PRO:C	2:C:62:SER:O	2.49	0.51
1:D:210:G:N2	1:D:211:C:H41	2.09	0.51
2:E:127:VAL:CG2	2:E:152:VAL:HG13	2.41	0.51
2:E:209:LEU:O	2:E:210:LYS:HG2	2.11	0.51
2:E:279:LEU:CD1	2:E:280:GLU:N	2.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:297:ILE:O	2:E:301:LEU:N	2.22	0.51
1:F:210:G:N2	1:F:211:C:H41	2.09	0.51
2:G:181:ILE:C	2:G:182:ILE:HD12	2.30	0.51
2:G:238:PRO:C	2:G:240:GLY:N	2.63	0.51
2:G:313:ILE:O	2:G:314:GLN:C	2.50	0.51
2:G:376:ARG:HH11	2:G:409:LEU:HD22	1.75	0.51
2:A:250:THR:O	2:A:251:ALA:CB	2.58	0.50
2:A:410:GLU:O	2:A:411:VAL:C	2.49	0.50
2:A:47:LEU:O	2:A:49:ALA:N	2.44	0.50
2:C:23:VAL:C	2:C:27:ILE:HG12	2.32	0.50
2:C:396:ASP:OD2	2:C:399:ARG:CB	2.58	0.50
2:E:157:GLU:HB3	2:E:160:ASN:OD1	2.11	0.50
2:E:176:LYS:HD2	2:E:176:LYS:O	2.12	0.50
2:E:228:ASP:O	2:E:231:SER:HB2	2.12	0.50
2:E:238:PRO:C	2:E:240:GLY:N	2.63	0.50
2:E:313:ILE:O	2:E:314:GLN:C	2.50	0.50
2:E:355:LEU:O	2:E:356:GLY:O	2.29	0.50
2:E:376:ARG:HH11	2:E:409:LEU:HD22	1.75	0.50
2:G:359:LEU:C	2:G:361:THR:HG23	2.30	0.50
2:G:354:GLY:CA	2:G:368:LYS:HG3	2.39	0.50
2:G:333:TYR:CD1	2:G:381:LEU:HD12	2.47	0.50
2:G:47:LEU:O	2:G:49:ALA:N	2.44	0.50
2:G:86:LYS:HZ3	2:G:89:ASN:CG	2.13	0.50
2:A:157:GLU:HB3	2:A:160:ASN:OD1	2.11	0.50
2:A:176:LYS:O	2:A:176:LYS:HD2	2.12	0.50
2:A:247:MET:C	2:A:249:GLY:H	2.12	0.50
2:C:143:LEU:O	2:C:146:LEU:CG	2.57	0.50
2:C:203:LYS:O	2:C:204:GLU:C	2.49	0.50
2:C:296:ASP:O	2:C:297:ILE:C	2.48	0.50
2:C:301:LEU:HD23	2:C:301:LEU:C	2.31	0.50
2:C:327:LEU:CB	2:C:330:ARG:HD3	2.41	0.50
2:C:365:ASP:OD1	2:C:366:GLN:HB2	2.11	0.50
2:E:205:MET:O	2:E:208:VAL:HG22	2.12	0.50
2:E:23:VAL:C	2:E:27:ILE:HG12	2.32	0.50
2:E:24:ASP:HA	2:E:27:ILE:HG12	1.92	0.50
2:E:47:LEU:O	2:E:49:ALA:N	2.44	0.50
2:E:75:TYR:HA	2:E:78:LEU:HG	1.94	0.50
2:G:160:ASN:ND2	2:G:160:ASN:C	2.65	0.50
2:G:176:LYS:O	2:G:176:LYS:HD2	2.12	0.50
2:G:71:ILE:N	2:G:71:ILE:HD13	2.26	0.50
2:G:82:PHE:O	2:G:261:VAL:HG11	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:104:VAL:CG2	2:A:105:GLN:N	2.60	0.50
2:A:116:LEU:O	2:A:119:PHE:HB3	2.09	0.50
2:A:233:PHE:C	2:A:235:GLN:H	2.15	0.50
2:A:315:LYS:HZ2	2:A:315:LYS:HB3	1.73	0.50
2:A:354:GLY:CA	2:A:368:LYS:HG3	2.39	0.50
2:A:381:LEU:C	2:A:383:SER:N	2.65	0.50
2:A:333:TYR:CD1	2:A:381:LEU:HD12	2.47	0.50
2:A:49:ALA:O	2:A:51:ILE:N	2.45	0.50
2:C:157:GLU:HB3	2:C:160:ASN:OD1	2.11	0.50
2:C:163:PRO:HG2	2:C:164:ILE:HG13	1.93	0.50
2:C:402:ARG:HH21	2:C:403:ILE:HD11	1.75	0.50
1:D:195:C:O2	1:D:195:C:C2'	2.52	0.50
2:E:111:THR:HG1	2:E:112:THR:N	2.07	0.50
2:E:269:PHE:CD1	2:E:281:THR:HA	2.44	0.50
2:E:297:ILE:C	2:E:299:SER:N	2.64	0.50
1:F:198:G:N2	1:F:199:C:O4'	2.45	0.50
2:G:203:LYS:O	2:G:204:GLU:C	2.49	0.50
2:G:296:ASP:O	2:G:297:ILE:C	2.49	0.50
2:G:428:LEU:HD13	2:G:428:LEU:C	2.32	0.50
2:G:61:PRO:C	2:G:62:SER:O	2.49	0.50
1:H:184:G:C6	1:H:185:G:C6	3.00	0.50
2:A:205:MET:O	2:A:208:VAL:HG22	2.12	0.50
2:A:289:SER:CA	2:A:292:LEU:HD12	2.40	0.50
2:A:401:ARG:O	2:A:405:GLU:HG2	2.12	0.50
2:A:425:ASN:H	2:A:425:ASN:ND2	2.04	0.50
2:A:63:VAL:HG22	2:A:351:HIS:CB	2.38	0.50
2:A:71:ILE:HD13	2:A:71:ILE:N	2.26	0.50
1:B:210:G:N2	1:B:211:C:H41	2.09	0.50
2:C:104:VAL:HG23	2:C:105:GLN:O	2.10	0.50
2:C:333:TYR:HD1	2:C:381:LEU:HD12	1.75	0.50
1:D:188:A:C5	2:C:399:ARG:HG2	2.46	0.50
2:C:44:VAL:O	2:C:45:PHE:C	2.49	0.50
2:E:110:THR:HG23	2:E:111:THR:H	1.74	0.50
2:E:112:THR:O	2:E:114:GLY:N	2.44	0.50
2:E:29:ASP:O	2:E:30:LEU:C	2.50	0.50
2:E:315:LYS:HB3	2:E:315:LYS:HZ2	1.76	0.50
2:E:333:TYR:CD1	2:E:381:LEU:HD12	2.47	0.50
2:E:428:LEU:HD13	2:E:428:LEU:C	2.32	0.50
2:E:63:VAL:HG22	2:E:351:HIS:CB	2.38	0.50
2:E:71:ILE:HD13	2:E:71:ILE:N	2.26	0.50
1:F:186:G:O2'	1:F:187:G:C8	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:158:PRO:O	2:G:159:ASN:C	2.50	0.50
2:G:209:LEU:O	2:G:210:LYS:HG2	2.11	0.50
2:G:233:PHE:C	2:G:235:GLN:H	2.15	0.50
2:G:376:ARG:NH2	2:G:376:ARG:HG3	2.20	0.50
1:H:196:A:N6	1:H:211:C:N3	2.57	0.50
2:A:10:ARG:C	2:A:12:PHE:H	2.15	0.50
2:A:148:ASN:C	2:A:150:ILE:N	2.65	0.50
2:A:160:ASN:ND2	2:A:160:ASN:C	2.65	0.50
2:A:23:VAL:C	2:A:27:ILE:HG12	2.32	0.50
2:A:95:LEU:N	2:A:95:LEU:HD12	2.27	0.50
1:B:184:G:C6	1:B:185:G:C6	3.00	0.50
2:C:20:GLU:O	2:C:23:VAL:CB	2.59	0.50
2:C:216:LEU:HD23	2:C:217:VAL:CA	2.42	0.50
2:C:91:ASN:HB3	2:C:92:PRO:CD	2.35	0.50
2:G:223:GLY:HA2	2:G:256:ALA:CA	2.42	0.50
2:G:49:ALA:O	2:G:51:ILE:N	2.45	0.50
2:G:75:TYR:HA	2:G:78:LEU:HG	1.94	0.50
2:A:101:LEU:O	2:A:186:THR:N	2.42	0.50
2:A:112:THR:O	2:A:114:GLY:N	2.44	0.50
2:A:158:PRO:O	2:A:159:ASN:C	2.50	0.50
2:A:428:LEU:HD13	2:A:428:LEU:C	2.32	0.50
2:A:59:LYS:HZ2	2:A:61:PRO:N	2.08	0.50
2:C:269:PHE:CD1	2:C:281:THR:HA	2.44	0.50
2:C:313:ILE:O	2:C:314:GLN:C	2.50	0.50
2:C:355:LEU:O	2:C:356:GLY:O	2.29	0.50
2:C:357:ILE:N	2:C:357:ILE:CD1	2.70	0.50
2:C:384:MET:CG	2:C:403:ILE:HD13	2.34	0.50
2:C:47:LEU:O	2:C:49:ALA:N	2.44	0.50
2:E:148:ASN:C	2:E:150:ILE:N	2.65	0.50
2:E:216:LEU:HD23	2:E:217:VAL:CA	2.42	0.50
2:E:219:ASP:HB2	2:E:245:THR:OG1	2.12	0.50
2:E:300:ILE:HB	2:E:343:GLY:N	2.27	0.50
2:G:110:THR:HG23	2:G:111:THR:H	1.74	0.50
2:G:114:GLY:O	2:G:118:TYR:N	2.44	0.50
2:G:199:LEU:HD23	2:G:199:LEU:H	1.76	0.50
2:G:205:MET:O	2:G:208:VAL:HG22	2.12	0.50
2:G:207:ASP:O	2:G:208:VAL:CG1	2.57	0.50
2:G:39:VAL:HG12	2:G:40:ASN:O	2.12	0.50
2:G:424:MET:O	2:G:428:LEU:N	2.36	0.50
2:A:114:GLY:O	2:A:118:TYR:N	2.44	0.50
2:A:127:VAL:CG2	2:A:152:VAL:HG13	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:203:LYS:O	2:A:204:GLU:C	2.49	0.50
2:A:348:VAL:O	2:A:349:LEU:C	2.50	0.50
2:A:424:MET:O	2:A:428:LEU:N	2.36	0.50
2:A:44:VAL:O	2:A:45:PHE:C	2.49	0.50
2:C:101:LEU:O	2:C:186:THR:N	2.42	0.50
2:C:168:LYS:O	2:C:169:LYS:C	2.50	0.50
2:C:176:LYS:O	2:C:176:LYS:HD2	2.12	0.50
2:C:390:GLU:N	2:C:390:GLU:CD	2.65	0.50
2:E:288:VAL:O	2:E:289:SER:C	2.50	0.50
2:E:354:GLY:C	2:E:355:LEU:HD23	2.32	0.50
2:E:430:MET:CE	2:E:430:MET:HA	2.30	0.50
2:G:140:TYR:O	2:G:141:ASP:O	2.30	0.50
2:G:216:LEU:CD2	2:G:217:VAL:N	2.71	0.50
2:G:222:ILE:CD1	2:G:226:ALA:HA	2.41	0.50
2:G:389:LEU:N	2:G:389:LEU:CD2	2.70	0.50
2:G:394:ILE:H	2:G:395:ILE:CD1	2.12	0.50
2:G:401:ARG:O	2:G:405:GLU:HG2	2.12	0.50
2:G:410:GLU:O	2:G:411:VAL:C	2.49	0.50
2:G:54:ARG:O	2:G:55:LEU:C	2.49	0.50
1:H:210:G:N2	1:H:211:C:H41	2.09	0.50
1:H:210:G:O2'	1:H:211:C:O5'	2.27	0.50
2:A:171:VAL:O	2:A:174:PHE:HD2	1.93	0.50
2:A:28:LYS:HA	2:A:31:GLN:CD	2.32	0.50
2:A:376:ARG:HH11	2:A:409:LEU:HD22	1.75	0.50
2:C:141:ASP:N	2:C:141:ASP:OD1	2.45	0.50
2:C:127:VAL:CG2	2:C:152:VAL:HG13	2.41	0.50
2:C:207:ASP:O	2:C:208:VAL:CG1	2.58	0.50
2:C:205:MET:O	2:C:208:VAL:HG22	2.12	0.50
2:C:219:ASP:HB2	2:C:245:THR:OG1	2.12	0.50
2:C:228:ASP:O	2:C:231:SER:HB2	2.12	0.50
2:E:10:ARG:C	2:E:12:PHE:H	2.15	0.50
2:E:141:ASP:N	2:E:141:ASP:OD1	2.45	0.50
2:E:140:TYR:O	2:E:141:ASP:O	2.30	0.50
2:E:163:PRO:HG2	2:E:164:ILE:HG13	1.93	0.50
2:E:308:GLU:C	2:E:309:GLU:HG3	2.31	0.50
2:E:333:TYR:O	2:E:337:ILE:CD1	2.60	0.50
2:G:127:VAL:CG2	2:G:152:VAL:HG13	2.41	0.50
2:G:202:MET:O	2:G:203:LYS:O	2.30	0.50
2:G:399:ARG:O	2:G:400:MET:CB	2.60	0.50
2:A:191:GLY:O	2:A:194:GLU:C	2.50	0.50
2:A:219:ASP:HB2	2:A:245:THR:OG1	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:187:G:H1	1:B:217:U:H3	1.60	0.50
2:C:115:LYS:HA	2:C:118:TYR:CB	2.40	0.50
2:C:140:TYR:O	2:C:141:ASP:O	2.30	0.50
2:C:75:TYR:HA	2:C:78:LEU:HG	1.94	0.50
2:E:39:VAL:HG12	2:E:40:ASN:O	2.12	0.50
1:F:184:G:C6	1:F:185:G:C6	3.00	0.50
2:G:219:ASP:HB2	2:G:245:THR:OG1	2.12	0.50
1:H:187:G:H1	1:H:217:U:H3	1.59	0.50
2:A:315:LYS:HB3	2:A:315:LYS:HZ3	1.76	0.49
2:A:390:GLU:CD	2:A:390:GLU:N	2.65	0.49
2:A:61:PRO:C	2:A:62:SER:O	2.49	0.49
2:A:75:TYR:HA	2:A:78:LEU:HG	1.94	0.49
2:C:160:ASN:ND2	2:C:160:ASN:C	2.65	0.49
2:C:199:LEU:HD23	2:C:199:LEU:H	1.76	0.49
2:C:202:MET:O	2:C:203:LYS:O	2.30	0.49
2:C:39:VAL:C	2:C:224:GLN:OE1	2.51	0.49
2:C:427:LEU:O	2:C:428:LEU:C	2.51	0.49
2:E:168:LYS:O	2:E:169:LYS:C	2.50	0.49
2:E:190:HIS:HB3	2:E:194:GLU:CB	2.42	0.49
2:E:390:GLU:CD	2:E:390:GLU:N	2.65	0.49
2:E:49:ALA:O	2:E:51:ILE:N	2.45	0.49
2:E:87:GLU:CA	2:E:87:GLU:OE2	2.56	0.49
2:G:100:MET:HE3	2:G:206:TYR:HA	1.93	0.49
2:G:10:ARG:C	2:G:12:PHE:H	2.15	0.49
2:G:288:VAL:O	2:G:289:SER:C	2.50	0.49
2:A:163:PRO:HG2	2:A:164:ILE:HG13	1.93	0.49
2:A:173:ILE:N	2:A:173:ILE:CD1	2.75	0.49
2:A:29:ASP:O	2:A:30:LEU:C	2.50	0.49
2:A:430:MET:HA	2:A:430:MET:CE	2.30	0.49
1:B:192:G:C2	1:B:193:G:N7	2.80	0.49
1:B:198:G:N2	1:B:199:C:O4'	2.45	0.49
2:C:191:GLY:O	2:C:194:GLU:C	2.50	0.49
2:C:354:GLY:C	2:C:355:LEU:HD23	2.32	0.49
2:C:354:GLY:CA	2:C:368:LYS:HG3	2.39	0.49
1:D:184:G:C6	1:D:185:G:C6	3.00	0.49
2:E:191:GLY:O	2:E:194:GLU:C	2.50	0.49
2:E:82:PHE:O	2:E:261:VAL:HG11	2.11	0.49
2:E:39:VAL:C	2:E:224:GLN:OE1	2.51	0.49
2:G:228:ASP:O	2:G:231:SER:HB2	2.12	0.49
2:G:231:SER:O	2:G:233:PHE:N	2.45	0.49
2:A:140:TYR:O	2:A:141:ASP:O	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:354:GLY:C	2:A:355:LEU:HD23	2.32	0.49
2:A:417:LEU:HD13	2:A:421:TYR:CZ	2.47	0.49
2:C:220:ALA:HB1	2:C:253:GLY:HA2	1.95	0.49
2:C:29:ASP:O	2:C:30:LEU:C	2.50	0.49
2:C:372:GLU:C	2:C:374:ILE:N	2.66	0.49
2:C:376:ARG:HH11	2:C:409:LEU:HD22	1.75	0.49
2:C:417:LEU:HD12	2:C:418:LEU:CD2	2.40	0.49
1:D:198:G:N2	1:D:199:C:O4'	2.45	0.49
2:E:160:ASN:ND2	2:E:160:ASN:C	2.65	0.49
2:E:348:VAL:O	2:E:349:LEU:C	2.50	0.49
2:E:399:ARG:O	2:E:400:MET:CB	2.60	0.49
2:E:426:ARG:HH11	2:E:426:ARG:HG2	1.77	0.49
2:G:104:VAL:CG2	2:G:105:GLN:N	2.60	0.49
2:G:115:LYS:HA	2:G:118:TYR:CB	2.40	0.49
2:G:216:LEU:HD23	2:G:217:VAL:CA	2.42	0.49
2:G:220:ALA:HB1	2:G:253:GLY:HA2	1.95	0.49
2:G:333:TYR:O	2:G:336:ILE:HG12	2.12	0.49
2:G:395:ILE:H	2:G:395:ILE:CD1	2.17	0.49
2:G:427:LEU:O	2:G:428:LEU:C	2.51	0.49
2:G:95:LEU:N	2:G:95:LEU:HD12	2.27	0.49
2:A:190:HIS:HB3	2:A:194:GLU:CB	2.42	0.49
2:A:328:THR:HG22	2:A:329:LEU:N	2.27	0.49
2:C:10:ARG:C	2:C:12:PHE:H	2.14	0.49
2:C:173:ILE:CD1	2:C:173:ILE:N	2.75	0.49
2:C:281:THR:HG22	2:C:282:PHE:N	2.23	0.49
2:C:333:TYR:O	2:C:337:ILE:CD1	2.60	0.49
2:C:333:TYR:CD1	2:C:381:LEU:HD12	2.47	0.49
2:C:39:VAL:HG12	2:C:40:ASN:O	2.12	0.49
2:C:424:MET:C	2:C:425:ASN:HD22	2.15	0.49
2:C:49:ALA:O	2:C:51:ILE:N	2.45	0.49
2:E:247:MET:C	2:E:249:GLY:N	2.66	0.49
2:E:346:SER:CA	2:E:350:GLN:HE21	2.25	0.49
2:E:417:LEU:HD12	2:E:418:LEU:CD2	2.40	0.49
2:E:427:LEU:O	2:E:428:LEU:C	2.51	0.49
2:G:101:LEU:O	2:G:186:THR:N	2.42	0.49
2:G:148:ASN:C	2:G:150:ILE:N	2.65	0.49
2:G:328:THR:HG22	2:G:329:LEU:N	2.27	0.49
2:G:333:TYR:O	2:G:336:ILE:HB	2.12	0.49
2:G:336:ILE:O	2:G:337:ILE:C	2.50	0.49
2:A:228:ASP:O	2:A:231:SER:HB2	2.12	0.49
2:A:233:PHE:C	2:A:233:PHE:CD1	2.86	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:253:GLY:O	2:C:256:ALA:N	2.45	0.49
2:C:300:ILE:HB	2:C:343:GLY:N	2.27	0.49
2:C:376:ARG:O	2:C:377:TRP:C	2.50	0.49
2:C:381:LEU:C	2:C:383:SER:N	2.65	0.49
2:C:83:GLY:O	2:C:84:GLY:C	2.51	0.49
2:E:216:LEU:HD21	2:E:218:ILE:HG23	1.94	0.49
2:E:223:GLY:HA2	2:E:256:ALA:CA	2.42	0.49
2:E:373:LYS:HA	2:E:376:ARG:CG	2.41	0.49
2:E:417:LEU:O	2:E:420:TRP:N	2.45	0.49
2:G:143:LEU:O	2:G:146:LEU:CG	2.57	0.49
2:G:190:HIS:HB3	2:G:194:GLU:CB	2.42	0.49
2:G:39:VAL:C	2:G:224:GLN:OE1	2.51	0.49
2:G:233:PHE:C	2:G:233:PHE:CD1	2.86	0.49
2:G:348:VAL:O	2:G:349:LEU:C	2.50	0.49
2:G:417:LEU:O	2:G:420:TRP:N	2.45	0.49
2:A:202:MET:O	2:A:203:LYS:O	2.30	0.49
2:A:333:TYR:O	2:A:336:ILE:HB	2.12	0.49
2:A:336:ILE:O	2:A:337:ILE:C	2.50	0.49
2:A:300:ILE:HB	2:A:343:GLY:N	2.27	0.49
2:A:39:VAL:C	2:A:224:GLN:OE1	2.51	0.49
2:A:39:VAL:HG12	2:A:40:ASN:O	2.12	0.49
2:A:417:LEU:O	2:A:420:TRP:N	2.45	0.49
2:A:426:ARG:HG2	2:A:426:ARG:HH11	1.77	0.49
2:C:158:PRO:O	2:C:159:ASN:C	2.50	0.49
2:C:357:ILE:O	2:C:358:MET:HB3	2.13	0.49
2:C:389:LEU:N	2:C:389:LEU:CD2	2.70	0.49
2:C:417:LEU:O	2:C:420:TRP:N	2.45	0.49
2:C:428:LEU:HD13	2:C:428:LEU:C	2.32	0.49
2:C:90:VAL:HG23	2:C:91:ASN:OD1	2.13	0.49
1:D:187:G:H1	1:D:217:U:H3	1.60	0.49
2:E:115:LYS:HA	2:E:118:TYR:CB	2.40	0.49
2:E:171:VAL:O	2:E:174:PHE:HD2	1.93	0.49
2:E:202:MET:O	2:E:203:LYS:O	2.30	0.49
2:E:102:VAL:HG22	2:E:215:ILE:O	2.13	0.49
2:E:220:ALA:HB1	2:E:253:GLY:HA2	1.95	0.49
2:E:28:LYS:HA	2:E:31:GLN:CD	2.32	0.49
2:E:90:VAL:HG23	2:E:91:ASN:OD1	2.13	0.49
2:G:327:LEU:HB3	2:G:330:ARG:HD3	1.95	0.49
2:G:357:ILE:O	2:G:358:MET:HB3	2.13	0.49
2:G:390:GLU:CD	2:G:390:GLU:N	2.65	0.49
2:A:126:LYS:N	2:A:126:LYS:HD2	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:127:VAL:HG21	2:A:152:VAL:HG13	1.95	0.49
2:A:346:SER:CA	2:A:350:GLN:HE21	2.25	0.49
2:C:190:HIS:HB3	2:C:194:GLU:CB	2.42	0.49
2:C:216:LEU:HD21	2:C:218:ILE:HG23	1.94	0.49
2:C:238:PRO:C	2:C:240:GLY:N	2.63	0.49
2:C:247:MET:C	2:C:249:GLY:N	2.66	0.49
2:C:279:LEU:CD1	2:C:280:GLU:N	2.74	0.49
2:C:28:LYS:HA	2:C:31:GLN:CD	2.32	0.49
2:C:333:TYR:O	2:C:336:ILE:HB	2.12	0.49
2:C:417:LEU:HD13	2:C:421:TYR:CZ	2.47	0.49
2:E:126:LYS:HD2	2:E:126:LYS:N	2.28	0.49
2:E:401:ARG:O	2:E:405:GLU:HG2	2.12	0.49
2:E:402:ARG:HB3	2:E:402:ARG:HH11	1.77	0.49
2:E:420:TRP:N	2:E:420:TRP:HE3	2.11	0.49
2:E:417:LEU:HD13	2:E:421:TYR:CZ	2.47	0.49
2:G:141:ASP:OD1	2:G:141:ASP:N	2.45	0.49
2:G:191:GLY:O	2:G:194:GLU:C	2.50	0.49
2:G:25:GLU:O	2:G:29:ASP:N	2.37	0.49
2:G:333:TYR:O	2:G:337:ILE:CD1	2.60	0.49
1:H:192:G:C2	1:H:193:G:N7	2.80	0.49
1:H:198:G:N2	1:H:199:C:O4'	2.45	0.49
2:A:216:LEU:HD23	2:A:217:VAL:CA	2.42	0.49
2:A:288:VAL:O	2:A:289:SER:C	2.50	0.49
2:A:333:TYR:O	2:A:336:ILE:HG12	2.12	0.49
2:A:396:ASP:O	2:A:397:LYS:C	2.49	0.49
2:A:90:VAL:HG23	2:A:91:ASN:OD1	2.13	0.49
2:C:148:ASN:C	2:C:150:ILE:N	2.65	0.49
2:C:297:ILE:O	2:C:301:LEU:N	2.22	0.49
2:C:401:ARG:O	2:C:405:GLU:HG2	2.12	0.49
2:C:95:LEU:HD12	2:C:95:LEU:N	2.27	0.49
1:D:192:G:C2	1:D:193:G:N7	2.80	0.49
2:E:372:GLU:C	2:E:374:ILE:N	2.66	0.49
1:F:187:G:H1	1:F:217:U:H3	1.59	0.49
2:G:90:VAL:HG23	2:G:91:ASN:OD1	2.13	0.49
2:A:141:ASP:N	2:A:141:ASP:OD1	2.45	0.49
2:A:216:LEU:HD21	2:A:218:ILE:HG23	1.94	0.49
2:A:223:GLY:HA2	2:A:256:ALA:CA	2.42	0.49
2:A:333:TYR:O	2:A:337:ILE:CD1	2.60	0.49
2:A:385:THR:O	2:A:388:GLU:HB2	2.13	0.49
2:A:399:ARG:O	2:A:400:MET:CB	2.60	0.49
2:A:422:ASN:C	2:A:425:ASN:ND2	2.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:425:ASN:ND2	2:A:426:ARG:N	2.61	0.49
2:A:72:SER:OG	2:A:73:ILE:N	2.46	0.49
2:C:109:LYS:CB	2:C:109:LYS:HZ3	2.26	0.49
2:C:112:THR:OG1	2:C:113:ALA:N	2.46	0.49
2:C:243:ILE:CD1	2:C:268:LYS:HB2	2.38	0.49
2:C:336:ILE:O	2:C:337:ILE:C	2.50	0.49
2:C:346:SER:CA	2:C:350:GLN:HE21	2.25	0.49
2:C:385:THR:O	2:C:388:GLU:HB2	2.13	0.49
2:C:426:ARG:HH11	2:C:426:ARG:HG2	1.78	0.49
2:C:59:LYS:O	2:C:59:LYS:HD3	2.13	0.49
2:E:333:TYR:O	2:E:336:ILE:HB	2.12	0.49
2:E:333:TYR:O	2:E:336:ILE:HG12	2.12	0.49
2:E:303:LYS:HG3	2:E:342:MET:CA	2.43	0.49
2:E:69:TRP:CD1	2:E:70:PHE:N	2.81	0.49
2:G:24:ASP:HA	2:G:27:ILE:HG12	1.92	0.49
2:G:346:SER:CA	2:G:350:GLN:HE21	2.25	0.49
2:G:376:ARG:O	2:G:377:TRP:C	2.50	0.49
2:G:381:LEU:C	2:G:383:SER:H	2.16	0.49
2:G:426:ARG:HG2	2:G:426:ARG:HH11	1.78	0.49
2:G:83:GLY:O	2:G:84:GLY:C	2.51	0.49
2:A:114:GLY:O	2:A:116:LEU:N	2.46	0.49
2:A:220:ALA:HB1	2:A:253:GLY:HA2	1.95	0.49
2:A:25:GLU:O	2:A:28:LYS:N	2.46	0.49
2:A:274:GLU:O	2:A:275:LYS:O	2.31	0.49
2:A:427:LEU:O	2:A:428:LEU:C	2.51	0.49
2:C:114:GLY:O	2:C:116:LEU:N	2.46	0.49
2:C:223:GLY:HA2	2:C:256:ALA:CA	2.42	0.49
2:C:231:SER:O	2:C:233:PHE:N	2.45	0.49
2:C:346:SER:HA	2:C:350:GLN:NE2	2.28	0.49
2:E:304:VAL:CB	2:E:308:GLU:OE1	2.60	0.49
2:E:381:LEU:C	2:E:383:SER:N	2.65	0.49
1:F:210:G:HO2'	1:F:211:C:H6	1.58	0.49
2:G:114:GLY:O	2:G:116:LEU:N	2.46	0.49
2:G:163:PRO:HG2	2:G:164:ILE:HG13	1.93	0.49
2:G:303:LYS:HG3	2:G:342:MET:CA	2.43	0.49
2:G:354:GLY:C	2:G:355:LEU:HD23	2.32	0.49
2:A:115:LYS:HG2	2:A:276:ILE:C	2.34	0.48
2:A:136:ARG:HH11	2:A:136:ARG:HG2	1.78	0.48
2:A:192:TYR:CE1	2:A:229:LEU:HD13	2.48	0.48
2:A:267:ILE:N	2:A:267:ILE:CD1	2.71	0.48
2:A:269:PHE:CD1	2:A:281:THR:HA	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:303:LYS:HG3	2:A:342:MET:CA	2.43	0.48
2:A:374:ILE:CD1	2:A:375:ARG:N	2.73	0.48
2:A:420:TRP:N	2:A:420:TRP:HE3	2.11	0.48
2:A:77:GLU:OE1	2:A:80:LYS:HD2	2.13	0.48
2:C:303:LYS:HG3	2:C:342:MET:CA	2.43	0.48
2:C:417:LEU:HD13	2:C:421:TYR:OH	2.13	0.48
2:C:77:GLU:OE1	2:C:80:LYS:HD2	2.13	0.48
2:E:304:VAL:O	2:E:308:GLU:OE1	2.30	0.48
2:E:336:ILE:O	2:E:337:ILE:C	2.50	0.48
2:E:345:LEU:CG	2:E:346:SER:H	2.24	0.48
2:E:385:THR:O	2:E:388:GLU:HB2	2.13	0.48
2:E:72:SER:OG	2:E:73:ILE:N	2.46	0.48
2:E:83:GLY:O	2:E:84:GLY:C	2.51	0.48
2:G:168:LYS:O	2:G:169:LYS:C	2.50	0.48
2:G:195:GLU:C	2:G:199:LEU:HD21	2.33	0.48
2:G:20:GLU:O	2:G:23:VAL:CB	2.59	0.48
2:G:247:MET:C	2:G:249:GLY:N	2.66	0.48
2:G:69:TRP:CD1	2:G:70:PHE:N	2.81	0.48
2:G:77:GLU:OE1	2:G:80:LYS:HD2	2.13	0.48
2:A:102:VAL:HG22	2:A:215:ILE:O	2.13	0.48
2:A:374:ILE:HD13	2:A:375:ARG:H	1.76	0.48
2:C:195:GLU:C	2:C:199:LEU:HD21	2.33	0.48
2:C:206:TYR:HD1	2:C:207:ASP:N	2.11	0.48
2:C:82:PHE:O	2:C:261:VAL:HG11	2.11	0.48
2:C:276:ILE:O	2:C:276:ILE:HD12	2.13	0.48
2:C:381:LEU:C	2:C:383:SER:H	2.16	0.48
2:C:384:MET:HG2	2:C:388:GLU:OE2	2.14	0.48
2:C:69:TRP:CD1	2:C:70:PHE:N	2.81	0.48
2:C:94:LYS:O	2:C:95:LEU:HG	2.14	0.48
2:E:146:LEU:N	2:E:146:LEU:CD2	2.68	0.48
2:E:274:GLU:O	2:E:275:LYS:O	2.31	0.48
2:E:349:LEU:O	2:E:352:ILE:O	2.31	0.48
2:E:6:ARG:HB2	2:E:291:ILE:O	2.14	0.48
2:G:206:TYR:HD1	2:G:207:ASP:N	2.12	0.48
2:G:99:ILE:HD12	2:G:213:ASP:HB3	1.95	0.48
2:G:102:VAL:HG22	2:G:215:ILE:O	2.13	0.48
2:G:216:LEU:HD21	2:G:218:ILE:HG23	1.94	0.48
2:G:274:GLU:O	2:G:275:LYS:O	2.31	0.48
2:G:402:ARG:HB3	2:G:402:ARG:HH11	1.77	0.48
2:G:68:GLU:O	2:G:69:TRP:C	2.52	0.48
2:A:423:ASN:OD1	2:A:427:LEU:HD13	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:54:ARG:O	2:A:55:LEU:C	2.49	0.48
2:A:69:TRP:CD1	2:A:70:PHE:N	2.81	0.48
2:C:166:ILE:CG2	2:C:167:ALA:N	2.77	0.48
2:C:274:GLU:O	2:C:275:LYS:O	2.31	0.48
2:C:303:LYS:HE3	2:C:341:LYS:HB3	1.95	0.48
2:C:327:LEU:HB3	2:C:330:ARG:HD3	1.95	0.48
2:C:348:VAL:O	2:C:349:LEU:C	2.50	0.48
2:E:114:GLY:O	2:E:116:LEU:N	2.46	0.48
2:E:158:PRO:O	2:E:159:ASN:C	2.50	0.48
2:E:423:ASN:OD1	2:E:427:LEU:HD13	2.13	0.48
2:E:77:GLU:OE1	2:E:80:LYS:HD2	2.13	0.48
2:G:115:LYS:HG2	2:G:276:ILE:C	2.33	0.48
2:G:300:ILE:HB	2:G:343:GLY:N	2.27	0.48
2:G:385:THR:O	2:G:388:GLU:HB2	2.13	0.48
2:G:47:LEU:HG	2:G:51:ILE:CD1	2.42	0.48
2:A:327:LEU:HB3	2:A:330:ARG:HD3	1.95	0.48
2:A:346:SER:HA	2:A:350:GLN:NE2	2.29	0.48
2:A:417:LEU:HD13	2:A:421:TYR:OH	2.13	0.48
2:C:147:GLY:O	2:C:152:VAL:N	2.43	0.48
2:C:349:LEU:O	2:C:352:ILE:O	2.32	0.48
2:C:54:ARG:O	2:C:55:LEU:C	2.49	0.48
2:C:71:ILE:N	2:C:71:ILE:HD13	2.26	0.48
2:C:72:SER:OG	2:C:73:ILE:N	2.46	0.48
2:E:104:VAL:HA	2:E:198:LEU:CD2	2.43	0.48
2:E:231:SER:O	2:E:233:PHE:N	2.45	0.48
2:E:376:ARG:O	2:E:377:TRP:C	2.50	0.48
1:F:192:G:C2	1:F:193:G:N7	2.80	0.48
2:G:100:MET:HE1	2:G:205:MET:C	2.34	0.48
2:G:140:TYR:O	2:G:143:LEU:N	2.47	0.48
2:G:172:ASP:HA	2:G:175:VAL:CG2	2.43	0.48
2:G:28:LYS:HA	2:G:31:GLN:CD	2.32	0.48
2:G:346:SER:HA	2:G:350:GLN:NE2	2.29	0.48
2:G:423:ASN:OD1	2:G:427:LEU:HD13	2.13	0.48
2:A:195:GLU:C	2:A:199:LEU:HD21	2.33	0.48
2:A:231:SER:O	2:A:233:PHE:N	2.45	0.48
2:A:216:LEU:O	2:A:242:VAL:HG12	2.14	0.48
2:A:247:MET:C	2:A:249:GLY:N	2.66	0.48
2:A:99:ILE:O	2:A:99:ILE:CG2	2.58	0.48
2:C:123:ARG:CG	2:C:123:ARG:NH1	2.76	0.48
2:C:140:TYR:O	2:C:143:LEU:N	2.47	0.48
2:C:333:TYR:O	2:C:336:ILE:HG12	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:345:LEU:CG	2:C:346:SER:H	2.24	0.48
2:C:423:ASN:OD1	2:C:427:LEU:HD13	2.13	0.48
2:E:127:VAL:HG21	2:E:152:VAL:HG13	1.95	0.48
2:E:192:TYR:CE1	2:E:229:LEU:HD13	2.48	0.48
2:E:206:TYR:HD1	2:E:207:ASP:N	2.11	0.48
2:E:233:PHE:C	2:E:235:GLN:H	2.15	0.48
2:E:327:LEU:HB3	2:E:330:ARG:HD3	1.95	0.48
2:E:384:MET:HG2	2:E:388:GLU:OE2	2.14	0.48
2:E:424:MET:C	2:E:425:ASN:HD22	2.15	0.48
2:G:126:LYS:N	2:G:126:LYS:HD2	2.28	0.48
2:G:136:ARG:HH11	2:G:136:ARG:HG2	1.78	0.48
2:G:173:ILE:N	2:G:173:ILE:CD1	2.75	0.48
2:A:114:GLY:O	2:A:117:ALA:N	2.47	0.48
2:A:140:TYR:O	2:A:143:LEU:N	2.47	0.48
2:A:349:LEU:O	2:A:352:ILE:O	2.32	0.48
2:C:233:PHE:C	2:C:235:GLN:H	2.15	0.48
2:C:74:VAL:HG23	2:C:75:TYR:H	1.61	0.48
2:E:195:GLU:C	2:E:199:LEU:HD21	2.33	0.48
2:E:204:GLU:O	2:E:208:VAL:CG2	2.58	0.48
2:E:25:GLU:O	2:E:28:LYS:N	2.46	0.48
2:E:357:ILE:O	2:E:358:MET:HB3	2.13	0.48
2:E:411:VAL:HG12	2:E:412:GLU:N	2.29	0.48
2:E:417:LEU:HD13	2:E:421:TYR:OH	2.13	0.48
2:E:422:ASN:C	2:E:425:ASN:ND2	2.50	0.48
2:E:95:LEU:N	2:E:95:LEU:HD12	2.27	0.48
2:G:130:VAL:HB	2:G:184:VAL:CG1	2.44	0.48
2:G:372:GLU:C	2:G:374:ILE:N	2.66	0.48
2:A:206:TYR:HD1	2:A:207:ASP:N	2.11	0.48
2:A:83:GLY:O	2:A:84:GLY:C	2.51	0.48
2:C:114:GLY:O	2:C:117:ALA:N	2.47	0.48
2:C:170:GLY:O	2:C:173:ILE:CG1	2.62	0.48
2:C:192:TYR:CE1	2:C:229:LEU:HD13	2.48	0.48
2:C:233:PHE:HD1	2:C:236:ALA:HB3	1.79	0.48
2:C:313:ILE:O	2:C:315:LYS:HG2	2.13	0.48
2:C:374:ILE:C	2:C:376:ARG:N	2.59	0.48
2:C:411:VAL:HG12	2:C:412:GLU:N	2.29	0.48
2:C:75:TYR:O	2:C:78:LEU:N	2.47	0.48
2:E:20:GLU:O	2:E:23:VAL:CB	2.59	0.48
2:G:170:GLY:O	2:G:173:ILE:CG1	2.62	0.48
2:G:132:ALA:CB	2:G:185:ASP:O	2.51	0.48
1:H:184:G:H5"	1:H:185:G:OP2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:129:LEU:HD11	2:A:152:VAL:HG11	1.96	0.48
2:A:345:LEU:CG	2:A:346:SER:H	2.24	0.48
2:A:403:ILE:O	2:A:407:SER:N	2.41	0.48
2:A:86:LYS:HZ3	2:A:89:ASN:CG	2.16	0.48
1:B:184:G:H5''	1:B:185:G:OP2	2.14	0.48
2:C:172:ASP:HA	2:C:175:VAL:CG2	2.44	0.48
2:C:399:ARG:O	2:C:400:MET:CB	2.60	0.48
2:E:140:TYR:O	2:E:143:LEU:N	2.47	0.48
2:E:146:LEU:O	2:E:149:GLN:N	2.47	0.48
2:E:173:ILE:CD1	2:E:173:ILE:N	2.75	0.48
2:E:115:LYS:HG2	2:E:276:ILE:C	2.33	0.48
2:E:299:SER:O	2:E:302:GLU:N	2.47	0.48
2:G:25:GLU:O	2:G:28:LYS:N	2.46	0.48
2:G:297:ILE:O	2:G:301:LEU:N	2.22	0.48
2:G:381:LEU:C	2:G:383:SER:N	2.65	0.48
2:A:168:LYS:O	2:A:169:LYS:C	2.50	0.48
2:A:6:ARG:HB2	2:A:291:ILE:O	2.14	0.48
2:A:313:ILE:O	2:A:315:LYS:HG2	2.13	0.48
2:A:357:ILE:O	2:A:358:MET:HB3	2.13	0.48
2:C:104:VAL:CG2	2:C:105:GLN:N	2.61	0.48
2:C:25:GLU:O	2:C:28:LYS:N	2.46	0.48
2:C:68:GLU:O	2:C:69:TRP:C	2.52	0.48
2:E:136:ARG:HH11	2:E:136:ARG:HG2	1.78	0.48
2:E:166:ILE:CG2	2:E:167:ALA:N	2.77	0.48
2:E:172:ASP:HA	2:E:175:VAL:CG2	2.44	0.48
2:E:195:GLU:CG	2:E:196:THR:H	2.25	0.48
2:E:303:LYS:HG3	2:E:342:MET:CB	2.44	0.48
2:G:112:THR:OG1	2:G:113:ALA:N	2.46	0.48
2:G:216:LEU:O	2:G:242:VAL:HG12	2.14	0.48
2:G:279:LEU:CD1	2:G:280:GLU:N	2.74	0.48
2:G:287:PHE:O	2:G:290:ARG:CB	2.62	0.48
2:G:299:SER:O	2:G:302:GLU:N	2.47	0.48
2:G:316:LYS:HZ2	2:G:316:LYS:HB3	1.78	0.48
2:G:34:LEU:HD23	2:G:34:LEU:N	2.29	0.48
2:G:94:LYS:O	2:G:95:LEU:HG	2.14	0.48
2:A:253:GLY:O	2:A:256:ALA:N	2.45	0.48
2:A:308:GLU:O	2:A:309:GLU:CB	2.62	0.48
2:A:77:GLU:O	2:A:81:LEU:HB3	2.14	0.48
2:A:94:LYS:O	2:A:95:LEU:HG	2.14	0.48
1:B:216:G:C2'	1:B:217:U:H5''	2.43	0.48
2:C:126:LYS:N	2:C:126:LYS:HD2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:420:TRP:HE3	2:C:420:TRP:N	2.11	0.48
2:E:112:THR:OG1	2:E:113:ALA:N	2.46	0.48
2:E:170:GLY:O	2:E:173:ILE:CG1	2.62	0.48
2:G:417:LEU:HD13	2:G:421:TYR:CZ	2.47	0.48
2:G:356:GLY:HA2	2:G:424:MET:HE1	1.95	0.48
2:A:170:GLY:O	2:A:173:ILE:CG1	2.62	0.47
2:C:104:VAL:HA	2:C:198:LEU:CD2	2.43	0.47
2:C:208:VAL:N	2:C:210:LYS:HZ2	2.12	0.47
2:C:98:ILE:HD13	2:C:209:LEU:CD2	2.44	0.47
2:C:99:ILE:HD12	2:C:213:ASP:HB3	1.95	0.47
2:C:6:ARG:HB2	2:C:291:ILE:O	2.14	0.47
2:C:328:THR:HG22	2:C:329:LEU:N	2.27	0.47
2:C:337:ILE:N	2:C:337:ILE:CD1	2.74	0.47
2:C:303:LYS:HG3	2:C:342:MET:CB	2.44	0.47
2:E:346:SER:HA	2:E:350:GLN:NE2	2.28	0.47
2:E:412:GLU:O	2:E:413:GLU:C	2.52	0.47
2:E:75:TYR:O	2:E:78:LEU:N	2.47	0.47
2:G:146:LEU:O	2:G:149:GLN:N	2.47	0.47
2:G:6:ARG:HB2	2:G:291:ILE:O	2.14	0.47
2:G:29:ASP:O	2:G:30:LEU:C	2.50	0.47
2:G:385:THR:HG23	2:G:388:GLU:H	1.79	0.47
2:G:420:TRP:N	2:G:420:TRP:HE3	2.11	0.47
2:A:104:VAL:HA	2:A:198:LEU:CD2	2.43	0.47
2:A:99:ILE:HD12	2:A:213:ASP:HB3	1.95	0.47
2:A:287:PHE:O	2:A:290:ARG:CB	2.62	0.47
2:A:297:ILE:C	2:A:299:SER:N	2.64	0.47
2:A:374:ILE:HD13	2:A:375:ARG:CA	2.44	0.47
2:C:115:LYS:HG2	2:C:276:ILE:C	2.34	0.47
2:C:162:ASN:ND2	2:G:159:ASN:HD21	2.05	0.47
2:C:102:VAL:HG22	2:C:215:ILE:O	2.13	0.47
2:C:402:ARG:HB3	2:C:402:ARG:HH11	1.77	0.47
2:E:114:GLY:O	2:E:117:ALA:N	2.47	0.47
2:E:294:MET:SD	2:E:294:MET:C	2.92	0.47
2:E:60:PRO:HB3	2:E:69:TRP:CB	2.44	0.47
2:G:114:GLY:O	2:G:117:ALA:N	2.47	0.47
2:G:233:PHE:HD1	2:G:236:ALA:HB3	1.79	0.47
2:G:276:ILE:HD12	2:G:276:ILE:O	2.13	0.47
2:G:294:MET:C	2:G:294:MET:SD	2.92	0.47
2:G:308:GLU:O	2:G:309:GLU:CB	2.62	0.47
2:G:349:LEU:O	2:G:352:ILE:O	2.32	0.47
2:G:377:TRP:CA	2:G:377:TRP:CE3	2.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:384:MET:HG2	2:G:388:GLU:OE2	2.14	0.47
2:G:98:ILE:HD13	2:G:209:LEU:CD2	2.44	0.47
2:A:117:ALA:O	2:A:120:TYR:N	2.48	0.47
2:A:146:LEU:O	2:A:149:GLN:N	2.47	0.47
2:A:303:LYS:HG3	2:A:342:MET:CB	2.44	0.47
2:A:372:GLU:C	2:A:374:ILE:N	2.66	0.47
2:A:66:ARG:CB	2:A:66:ARG:HH11	2.14	0.47
2:C:159:ASN:HB3	2:G:161:GLN:O	2.14	0.47
2:C:172:ASP:HA	2:C:175:VAL:CB	2.44	0.47
2:C:374:ILE:HD13	2:C:375:ARG:CA	2.44	0.47
2:C:412:GLU:O	2:C:413:GLU:C	2.52	0.47
2:E:303:LYS:HE3	2:E:341:LYS:HB3	1.95	0.47
2:G:192:TYR:CE1	2:G:229:LEU:HD13	2.48	0.47
2:G:313:ILE:O	2:G:315:LYS:HG2	2.13	0.47
2:G:72:SER:OG	2:G:73:ILE:N	2.46	0.47
2:A:195:GLU:CG	2:A:196:THR:H	2.25	0.47
2:A:299:SER:O	2:A:302:GLU:N	2.47	0.47
2:A:376:ARG:NH2	2:A:376:ARG:HG3	2.20	0.47
2:A:402:ARG:HB3	2:A:402:ARG:HH11	1.77	0.47
2:A:412:GLU:O	2:A:413:GLU:C	2.52	0.47
2:A:68:GLU:O	2:A:69:TRP:C	2.52	0.47
1:B:218:G:H2'	1:B:218:G:N3	2.29	0.47
2:C:297:ILE:C	2:C:299:SER:N	2.64	0.47
2:C:299:SER:O	2:C:302:GLU:N	2.47	0.47
2:C:356:GLY:HA2	2:C:424:MET:CE	2.45	0.47
2:C:377:TRP:CE3	2:C:377:TRP:CA	2.97	0.47
2:E:101:LEU:O	2:E:186:THR:N	2.42	0.47
2:E:233:PHE:C	2:E:233:PHE:CD1	2.86	0.47
2:E:233:PHE:HD1	2:E:236:ALA:HB3	1.79	0.47
2:E:298:GLU:H	2:E:298:GLU:HG3	1.55	0.47
2:E:313:ILE:O	2:E:315:LYS:HG2	2.13	0.47
2:E:328:THR:HG22	2:E:329:LEU:N	2.27	0.47
2:E:34:LEU:HD23	2:E:34:LEU:N	2.29	0.47
2:E:356:GLY:HA2	2:E:424:MET:CE	2.45	0.47
1:F:223:G:H2'	1:F:224:U:O5'	2.15	0.47
2:G:166:ILE:CG2	2:G:167:ALA:N	2.77	0.47
2:A:165:GLU:HB2	2:A:166:ILE:H	1.53	0.47
2:A:166:ILE:CG2	2:A:167:ALA:N	2.77	0.47
2:A:170:GLY:HA2	2:A:173:ILE:HG12	1.97	0.47
2:A:233:PHE:O	2:A:235:GLN:N	2.48	0.47
2:A:238:PRO:C	2:A:240:GLY:H	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:303:LYS:HE3	2:A:341:LYS:HB3	1.95	0.47
2:A:424:MET:C	2:A:425:ASN:HD22	2.15	0.47
2:A:60:PRO:HB3	2:A:69:TRP:CB	2.44	0.47
2:C:129:LEU:HD11	2:C:152:VAL:HG11	1.96	0.47
2:C:166:ILE:CG2	2:C:167:ALA:H	2.27	0.47
2:C:34:LEU:HD23	2:C:34:LEU:N	2.29	0.47
2:C:65:GLU:OE1	2:C:65:GLU:N	2.48	0.47
2:E:233:PHE:O	2:E:235:GLN:N	2.48	0.47
2:E:381:LEU:C	2:E:383:SER:H	2.16	0.47
2:G:129:LEU:HD11	2:G:152:VAL:HG11	1.95	0.47
2:G:160:ASN:C	2:G:160:ASN:HD22	2.17	0.47
2:G:209:LEU:O	2:G:210:LYS:CB	2.62	0.47
2:G:345:LEU:CG	2:G:346:SER:H	2.24	0.47
2:G:378:LEU:C	2:G:378:LEU:CD2	2.83	0.47
2:G:412:GLU:O	2:G:413:GLU:C	2.52	0.47
2:G:75:TYR:O	2:G:78:LEU:N	2.47	0.47
2:A:34:LEU:N	2:A:34:LEU:HD23	2.29	0.47
2:A:411:VAL:HG12	2:A:412:GLU:N	2.29	0.47
2:A:377:TRP:CZ3	2:A:417:LEU:HD23	2.50	0.47
2:C:146:LEU:O	2:C:149:GLN:N	2.47	0.47
2:C:298:GLU:CA	2:C:301:LEU:HB3	2.45	0.47
2:C:425:ASN:C	2:C:428:LEU:HB3	2.35	0.47
2:E:130:VAL:HB	2:E:184:VAL:CG1	2.44	0.47
2:E:165:GLU:HB2	2:E:166:ILE:H	1.52	0.47
2:E:172:ASP:HA	2:E:175:VAL:CB	2.44	0.47
2:E:304:VAL:CG1	2:E:308:GLU:CD	2.62	0.47
2:E:331:ASP:CA	2:E:334:ALA:HB3	2.45	0.47
2:E:377:TRP:CE3	2:E:377:TRP:CA	2.98	0.47
2:E:94:LYS:O	2:E:95:LEU:HG	2.13	0.47
2:G:303:LYS:HE3	2:G:341:LYS:HB3	1.95	0.47
2:G:377:TRP:CZ3	2:G:417:LEU:HD23	2.50	0.47
2:G:65:GLU:N	2:G:65:GLU:OE1	2.48	0.47
2:G:77:GLU:O	2:G:81:LEU:HB3	2.14	0.47
1:H:218:G:N3	1:H:218:G:H2'	2.29	0.47
2:A:172:ASP:HA	2:A:175:VAL:CG2	2.43	0.47
2:A:263:THR:HG1	2:A:265:ALA:HB2	1.79	0.47
2:A:294:MET:C	2:A:294:MET:SD	2.92	0.47
2:A:376:ARG:O	2:A:377:TRP:C	2.50	0.47
2:A:377:TRP:CE3	2:A:377:TRP:CA	2.97	0.47
2:A:388:GLU:CB	2:A:389:LEU:HD23	2.45	0.47
2:C:127:VAL:HG21	2:C:152:VAL:HG13	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:182:ILE:C	2:C:183:ILE:HD12	2.35	0.47
2:C:294:MET:C	2:C:294:MET:SD	2.92	0.47
1:D:211:C:O4'	2:C:406:GLY:HA3	2.15	0.47
2:E:115:LYS:HD2	2:E:279:LEU:HB2	1.96	0.47
2:E:339:LEU:CA	2:E:342:MET:HB3	2.45	0.47
2:E:68:GLU:O	2:E:69:TRP:C	2.52	0.47
2:G:171:VAL:HB	2:G:172:ASP:H	1.41	0.47
2:G:182:ILE:C	2:G:183:ILE:HD12	2.35	0.47
2:G:104:VAL:HA	2:G:198:LEU:CD2	2.43	0.47
2:G:233:PHE:O	2:G:235:GLN:N	2.48	0.47
2:G:298:GLU:CA	2:G:301:LEU:HB3	2.45	0.47
2:G:388:GLU:CB	2:G:389:LEU:HD23	2.45	0.47
2:G:411:VAL:HG12	2:G:412:GLU:N	2.29	0.47
2:A:166:ILE:CG2	2:A:167:ALA:H	2.27	0.47
2:A:276:ILE:HD12	2:A:276:ILE:O	2.13	0.47
2:A:384:MET:HG2	2:A:388:GLU:OE2	2.14	0.47
2:A:425:ASN:CG	2:A:426:ARG:H	2.18	0.47
2:C:113:ALA:HA	2:C:116:LEU:HD23	1.96	0.47
2:C:117:ALA:O	2:C:120:TYR:N	2.48	0.47
2:C:136:ARG:HH11	2:C:136:ARG:HG2	1.78	0.47
2:C:170:GLY:C	2:C:174:PHE:CE2	2.88	0.47
2:C:195:GLU:CG	2:C:196:THR:H	2.25	0.47
2:C:210:LYS:N	2:C:211:PRO:CD	2.78	0.47
2:C:328:THR:CG2	2:C:329:LEU:HD12	2.40	0.47
2:C:60:PRO:HB3	2:C:69:TRP:CB	2.45	0.47
2:E:243:ILE:HD12	2:E:269:PHE:CA	2.43	0.47
2:E:276:ILE:O	2:E:276:ILE:HD12	2.14	0.47
2:G:119:PHE:CE2	2:G:120:TYR:CZ	3.03	0.47
2:G:117:ALA:O	2:G:120:TYR:N	2.48	0.47
2:G:263:THR:HG1	2:G:265:ALA:HB2	1.80	0.47
2:G:339:LEU:O	2:G:342:MET:N	2.48	0.47
2:G:374:ILE:CD1	2:G:375:ARG:N	2.73	0.47
2:G:425:ASN:CG	2:G:426:ARG:H	2.18	0.47
2:G:60:PRO:HB3	2:G:69:TRP:CB	2.44	0.47
1:H:223:G:H2'	1:H:224:U:O5'	2.15	0.47
2:A:243:ILE:HG21	2:A:269:PHE:HB2	1.97	0.47
2:A:279:LEU:CD1	2:A:280:GLU:N	2.74	0.47
2:A:47:LEU:HG	2:A:51:ILE:CD1	2.42	0.47
2:A:75:TYR:O	2:A:78:LEU:N	2.47	0.47
1:B:223:G:H2'	1:B:224:U:O5'	2.15	0.47
2:C:119:PHE:CE2	2:C:120:TYR:CZ	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:263:THR:HG1	2:C:265:ALA:HB2	1.78	0.47
2:C:297:ILE:CD1	2:C:298:GLU:N	2.75	0.47
2:C:331:ASP:CA	2:C:334:ALA:HB3	2.45	0.47
2:C:373:LYS:HA	2:C:376:ARG:CG	2.42	0.47
2:C:377:TRP:CZ3	2:C:417:LEU:HD23	2.50	0.47
1:D:184:G:H5''	1:D:185:G:OP2	2.14	0.47
2:E:161:GLN:O	2:E:162:ASN:HB2	2.15	0.47
2:E:182:ILE:C	2:E:183:ILE:HD12	2.35	0.47
2:E:298:GLU:CA	2:E:301:LEU:HB3	2.45	0.47
2:E:378:LEU:CD2	2:E:378:LEU:C	2.83	0.47
1:F:184:G:H5''	1:F:185:G:OP2	2.14	0.47
2:G:101:LEU:HD22	2:G:101:LEU:HA	1.53	0.47
2:G:195:GLU:CG	2:G:196:THR:H	2.25	0.47
2:G:374:ILE:HD13	2:G:375:ARG:H	1.76	0.47
2:G:374:ILE:HD13	2:G:375:ARG:CA	2.44	0.47
2:G:384:MET:HE1	2:G:389:LEU:HD22	1.97	0.47
2:G:417:LEU:HD13	2:G:421:TYR:OH	2.13	0.47
2:A:209:LEU:HD13	2:A:211:PRO:HB3	1.97	0.47
2:A:233:PHE:HD1	2:A:236:ALA:HB3	1.79	0.47
2:A:115:LYS:HD2	2:A:279:LEU:HB2	1.96	0.47
2:A:311:ASP:N	2:A:311:ASP:OD1	2.31	0.47
2:A:385:THR:HG23	2:A:388:GLU:H	1.79	0.47
2:A:425:ASN:C	2:A:428:LEU:HB3	2.35	0.47
1:B:200:C:C2	1:B:201:C:C5	3.03	0.47
2:C:106:GLY:HA2	2:C:109:LYS:CG	2.45	0.47
2:C:425:ASN:ND2	2:C:426:ARG:N	2.61	0.47
2:E:160:ASN:HD22	2:E:160:ASN:C	2.17	0.47
2:E:209:LEU:O	2:E:210:LYS:CB	2.62	0.47
2:E:216:LEU:O	2:E:242:VAL:HG12	2.14	0.47
2:E:337:ILE:N	2:E:337:ILE:CD1	2.74	0.47
2:E:377:TRP:CZ3	2:E:417:LEU:HD23	2.50	0.47
2:E:40:ASN:C	2:E:43:LEU:HD11	2.35	0.47
1:F:195:C:C2'	1:F:195:C:O2	2.52	0.47
1:F:211:C:O4'	2:E:406:GLY:HA3	2.15	0.47
2:G:170:GLY:HA2	2:G:173:ILE:HG12	1.97	0.47
2:G:170:GLY:C	2:G:174:PHE:CE2	2.89	0.47
2:G:193:GLY:C	2:G:195:GLU:N	2.65	0.47
2:G:238:PRO:C	2:G:240:GLY:H	2.18	0.47
2:G:24:ASP:O	2:G:25:GLU:O	2.33	0.47
2:G:269:PHE:CD1	2:G:281:THR:HA	2.44	0.47
2:G:346:SER:O	2:G:347:LYS:C	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:59:LYS:HZ2	2:G:60:PRO:C	2.19	0.47
1:H:200:C:C2	1:H:201:C:C5	3.03	0.47
2:A:168:LYS:O	2:A:169:LYS:O	2.34	0.47
2:A:170:GLY:C	2:A:174:PHE:CE2	2.89	0.47
2:A:243:ILE:HD12	2:A:269:PHE:CA	2.44	0.47
2:A:346:SER:O	2:A:347:LYS:C	2.54	0.47
2:A:39:VAL:HA	2:A:255:GLY:N	2.30	0.47
2:A:40:ASN:C	2:A:43:LEU:HD11	2.35	0.47
2:C:111:THR:HG1	2:C:112:THR:N	2.12	0.47
2:C:115:LYS:HA	2:C:118:TYR:CG	2.50	0.47
2:C:209:LEU:O	2:C:210:LYS:CB	2.62	0.47
2:C:233:PHE:C	2:C:233:PHE:CD1	2.86	0.47
2:C:361:THR:HB	2:C:362:PRO:CD	2.45	0.47
1:D:200:C:C2	1:D:201:C:C5	3.03	0.47
1:D:218:G:H2'	1:D:218:G:N3	2.29	0.47
2:E:106:GLY:HA2	2:E:109:LYS:CG	2.45	0.47
2:E:115:LYS:HA	2:E:118:TYR:CG	2.50	0.47
2:C:176:LYS:HE2	2:E:141:ASP:HB3	1.96	0.47
2:E:129:LEU:HD11	2:E:152:VAL:HG11	1.96	0.47
2:E:243:ILE:CD1	2:E:268:LYS:HB2	2.38	0.47
2:E:77:GLU:O	2:E:81:LEU:HB3	2.14	0.47
2:G:2:LEU:HD23	2:G:3:GLU:H	1.80	0.47
2:G:361:THR:HB	2:G:362:PRO:CD	2.45	0.47
2:G:356:GLY:HA2	2:G:424:MET:CE	2.45	0.47
2:A:108:GLY:O	2:A:112:THR:HG23	2.16	0.46
2:A:123:ARG:CG	2:A:123:ARG:NH1	2.76	0.46
2:A:140:TYR:CA	2:A:143:LEU:HG	2.46	0.46
2:A:172:ASP:HA	2:A:175:VAL:CB	2.44	0.46
2:A:180:ASP:HB3	2:A:181:ILE:HD12	1.97	0.46
2:A:209:LEU:O	2:A:210:LYS:CB	2.62	0.46
2:A:297:ILE:O	2:A:300:ILE:HG13	2.16	0.46
2:A:381:LEU:C	2:A:383:SER:H	2.16	0.46
2:C:297:ILE:O	2:C:300:ILE:HG13	2.15	0.46
2:C:47:LEU:HG	2:C:51:ILE:CD1	2.42	0.46
2:C:77:GLU:O	2:C:81:LEU:HB3	2.14	0.46
2:E:106:GLY:HA2	2:E:109:LYS:HE2	1.97	0.46
2:E:129:LEU:N	2:E:129:LEU:CD1	2.73	0.46
2:E:170:GLY:C	2:E:174:PHE:CE2	2.89	0.46
2:E:210:LYS:N	2:E:211:PRO:CD	2.78	0.46
2:E:99:ILE:HD12	2:E:213:ASP:HB3	1.95	0.46
2:E:328:THR:CG2	2:E:329:LEU:HD12	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:374:ILE:HD13	2:E:375:ARG:CA	2.44	0.46
2:E:47:LEU:HG	2:E:51:ILE:CD1	2.42	0.46
2:E:65:GLU:OE1	2:E:65:GLU:N	2.48	0.46
2:G:127:VAL:HG21	2:G:152:VAL:HG13	1.95	0.46
2:G:180:ASP:HB3	2:G:181:ILE:HD12	1.97	0.46
2:G:328:THR:C	2:G:330:ARG:N	2.68	0.46
2:A:209:LEU:HD22	2:A:210:LYS:C	2.36	0.46
2:A:219:ASP:HA	2:A:245:THR:O	2.15	0.46
2:A:334:ALA:HA	2:A:337:ILE:HD13	1.97	0.46
2:A:378:LEU:CD2	2:A:378:LEU:C	2.83	0.46
2:C:160:ASN:HD22	2:C:160:ASN:C	2.17	0.46
2:C:233:PHE:O	2:C:235:GLN:N	2.48	0.46
2:C:39:VAL:HA	2:C:255:GLY:N	2.30	0.46
2:C:388:GLU:CB	2:C:389:LEU:HD23	2.45	0.46
2:C:40:ASN:C	2:C:43:LEU:HD11	2.35	0.46
2:E:113:ALA:HA	2:E:116:LEU:HD23	1.96	0.46
2:E:117:ALA:O	2:E:120:TYR:N	2.48	0.46
2:E:140:TYR:CA	2:E:143:LEU:HG	2.46	0.46
2:E:206:TYR:CD1	2:E:206:TYR:C	2.88	0.46
2:E:98:ILE:HD13	2:E:209:LEU:CD2	2.44	0.46
2:E:238:PRO:C	2:E:240:GLY:H	2.18	0.46
2:E:23:VAL:HG13	2:E:70:PHE:CZ	2.50	0.46
2:E:299:SER:C	2:E:301:LEU:N	2.68	0.46
2:E:425:ASN:ND2	2:E:426:ARG:N	2.61	0.46
2:E:5:ILE:O	2:E:7:ASP:N	2.49	0.46
2:G:267:ILE:N	2:G:267:ILE:CD1	2.72	0.46
2:G:297:ILE:C	2:G:299:SER:N	2.64	0.46
2:A:110:THR:O	2:A:112:THR:OG1	2.33	0.46
2:A:152:VAL:HG12	2:A:152:VAL:O	2.15	0.46
2:A:201:GLU:HB3	2:A:205:MET:CE	2.45	0.46
2:A:210:LYS:N	2:A:211:PRO:CD	2.78	0.46
2:A:298:GLU:CA	2:A:301:LEU:HB3	2.45	0.46
2:A:339:LEU:O	2:A:342:MET:N	2.48	0.46
2:A:361:THR:HB	2:A:362:PRO:CD	2.45	0.46
2:C:139:ALA:HB3	2:C:140:TYR:CE1	2.50	0.46
2:C:308:GLU:C	2:C:309:GLU:HG3	2.34	0.46
2:C:328:THR:C	2:C:330:ARG:N	2.68	0.46
2:C:339:LEU:O	2:C:342:MET:N	2.48	0.46
2:C:385:THR:HG23	2:C:388:GLU:H	1.79	0.46
2:E:108:GLY:O	2:E:112:THR:HG23	2.16	0.46
2:E:175:VAL:C	2:E:178:LYS:H	2.18	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:201:GLU:HB3	2:E:205:MET:CE	2.45	0.46
2:E:219:ASP:HA	2:E:245:THR:O	2.15	0.46
2:E:39:VAL:HA	2:E:255:GLY:N	2.30	0.46
2:E:267:ILE:CG2	2:E:268:LYS:N	2.64	0.46
2:E:328:THR:C	2:E:330:ARG:N	2.68	0.46
2:E:331:ASP:HA	2:E:334:ALA:HB2	1.96	0.46
2:E:346:SER:O	2:E:347:LYS:C	2.53	0.46
2:E:361:THR:HB	2:E:362:PRO:CD	2.45	0.46
2:G:108:GLY:O	2:G:112:THR:HG23	2.15	0.46
2:G:168:LYS:O	2:G:169:LYS:O	2.33	0.46
2:G:173:ILE:CG2	2:G:174:PHE:N	2.75	0.46
2:G:271:GLY:HA2	2:G:279:LEU:HA	1.97	0.46
2:G:381:LEU:O	2:G:384:MET:N	2.49	0.46
2:A:98:ILE:HD13	2:A:209:LEU:CD2	2.44	0.46
2:A:23:VAL:HG13	2:A:70:PHE:CZ	2.50	0.46
2:A:65:GLU:N	2:A:65:GLU:OE1	2.48	0.46
2:C:140:TYR:CA	2:C:143:LEU:HG	2.45	0.46
2:C:170:GLY:O	2:C:173:ILE:HG12	2.16	0.46
2:C:206:TYR:CD1	2:C:206:TYR:C	2.88	0.46
2:C:209:LEU:C	2:C:209:LEU:HD23	2.36	0.46
2:C:217:VAL:C	2:C:218:ILE:HD13	2.36	0.46
2:C:378:LEU:CD2	2:C:378:LEU:C	2.83	0.46
1:D:223:G:H2'	1:D:224:U:O5'	2.14	0.46
2:E:110:THR:O	2:E:112:THR:OG1	2.33	0.46
2:E:297:ILE:O	2:E:300:ILE:HG13	2.16	0.46
2:E:311:ASP:O	2:E:312:LYS:C	2.54	0.46
2:E:403:ILE:O	2:E:407:SER:N	2.41	0.46
2:E:425:ASN:CG	2:E:426:ARG:H	2.18	0.46
1:F:218:G:H2'	1:F:218:G:N3	2.29	0.46
2:G:208:VAL:HG23	2:G:209:LEU:N	2.31	0.46
2:G:219:ASP:HA	2:G:245:THR:O	2.15	0.46
2:G:40:ASN:C	2:G:43:LEU:HD11	2.35	0.46
2:G:424:MET:C	2:G:425:ASN:HD22	2.15	0.46
2:A:112:THR:OG1	2:A:113:ALA:N	2.46	0.46
2:A:190:HIS:HB3	2:A:194:GLU:HB2	1.98	0.46
2:A:206:TYR:C	2:A:206:TYR:CD1	2.88	0.46
2:A:243:ILE:CD1	2:A:268:LYS:HB2	2.38	0.46
2:A:394:ILE:H	2:A:395:ILE:CD1	2.12	0.46
2:A:41:VAL:HA	2:A:44:VAL:HG21	1.96	0.46
2:A:356:GLY:HA2	2:A:424:MET:CE	2.45	0.46
1:B:211:C:O4'	2:A:406:GLY:HA3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:152:VAL:O	2:C:152:VAL:HG12	2.15	0.46
2:C:209:LEU:HD22	2:C:210:LYS:C	2.36	0.46
2:C:216:LEU:O	2:C:242:VAL:HG12	2.14	0.46
2:C:334:ALA:HA	2:C:337:ILE:HD13	1.97	0.46
2:E:127:VAL:HG23	2:E:128:GLY:N	2.30	0.46
2:E:253:GLY:O	2:E:256:ALA:N	2.45	0.46
2:E:381:LEU:O	2:E:384:MET:N	2.49	0.46
2:E:388:GLU:CB	2:E:389:LEU:HD23	2.45	0.46
2:G:115:LYS:HD2	2:G:279:LEU:HB2	1.96	0.46
2:G:210:LYS:N	2:G:211:PRO:CD	2.78	0.46
2:G:39:VAL:HA	2:G:255:GLY:N	2.30	0.46
2:G:270:ILE:HG23	2:G:271:GLY:N	2.31	0.46
2:G:303:LYS:HG3	2:G:342:MET:CB	2.44	0.46
2:G:425:ASN:C	2:G:428:LEU:HB3	2.35	0.46
1:H:186:G:H1'	1:H:219:C:O2	2.16	0.46
2:A:127:VAL:HG23	2:A:128:GLY:N	2.30	0.46
2:A:169:LYS:O	2:A:173:ILE:HD13	2.16	0.46
2:A:175:VAL:C	2:A:178:LYS:H	2.18	0.46
2:A:271:GLY:HA2	2:A:279:LEU:HA	1.97	0.46
2:A:299:SER:C	2:A:301:LEU:N	2.68	0.46
2:A:373:LYS:O	2:A:376:ARG:CB	2.60	0.46
2:A:40:ASN:O	2:A:43:LEU:HD11	2.16	0.46
1:B:186:G:O2'	1:B:187:G:C8	2.59	0.46
2:C:140:TYR:C	2:C:143:LEU:HG	2.36	0.46
2:C:23:VAL:HG13	2:C:70:PHE:CZ	2.50	0.46
2:C:219:ASP:HA	2:C:245:THR:O	2.15	0.46
2:C:339:LEU:CA	2:C:342:MET:HB3	2.45	0.46
2:C:346:SER:O	2:C:347:LYS:C	2.54	0.46
2:E:146:LEU:O	2:E:147:GLY:C	2.53	0.46
2:E:339:LEU:O	2:E:342:MET:N	2.48	0.46
2:E:425:ASN:C	2:E:428:LEU:HB3	2.35	0.46
1:F:200:C:C2	1:F:201:C:C5	3.03	0.46
2:G:104:VAL:C	2:G:105:GLN:O	2.50	0.46
2:G:140:TYR:CA	2:G:143:LEU:HG	2.46	0.46
2:G:152:VAL:O	2:G:152:VAL:HG12	2.15	0.46
2:G:209:LEU:C	2:G:209:LEU:HD23	2.36	0.46
2:G:243:ILE:HD12	2:G:269:PHE:CA	2.44	0.46
2:G:297:ILE:O	2:G:300:ILE:HG13	2.16	0.46
2:G:331:ASP:CA	2:G:334:ALA:HB3	2.45	0.46
2:G:428:LEU:O	2:G:430:MET:N	2.49	0.46
2:G:5:ILE:O	2:G:7:ASP:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:166:ILE:HA	2:A:169:LYS:HD2	1.98	0.46
2:A:208:VAL:HG23	2:A:209:LEU:N	2.31	0.46
1:B:186:G:H1'	1:B:219:C:O2	2.16	0.46
2:C:175:VAL:C	2:C:178:LYS:H	2.18	0.46
2:C:243:ILE:CD1	2:C:269:PHE:N	2.55	0.46
2:C:381:LEU:O	2:C:384:MET:N	2.49	0.46
2:E:170:GLY:HA2	2:E:173:ILE:HG12	1.97	0.46
2:E:209:LEU:C	2:E:209:LEU:HD23	2.36	0.46
2:E:209:LEU:HD13	2:E:211:PRO:HB3	1.97	0.46
2:E:259:ALA:O	2:E:260:VAL:O	2.34	0.46
2:E:263:THR:HG1	2:E:265:ALA:HB2	1.79	0.46
2:E:284:ALA:O	2:E:288:VAL:N	2.49	0.46
2:E:381:LEU:H	2:E:381:LEU:HD23	1.81	0.46
2:E:385:THR:HG23	2:E:388:GLU:H	1.79	0.46
2:G:113:ALA:HA	2:G:116:LEU:HD23	1.97	0.46
2:G:172:ASP:HA	2:G:175:VAL:CB	2.44	0.46
2:G:170:GLY:O	2:G:173:ILE:HG12	2.16	0.46
2:G:190:HIS:HB3	2:G:194:GLU:HB2	1.98	0.46
2:G:201:GLU:HB3	2:G:205:MET:CE	2.45	0.46
2:G:281:THR:CG2	2:G:282:PHE:H	2.18	0.46
2:A:160:ASN:C	2:A:160:ASN:HD22	2.17	0.46
2:A:24:ASP:O	2:A:25:GLU:O	2.33	0.46
2:C:146:LEU:O	2:C:147:GLY:C	2.53	0.46
2:C:170:GLY:HA2	2:C:173:ILE:HG12	1.97	0.46
2:C:202:MET:HA	2:C:205:MET:CB	2.46	0.46
2:C:205:MET:O	2:C:208:VAL:CG2	2.64	0.46
2:C:288:VAL:O	2:C:291:ILE:CD1	2.64	0.46
2:C:87:GLU:OE2	2:C:88:PRO:HD2	2.16	0.46
2:E:117:ALA:CB	2:E:129:LEU:HD21	2.46	0.46
2:E:139:ALA:HB3	2:E:140:TYR:CE1	2.50	0.46
2:E:190:HIS:HB3	2:E:194:GLU:HB2	1.98	0.46
2:E:219:ASP:CA	2:E:245:THR:OG1	2.64	0.46
2:E:334:ALA:HA	2:E:337:ILE:HD13	1.97	0.46
2:E:99:ILE:CG2	2:E:99:ILE:O	2.58	0.46
2:G:139:ALA:HB3	2:G:140:TYR:CE1	2.50	0.46
2:A:113:ALA:HA	2:A:116:LEU:HD23	1.96	0.46
2:A:117:ALA:CB	2:A:129:LEU:HD21	2.46	0.46
2:A:311:ASP:O	2:A:312:LYS:C	2.54	0.46
1:B:195:C:H42	1:B:210:G:H2'	1.81	0.46
1:B:199:C:H3'	1:B:199:C:OP2	2.16	0.46
2:C:161:GLN:O	2:C:162:ASN:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:173:ILE:O	2:C:174:PHE:C	2.54	0.46
2:C:190:HIS:HB3	2:C:194:GLU:HB2	1.98	0.46
2:C:209:LEU:HD13	2:C:211:PRO:HB3	1.97	0.46
2:C:259:ALA:O	2:C:260:VAL:O	2.34	0.46
2:C:274:GLU:O	2:C:278:GLU:HG3	2.16	0.46
2:C:63:VAL:O	2:C:64:LEU:CB	2.63	0.46
2:G:115:LYS:HA	2:G:118:TYR:CG	2.50	0.46
2:G:166:ILE:CG2	2:G:167:ALA:H	2.27	0.46
2:G:243:ILE:HG21	2:G:269:PHE:HB2	1.97	0.46
2:G:274:GLU:O	2:G:278:GLU:HG3	2.16	0.46
2:G:349:LEU:C	2:G:349:LEU:HD23	2.36	0.46
2:G:403:ILE:O	2:G:407:SER:N	2.41	0.46
1:H:211:C:O4'	2:G:406:GLY:HA3	2.15	0.46
2:G:40:ASN:O	2:G:43:LEU:HD11	2.16	0.46
1:H:186:G:N3	1:H:219:C:N3	2.64	0.46
2:A:140:TYR:C	2:A:143:LEU:HG	2.36	0.46
2:A:173:ILE:O	2:A:174:PHE:C	2.54	0.46
2:A:209:LEU:HD23	2:A:209:LEU:C	2.36	0.46
2:A:78:LEU:HB2	2:A:288:VAL:HG11	1.98	0.46
2:A:328:THR:CG2	2:A:329:LEU:HD12	2.40	0.46
2:A:378:LEU:HD23	2:A:382:ASN:OD1	2.16	0.46
2:A:381:LEU:O	2:A:384:MET:N	2.49	0.46
2:A:417:LEU:CB	2:A:421:TYR:OH	2.51	0.46
2:A:428:LEU:O	2:A:430:MET:N	2.49	0.46
1:B:179:GTP:C2	1:B:180:G:H5''	2.51	0.46
2:C:166:ILE:HA	2:C:169:LYS:HD2	1.98	0.46
2:C:176:LYS:CE	2:E:141:ASP:HB3	2.46	0.46
2:C:201:GLU:HB3	2:C:205:MET:CE	2.45	0.46
2:C:219:ASP:CA	2:C:245:THR:OG1	2.64	0.46
2:C:238:PRO:C	2:C:240:GLY:H	2.18	0.46
2:C:115:LYS:HD2	2:C:279:LEU:HB2	1.96	0.46
2:C:349:LEU:HD23	2:C:349:LEU:C	2.36	0.46
2:C:425:ASN:CG	2:C:426:ARG:H	2.18	0.46
2:C:428:LEU:O	2:C:430:MET:N	2.49	0.46
2:E:119:PHE:CE2	2:E:120:TYR:CE1	3.04	0.46
2:E:119:PHE:CE2	2:E:120:TYR:CZ	3.03	0.46
2:E:152:VAL:O	2:E:152:VAL:HG12	2.15	0.46
2:E:193:GLY:O	2:E:195:GLU:HG2	2.16	0.46
2:E:428:LEU:O	2:E:430:MET:N	2.49	0.46
2:E:55:LEU:CD2	2:E:55:LEU:N	2.73	0.46
1:F:186:G:N3	1:F:219:C:N3	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:166:ILE:HA	2:G:169:LYS:HD2	1.98	0.46
2:G:175:VAL:C	2:G:178:LYS:H	2.18	0.46
2:G:209:LEU:HD22	2:G:210:LYS:C	2.36	0.46
1:H:179:GTP:C2	1:H:180:G:H5''	2.51	0.46
1:H:199:C:OP2	1:H:199:C:H3'	2.16	0.46
2:A:217:VAL:C	2:A:218:ILE:HD13	2.36	0.45
2:A:270:ILE:HG23	2:A:271:GLY:N	2.31	0.45
1:B:211:C:H2'	1:B:212:A:O5'	2.16	0.45
1:B:186:G:N3	1:B:219:C:N3	2.64	0.45
2:C:108:GLY:O	2:C:112:THR:HG23	2.15	0.45
2:C:127:VAL:HG23	2:C:128:GLY:N	2.30	0.45
2:C:223:GLY:HA2	2:C:256:ALA:CB	2.46	0.45
2:C:378:LEU:HD23	2:C:382:ASN:OD1	2.16	0.45
2:C:381:LEU:HD23	2:C:381:LEU:H	1.81	0.45
2:C:5:ILE:O	2:C:7:ASP:N	2.49	0.45
2:C:99:ILE:HG22	2:C:183:ILE:HA	1.98	0.45
1:D:199:C:OP2	1:D:199:C:H3'	2.16	0.45
2:E:140:TYR:HA	2:E:143:LEU:CG	2.46	0.45
2:E:170:GLY:O	2:E:173:ILE:HG12	2.16	0.45
2:G:110:THR:O	2:G:112:THR:OG1	2.33	0.45
2:G:173:ILE:O	2:G:174:PHE:C	2.54	0.45
2:G:378:LEU:HD23	2:G:382:ASN:OD1	2.16	0.45
2:G:380:ALA:C	2:G:383:SER:H	2.20	0.45
2:G:426:ARG:HA	2:G:429:LYS:CD	2.41	0.45
2:G:65:GLU:CD	2:G:65:GLU:N	2.69	0.45
2:A:106:GLY:HA2	2:A:109:LYS:CG	2.45	0.45
2:A:115:LYS:HA	2:A:118:TYR:CG	2.50	0.45
2:A:119:PHE:CE2	2:A:120:TYR:CZ	3.03	0.45
2:A:119:PHE:CE2	2:A:120:TYR:CE1	3.04	0.45
2:A:288:VAL:O	2:A:291:ILE:CD1	2.64	0.45
2:A:331:ASP:HA	2:A:334:ALA:HB2	1.96	0.45
2:A:349:LEU:HD23	2:A:349:LEU:C	2.36	0.45
2:A:380:ALA:C	2:A:383:SER:H	2.20	0.45
1:B:214:C:C2'	1:B:215:C:C5'	2.89	0.45
2:C:106:GLY:HA2	2:C:109:LYS:HE2	1.97	0.45
2:C:168:LYS:O	2:C:169:LYS:O	2.34	0.45
2:C:180:ASP:HB3	2:C:181:ILE:HD12	1.97	0.45
2:C:340:ARG:HD3	2:C:375:ARG:HE	1.81	0.45
2:C:432:LYS:O	2:C:432:LYS:HG2	2.17	0.45
2:C:56:ASN:C	2:C:57:LYS:HG3	2.36	0.45
2:E:166:ILE:HA	2:E:169:LYS:HD2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:209:LEU:HD22	2:E:210:LYS:C	2.36	0.45
2:E:217:VAL:C	2:E:218:ILE:HD13	2.36	0.45
2:E:65:GLU:CD	2:E:65:GLU:N	2.69	0.45
2:G:109:LYS:CB	2:G:109:LYS:HZ3	2.28	0.45
2:G:117:ALA:CB	2:G:129:LEU:HD21	2.46	0.45
2:G:119:PHE:CE2	2:G:120:TYR:CE1	3.04	0.45
2:G:23:VAL:HG13	2:G:70:PHE:CZ	2.50	0.45
2:G:70:PHE:O	2:G:73:ILE:CB	2.64	0.45
2:A:129:LEU:HD11	2:A:152:VAL:CG1	2.47	0.45
2:A:139:ALA:HB3	2:A:140:TYR:CE1	2.50	0.45
2:A:146:LEU:O	2:A:147:GLY:C	2.53	0.45
2:A:20:GLU:O	2:A:23:VAL:CB	2.59	0.45
2:A:24:ASP:O	2:A:27:ILE:CB	2.63	0.45
2:A:223:GLY:HA2	2:A:256:ALA:HA	1.99	0.45
2:A:115:LYS:HZ1	2:A:278:GLU:HB2	1.76	0.45
2:A:373:LYS:HA	2:A:376:ARG:CG	2.42	0.45
2:A:44:VAL:O	2:A:47:LEU:N	2.50	0.45
2:C:116:LEU:CG	2:C:117:ALA:N	2.77	0.45
2:C:119:PHE:CE2	2:C:120:TYR:CE1	3.04	0.45
2:C:243:ILE:HG21	2:C:269:PHE:HB2	1.97	0.45
2:C:299:SER:C	2:C:301:LEU:N	2.68	0.45
2:C:331:ASP:HA	2:C:334:ALA:HB2	1.96	0.45
2:C:367:LEU:O	2:C:368:LYS:CB	2.65	0.45
2:C:380:ALA:C	2:C:383:SER:H	2.20	0.45
2:C:40:ASN:O	2:C:43:LEU:HD11	2.16	0.45
1:D:211:C:H2'	1:D:212:A:O5'	2.16	0.45
2:E:140:TYR:C	2:E:143:LEU:HG	2.36	0.45
2:E:173:ILE:O	2:E:174:PHE:C	2.54	0.45
2:E:217:VAL:O	2:E:218:ILE:CG2	2.64	0.45
2:E:223:GLY:HA2	2:E:256:ALA:CB	2.46	0.45
2:E:316:LYS:NZ	2:E:316:LYS:CB	2.79	0.45
2:E:93:THR:HB	2:E:97:PHE:CZ	2.51	0.45
1:F:199:C:H3'	1:F:199:C:OP2	2.16	0.45
2:G:127:VAL:HG23	2:G:128:GLY:N	2.30	0.45
2:G:205:MET:O	2:G:208:VAL:CG2	2.64	0.45
2:G:206:TYR:C	2:G:206:TYR:CD1	2.88	0.45
2:G:288:VAL:O	2:G:291:ILE:CD1	2.64	0.45
2:G:367:LEU:O	2:G:368:LYS:CB	2.65	0.45
2:G:71:ILE:O	2:G:75:TYR:N	2.50	0.45
2:A:147:GLY:O	2:A:152:VAL:N	2.43	0.45
2:A:257:LEU:HA	2:A:260:VAL:CG2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:316:LYS:NZ	2:A:316:LYS:CB	2.79	0.45
2:A:372:GLU:C	2:A:374:ILE:H	2.20	0.45
2:A:93:THR:HB	2:A:97:PHE:CZ	2.51	0.45
2:C:169:LYS:O	2:C:173:ILE:HD13	2.16	0.45
2:C:24:ASP:O	2:C:27:ILE:CB	2.63	0.45
2:C:316:LYS:NZ	2:C:316:LYS:CB	2.79	0.45
2:C:2:LEU:HD23	2:C:3:GLU:H	1.80	0.45
2:C:426:ARG:HA	2:C:429:LYS:CD	2.41	0.45
2:C:65:GLU:CD	2:C:65:GLU:N	2.69	0.45
2:C:71:ILE:O	2:C:75:TYR:N	2.50	0.45
2:E:24:ASP:O	2:E:25:GLU:O	2.33	0.45
2:E:339:LEU:HA	2:E:342:MET:HE3	1.98	0.45
2:E:378:LEU:HD23	2:E:382:ASN:OD1	2.16	0.45
2:E:417:LEU:CB	2:E:421:TYR:OH	2.51	0.45
2:E:94:LYS:H	2:E:97:PHE:HE1	1.65	0.45
2:G:106:GLY:HA2	2:G:109:LYS:CG	2.45	0.45
2:G:106:GLY:HA2	2:G:109:LYS:HE2	1.97	0.45
2:G:146:LEU:O	2:G:147:GLY:C	2.53	0.45
2:G:299:SER:C	2:G:301:LEU:N	2.68	0.45
2:G:299:SER:O	2:G:301:LEU:N	2.50	0.45
2:G:340:ARG:HD3	2:G:375:ARG:HE	1.81	0.45
1:H:216:G:C2'	1:H:217:U:H5''	2.43	0.45
2:A:170:GLY:O	2:A:173:ILE:HG12	2.16	0.45
2:A:205:MET:O	2:A:208:VAL:CG2	2.64	0.45
2:A:192:TYR:CE1	2:A:222:ILE:HD12	2.52	0.45
2:A:224:GLN:HA	2:A:259:ALA:CB	2.45	0.45
2:A:328:THR:C	2:A:330:ARG:N	2.68	0.45
2:A:52:LYS:CA	2:A:55:LEU:HD23	2.47	0.45
2:A:60:PRO:HA	2:A:69:TRP:CZ3	2.52	0.45
2:A:98:ILE:HD12	2:A:211:PRO:HA	1.98	0.45
2:C:110:THR:O	2:C:112:THR:OG1	2.33	0.45
2:C:98:ILE:HG21	2:C:211:PRO:CA	2.47	0.45
2:C:24:ASP:O	2:C:25:GLU:O	2.33	0.45
2:C:78:LEU:HB2	2:C:288:VAL:HG11	1.98	0.45
2:C:94:LYS:H	2:C:97:PHE:HE1	1.65	0.45
2:E:243:ILE:HG21	2:E:269:PHE:HB2	1.97	0.45
2:G:140:TYR:C	2:G:143:LEU:HG	2.36	0.45
2:G:219:ASP:CA	2:G:245:THR:OG1	2.64	0.45
2:G:311:ASP:O	2:G:312:LYS:C	2.54	0.45
2:G:354:GLY:HA2	2:G:368:LYS:CG	2.44	0.45
2:G:428:LEU:CD1	2:G:429:LYS:N	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:430:MET:HA	2:G:430:MET:CE	2.30	0.45
2:G:93:THR:HB	2:G:97:PHE:CZ	2.51	0.45
1:H:195:C:H42	1:H:210:G:H2'	1.81	0.45
2:A:140:TYR:HA	2:A:143:LEU:CG	2.46	0.45
2:A:259:ALA:O	2:A:260:VAL:O	2.34	0.45
2:A:260:VAL:HB	2:A:261:VAL:H	1.58	0.45
2:A:368:LYS:HB3	2:A:369:ILE:H	1.38	0.45
2:A:5:ILE:O	2:A:7:ASP:N	2.49	0.45
2:A:87:GLU:OE2	2:A:88:PRO:HD2	2.16	0.45
2:C:208:VAL:HG23	2:C:209:LEU:N	2.31	0.45
2:C:257:LEU:HA	2:C:260:VAL:CG2	2.47	0.45
2:C:359:LEU:CB	2:C:360:PRO:CD	2.87	0.45
2:C:372:GLU:C	2:C:374:ILE:H	2.20	0.45
2:C:71:ILE:C	2:C:74:VAL:HG22	2.37	0.45
1:D:179:GTP:C2	1:D:180:G:H5''	2.51	0.45
1:D:186:G:N3	1:D:219:C:N3	2.64	0.45
2:E:168:LYS:O	2:E:169:LYS:O	2.34	0.45
2:E:257:LEU:HA	2:E:260:VAL:CG2	2.47	0.45
2:E:270:ILE:HG23	2:E:271:GLY:N	2.31	0.45
2:E:281:THR:O	2:E:282:PHE:HB2	2.17	0.45
2:E:2:LEU:HD23	2:E:3:GLU:H	1.80	0.45
2:E:340:ARG:HD3	2:E:375:ARG:HE	1.81	0.45
2:E:400:MET:HA	2:E:403:ILE:HD12	1.99	0.45
2:E:428:LEU:CD1	2:E:429:LYS:N	2.80	0.45
2:E:60:PRO:HA	2:E:69:TRP:CZ3	2.52	0.45
2:E:87:GLU:OE2	2:E:88:PRO:HD2	2.16	0.45
2:E:91:ASN:HB3	2:E:92:PRO:CD	2.35	0.45
2:G:123:ARG:NH1	2:G:123:ARG:CG	2.76	0.45
2:G:217:VAL:C	2:G:218:ILE:HD13	2.36	0.45
2:G:78:LEU:HB2	2:G:288:VAL:HG11	1.98	0.45
2:G:333:TYR:CD1	2:G:381:LEU:CD1	3.00	0.45
2:G:428:LEU:C	2:G:430:MET:H	2.20	0.45
2:A:113:ALA:O	2:A:114:GLY:O	2.35	0.45
2:A:150:ILE:CG1	2:A:152:VAL:HB	2.47	0.45
2:A:161:GLN:O	2:A:162:ASN:HB2	2.15	0.45
2:A:182:ILE:C	2:A:183:ILE:HD12	2.35	0.45
2:A:209:LEU:HD13	2:A:211:PRO:CD	2.46	0.45
2:A:219:ASP:CA	2:A:245:THR:OG1	2.64	0.45
2:A:223:GLY:HA2	2:A:256:ALA:CB	2.46	0.45
2:A:25:GLU:O	2:A:29:ASP:N	2.37	0.45
2:A:32:LYS:C	2:A:34:LEU:H	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:193:GLY:O	2:C:195:GLU:HG2	2.16	0.45
2:C:225:LYS:O	2:C:226:ALA:C	2.55	0.45
2:C:243:ILE:HD12	2:C:269:PHE:CA	2.44	0.45
2:C:311:ASP:OD1	2:C:311:ASP:N	2.31	0.45
2:C:333:TYR:CD1	2:C:381:LEU:CD1	3.00	0.45
2:C:400:MET:HA	2:C:403:ILE:HD12	1.99	0.45
2:C:411:VAL:O	2:C:412:GLU:C	2.55	0.45
1:D:186:G:H1'	1:D:219:C:O2	2.16	0.45
2:E:113:ALA:O	2:E:114:GLY:O	2.35	0.45
2:E:260:VAL:HG12	2:E:267:ILE:HD11	1.99	0.45
2:E:274:GLU:O	2:E:278:GLU:HG3	2.16	0.45
2:E:333:TYR:CD1	2:E:381:LEU:CD1	3.00	0.45
2:E:349:LEU:HD23	2:E:349:LEU:C	2.36	0.45
2:E:372:GLU:C	2:E:374:ILE:H	2.20	0.45
2:E:411:VAL:O	2:E:412:GLU:C	2.55	0.45
2:G:307:LEU:O	2:G:310:TYR:HB2	2.17	0.45
2:G:417:LEU:CB	2:G:421:TYR:OH	2.51	0.45
2:G:99:ILE:HG22	2:G:183:ILE:HA	1.98	0.45
1:H:211:C:H2'	1:H:212:A:O5'	2.16	0.45
2:A:106:GLY:HA2	2:A:109:LYS:HE2	1.97	0.45
2:A:171:VAL:HB	2:A:172:ASP:H	1.41	0.45
2:A:299:SER:O	2:A:301:LEU:N	2.50	0.45
2:A:417:LEU:HB2	2:A:421:TYR:HH	1.77	0.45
2:A:428:LEU:CD1	2:A:429:LYS:N	2.80	0.45
2:A:432:LYS:O	2:A:432:LYS:HG2	2.17	0.45
2:C:115:LYS:HD2	2:C:279:LEU:CB	2.47	0.45
2:C:117:ALA:CB	2:C:129:LEU:HD21	2.46	0.45
2:C:129:LEU:N	2:C:129:LEU:CD1	2.73	0.45
2:C:270:ILE:HG23	2:C:271:GLY:N	2.31	0.45
2:C:287:PHE:O	2:C:290:ARG:CB	2.62	0.45
1:D:198:G:C2'	1:D:199:C:O5'	2.65	0.45
2:E:169:LYS:O	2:E:173:ILE:HD13	2.16	0.45
2:E:180:ASP:HB3	2:E:181:ILE:HD12	1.97	0.45
2:E:196:THR:HA	2:E:199:LEU:HD11	1.99	0.45
2:E:44:VAL:O	2:E:47:LEU:N	2.50	0.45
2:E:56:ASN:C	2:E:57:LYS:HG3	2.36	0.45
2:G:161:GLN:O	2:G:162:ASN:HB2	2.15	0.45
2:G:192:TYR:CE1	2:G:222:ILE:HD12	2.52	0.45
2:G:32:LYS:C	2:G:34:LEU:H	2.20	0.45
2:G:334:ALA:HA	2:G:337:ILE:HD13	1.97	0.45
1:H:188:A:C2	2:G:399:ARG:HG2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:400:MET:HA	2:G:403:ILE:HD12	1.99	0.45
2:G:432:LYS:HG2	2:G:432:LYS:O	2.16	0.45
2:G:52:LYS:CA	2:G:55:LEU:HD23	2.47	0.45
2:A:115:LYS:HD2	2:A:279:LEU:CB	2.47	0.45
2:A:193:GLY:O	2:A:195:GLU:HG2	2.16	0.45
2:A:331:ASP:CA	2:A:334:ALA:HB3	2.45	0.45
1:B:208:G:H8	1:B:208:G:OP2	2.00	0.45
2:C:104:VAL:C	2:C:105:GLN:O	2.50	0.45
2:C:260:VAL:HG12	2:C:267:ILE:HD11	1.99	0.45
2:C:299:SER:O	2:C:301:LEU:N	2.50	0.45
2:C:316:LYS:HB3	2:C:316:LYS:NZ	2.32	0.45
1:D:188:A:C2	2:C:399:ARG:HG2	2.52	0.45
1:D:190:C:H4'	1:D:191:C:O2	2.17	0.45
2:E:129:LEU:HD11	2:E:152:VAL:CG1	2.47	0.45
2:E:205:MET:O	2:E:208:VAL:CG2	2.64	0.45
2:E:367:LEU:O	2:E:368:LYS:CB	2.64	0.45
2:E:374:ILE:CD1	2:E:375:ARG:N	2.73	0.45
2:E:417:LEU:C	2:E:419:GLU:OE1	2.56	0.45
2:E:99:ILE:HG22	2:E:183:ILE:HA	1.98	0.45
1:F:208:G:H8	1:F:208:G:OP2	2.00	0.45
2:G:115:LYS:HD2	2:G:279:LEU:CB	2.47	0.45
2:G:126:LYS:HG2	2:G:180:ASP:OD2	2.17	0.45
2:G:129:LEU:HD11	2:G:152:VAL:CG1	2.47	0.45
2:G:193:GLY:O	2:G:195:GLU:HG2	2.16	0.45
2:G:196:THR:HA	2:G:199:LEU:HD11	1.99	0.45
2:G:253:GLY:O	2:G:256:ALA:N	2.45	0.45
2:G:373:LYS:O	2:G:376:ARG:CB	2.60	0.45
2:G:87:GLU:OE2	2:G:88:PRO:HD2	2.16	0.45
2:A:281:THR:O	2:A:282:PHE:HB2	2.17	0.45
2:A:2:LEU:HD23	2:A:3:GLU:H	1.80	0.45
2:A:340:ARG:HD3	2:A:375:ARG:HE	1.81	0.45
2:A:346:SER:C	2:A:348:VAL:N	2.70	0.45
2:A:336:ILE:CG2	2:A:378:LEU:HD12	2.46	0.45
2:C:126:LYS:HG2	2:C:180:ASP:OD2	2.17	0.45
2:C:126:LYS:HG2	2:C:180:ASP:OD1	2.16	0.45
2:C:193:GLY:C	2:C:195:GLU:HG2	2.38	0.45
2:C:207:ASP:C	2:C:210:LYS:HZ2	2.20	0.45
2:C:243:ILE:CG2	2:C:269:PHE:C	2.81	0.45
2:C:63:VAL:HA	2:C:351:HIS:CG	2.52	0.45
2:C:93:THR:HB	2:C:97:PHE:CZ	2.51	0.45
2:E:221:SER:N	2:E:250:THR:HG21	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:288:VAL:O	2:E:291:ILE:CD1	2.64	0.45
2:E:297:ILE:CD1	2:E:298:GLU:N	2.75	0.45
2:E:299:SER:O	2:E:301:LEU:N	2.50	0.45
2:E:394:ILE:H	2:E:395:ILE:CD1	2.12	0.45
2:E:40:ASN:O	2:E:43:LEU:HD11	2.16	0.45
2:E:52:LYS:CA	2:E:55:LEU:HD23	2.47	0.45
2:E:54:ARG:HA	2:E:58:GLU:OE2	2.17	0.45
2:E:71:ILE:C	2:E:74:VAL:HG22	2.37	0.45
2:E:71:ILE:O	2:E:75:TYR:N	2.50	0.45
1:F:190:C:H4'	1:F:191:C:O2	2.17	0.45
1:F:195:C:H42	1:F:210:G:H2'	1.81	0.45
2:G:113:ALA:O	2:G:114:GLY:O	2.35	0.45
2:G:140:TYR:HA	2:G:143:LEU:CG	2.47	0.45
2:G:147:GLY:O	2:G:152:VAL:N	2.43	0.45
2:G:193:GLY:C	2:G:195:GLU:HG2	2.38	0.45
2:G:209:LEU:HD13	2:G:211:PRO:HB3	1.97	0.45
2:G:223:GLY:HA2	2:G:256:ALA:HA	1.99	0.45
2:G:23:VAL:O	2:G:24:ASP:C	2.55	0.45
2:G:331:ASP:HA	2:G:334:ALA:HB2	1.96	0.45
2:G:60:PRO:HA	2:G:69:TRP:CZ3	2.52	0.45
2:G:94:LYS:H	2:G:97:PHE:HE1	1.65	0.45
1:H:190:C:H4'	1:H:191:C:O2	2.17	0.45
2:A:101:LEU:HA	2:A:101:LEU:HD22	1.53	0.44
2:A:116:LEU:O	2:A:117:ALA:C	2.55	0.44
2:A:120:TYR:HA	2:A:123:ARG:HG2	1.99	0.44
2:A:12:PHE:O	2:A:14:THR:N	2.45	0.44
2:A:193:GLY:C	2:A:195:GLU:N	2.65	0.44
2:A:252:LYS:CD	2:A:252:LYS:H	2.26	0.44
2:A:56:ASN:C	2:A:57:LYS:HG3	2.36	0.44
2:A:65:GLU:N	2:A:65:GLU:CD	2.69	0.44
2:A:68:GLU:O	2:A:71:ILE:N	2.47	0.44
2:A:71:ILE:O	2:A:75:TYR:N	2.50	0.44
2:A:72:SER:O	2:A:76:ASP:N	2.37	0.44
2:C:192:TYR:CE1	2:C:222:ILE:HD12	2.52	0.44
2:C:255:GLY:O	2:C:256:ALA:O	2.36	0.44
2:C:44:VAL:O	2:C:47:LEU:N	2.50	0.44
2:C:52:LYS:HA	2:C:55:LEU:HD23	2.00	0.44
2:E:208:VAL:HG23	2:E:209:LEU:N	2.31	0.44
2:E:98:ILE:HG21	2:E:211:PRO:CA	2.47	0.44
1:F:186:G:H1'	1:F:219:C:O2	2.16	0.44
2:G:98:ILE:HD12	2:G:211:PRO:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:257:LEU:HA	2:G:260:VAL:CG2	2.47	0.44
2:G:243:ILE:CD1	2:G:268:LYS:HB2	2.38	0.44
2:G:381:LEU:H	2:G:381:LEU:HD23	1.81	0.44
1:H:202:G:C2	1:H:204:A:OP2	2.71	0.44
2:A:17:THR:HB	2:A:18:PRO:HD2	1.99	0.44
2:A:307:LEU:O	2:A:310:TYR:HB2	2.17	0.44
2:A:315:LYS:NZ	2:A:315:LYS:CB	2.76	0.44
2:A:336:ILE:HG22	2:A:337:ILE:N	2.32	0.44
2:A:31:GLN:C	2:A:34:LEU:HG	2.38	0.44
2:A:417:LEU:N	2:A:419:GLU:OE1	2.51	0.44
2:C:140:TYR:HA	2:C:143:LEU:CG	2.46	0.44
2:C:54:ARG:HA	2:C:58:GLU:OE2	2.17	0.44
2:C:52:LYS:CA	2:C:55:LEU:HD23	2.47	0.44
1:D:216:G:C2'	1:D:217:U:H5''	2.43	0.44
2:E:115:LYS:HD2	2:E:279:LEU:CB	2.47	0.44
2:E:116:LEU:O	2:E:117:ALA:C	2.55	0.44
2:E:150:ILE:CG1	2:E:152:VAL:HB	2.47	0.44
2:E:193:GLY:C	2:E:195:GLU:HG2	2.38	0.44
2:E:26:PHE:O	2:E:27:ILE:C	2.56	0.44
2:E:289:SER:O	2:E:292:LEU:N	2.51	0.44
2:E:432:LYS:HG2	2:E:432:LYS:O	2.17	0.44
1:F:188:A:C2	2:E:399:ARG:HG2	2.52	0.44
1:F:211:C:H2'	1:F:212:A:O5'	2.17	0.44
2:G:116:LEU:O	2:G:117:ALA:C	2.55	0.44
2:A:151:GLY:CA	2:G:151:GLY:CA	2.58	0.44
2:G:281:THR:O	2:G:282:PHE:HB2	2.17	0.44
2:G:302:GLU:O	2:G:305:LYS:HB3	2.17	0.44
2:G:364:GLU:HB3	2:G:365:ASP:H	1.58	0.44
2:G:373:LYS:HA	2:G:376:ARG:CG	2.41	0.44
2:G:59:LYS:O	2:G:69:TRP:CH2	2.71	0.44
1:H:198:G:C2'	1:H:199:C:O5'	2.65	0.44
2:A:109:LYS:CB	2:A:109:LYS:HZ3	2.29	0.44
2:A:196:THR:HA	2:A:199:LEU:HD11	1.99	0.44
1:B:188:A:C2	2:A:399:ARG:HA	2.52	0.44
2:A:54:ARG:HA	2:A:58:GLU:OE2	2.17	0.44
2:C:119:PHE:HE2	2:C:120:TYR:CE1	2.36	0.44
2:C:140:TYR:CD1	2:C:141:ASP:OD1	2.70	0.44
2:C:144:LEU:O	2:C:145:GLN:C	2.56	0.44
2:C:129:LEU:HD11	2:C:152:VAL:CG1	2.47	0.44
2:C:17:THR:HB	2:C:18:PRO:HD2	1.99	0.44
2:C:196:THR:HA	2:C:199:LEU:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:31:GLN:C	2:C:34:LEU:HG	2.38	0.44
1:D:202:G:C2	1:D:204:A:OP2	2.71	0.44
2:E:126:LYS:HG2	2:E:180:ASP:OD1	2.17	0.44
2:E:126:LYS:HG2	2:E:180:ASP:OD2	2.17	0.44
2:E:202:MET:HA	2:E:205:MET:CB	2.46	0.44
2:E:192:TYR:CE1	2:E:222:ILE:HD12	2.52	0.44
2:E:307:LEU:O	2:E:310:TYR:HB2	2.17	0.44
2:E:372:GLU:O	2:E:374:ILE:N	2.50	0.44
2:E:78:LEU:HB2	2:E:288:VAL:HG11	1.98	0.44
2:G:103:GLY:C	2:G:104:VAL:O	2.56	0.44
2:G:150:ILE:CG1	2:G:152:VAL:HB	2.47	0.44
2:G:202:MET:HA	2:G:205:MET:CB	2.46	0.44
2:G:221:SER:N	2:G:250:THR:HG21	2.33	0.44
2:G:31:GLN:C	2:G:34:LEU:HG	2.38	0.44
2:G:411:VAL:O	2:G:412:GLU:C	2.55	0.44
2:G:417:LEU:C	2:G:419:GLU:OE1	2.56	0.44
2:G:56:ASN:C	2:G:57:LYS:HG3	2.36	0.44
2:G:58:GLU:HB3	2:G:69:TRP:CZ2	2.53	0.44
2:G:72:SER:OG	2:G:73:ILE:HD13	2.17	0.44
1:H:208:G:OP2	1:H:208:G:H8	2.00	0.44
2:A:19:TYR:O	2:A:22:ALA:N	2.50	0.44
2:A:23:VAL:O	2:A:24:ASP:C	2.55	0.44
2:A:372:GLU:O	2:A:374:ILE:N	2.50	0.44
1:B:188:A:C2	2:A:399:ARG:HG2	2.52	0.44
2:A:428:LEU:C	2:A:430:MET:H	2.20	0.44
2:A:42:LYS:HG3	2:A:43:LEU:N	2.33	0.44
2:A:58:GLU:HB3	2:A:69:TRP:CZ2	2.53	0.44
2:A:71:ILE:C	2:A:74:VAL:HG22	2.37	0.44
2:C:118:TYR:CG	2:C:119:PHE:N	2.85	0.44
2:C:142:GLN:O	2:C:146:LEU:HD21	2.18	0.44
2:C:159:ASN:CB	2:G:161:GLN:O	2.65	0.44
2:C:32:LYS:C	2:C:34:LEU:H	2.20	0.44
2:C:428:LEU:CD1	2:C:429:LYS:N	2.80	0.44
2:C:428:LEU:C	2:C:430:MET:H	2.20	0.44
2:C:42:LYS:HG3	2:C:43:LEU:N	2.33	0.44
2:C:60:PRO:HA	2:C:69:TRP:CZ3	2.52	0.44
2:E:109:LYS:HE3	2:E:187:ALA:HB2	2.00	0.44
2:E:116:LEU:HD12	2:E:116:LEU:C	2.38	0.44
2:E:209:LEU:HD13	2:E:211:PRO:CD	2.46	0.44
2:E:255:GLY:O	2:E:256:ALA:O	2.36	0.44
2:E:356:GLY:HA2	2:E:424:MET:HE1	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:426:ARG:NH1	2:E:426:ARG:HG2	2.33	0.44
1:F:188:A:C2	2:E:399:ARG:HA	2.52	0.44
2:G:119:PHE:HE2	2:G:120:TYR:CE1	2.36	0.44
2:G:142:GLN:O	2:G:146:LEU:HD21	2.18	0.44
2:G:169:LYS:O	2:G:173:ILE:HD13	2.16	0.44
2:G:346:SER:C	2:G:348:VAL:N	2.70	0.44
2:G:372:GLU:C	2:G:374:ILE:H	2.20	0.44
2:G:426:ARG:NH1	2:G:426:ARG:HG2	2.33	0.44
2:G:44:VAL:O	2:G:47:LEU:N	2.50	0.44
2:G:98:ILE:HG21	2:G:211:PRO:CA	2.47	0.44
2:A:164:ILE:O	2:A:167:ALA:N	2.51	0.44
2:A:126:LYS:HG2	2:A:180:ASP:OD1	2.16	0.44
2:A:333:TYR:CD1	2:A:381:LEU:CD1	3.00	0.44
2:A:333:TYR:O	2:A:336:ILE:CG1	2.66	0.44
2:A:400:MET:HA	2:A:403:ILE:HD12	1.99	0.44
2:A:417:LEU:C	2:A:419:GLU:OE1	2.56	0.44
2:A:426:ARG:NH1	2:A:426:ARG:HG2	2.33	0.44
2:A:47:LEU:C	2:A:49:ALA:N	2.70	0.44
1:B:198:G:C2'	1:B:199:C:O5'	2.65	0.44
2:C:147:GLY:O	2:C:152:VAL:O	2.36	0.44
2:C:150:ILE:CG1	2:C:152:VAL:HB	2.47	0.44
2:C:202:MET:HA	2:C:205:MET:CG	2.48	0.44
2:C:217:VAL:O	2:C:218:ILE:CG2	2.64	0.44
2:C:221:SER:N	2:C:250:THR:HG21	2.32	0.44
2:C:289:SER:O	2:C:293:GLY:N	2.51	0.44
2:C:302:GLU:O	2:C:305:LYS:HB3	2.18	0.44
2:C:307:LEU:O	2:C:310:TYR:HB2	2.17	0.44
2:C:417:LEU:C	2:C:419:GLU:OE1	2.56	0.44
1:D:195:C:H42	1:D:210:G:H2'	1.81	0.44
1:D:208:G:H8	1:D:208:G:OP2	2.00	0.44
2:E:12:PHE:O	2:E:14:THR:N	2.45	0.44
2:E:333:TYR:HA	2:E:336:ILE:HG12	2.00	0.44
2:E:399:ARG:CG	2:E:399:ARG:NH1	2.80	0.44
2:E:428:LEU:C	2:E:430:MET:H	2.20	0.44
2:G:147:GLY:O	2:G:152:VAL:O	2.36	0.44
2:G:198:LEU:O	2:G:201:GLU:N	2.50	0.44
2:G:259:ALA:O	2:G:260:VAL:O	2.34	0.44
2:G:289:SER:O	2:G:293:GLY:N	2.51	0.44
2:G:300:ILE:HB	2:G:342:MET:HA	1.99	0.44
2:G:417:LEU:N	2:G:419:GLU:OE1	2.51	0.44
2:G:41:VAL:HA	2:G:44:VAL:HG21	1.96	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:109:LYS:HE3	2:A:187:ALA:HB2	2.00	0.44
2:A:140:TYR:O	2:A:143:LEU:CG	2.65	0.44
2:A:144:LEU:O	2:A:145:GLN:C	2.56	0.44
2:A:316:LYS:NZ	2:A:316:LYS:HB3	2.32	0.44
2:A:63:VAL:HA	2:A:351:HIS:CG	2.52	0.44
2:A:354:GLY:HA2	2:A:368:LYS:CG	2.44	0.44
2:A:418:LEU:HA	2:A:421:TYR:CE2	2.53	0.44
1:B:202:G:C2	1:B:204:A:OP2	2.71	0.44
1:B:225:CCC:O3'	1:B:225:CCC:OP2	2.36	0.44
2:C:113:ALA:O	2:C:114:GLY:O	2.35	0.44
2:C:115:LYS:O	2:C:118:TYR:HD2	2.00	0.44
2:C:281:THR:O	2:C:282:PHE:HB2	2.17	0.44
2:C:287:PHE:CE1	2:C:291:ILE:HG23	2.53	0.44
2:C:333:TYR:O	2:C:336:ILE:CG1	2.66	0.44
2:C:372:GLU:O	2:C:374:ILE:N	2.50	0.44
2:C:43:LEU:O	2:C:44:VAL:C	2.55	0.44
2:C:59:LYS:O	2:C:69:TRP:CH2	2.71	0.44
2:C:68:GLU:O	2:C:71:ILE:N	2.47	0.44
1:D:188:A:C2	2:C:399:ARG:HA	2.52	0.44
2:E:287:PHE:CE1	2:E:291:ILE:HG23	2.53	0.44
2:E:287:PHE:O	2:E:290:ARG:CB	2.62	0.44
2:E:302:GLU:O	2:E:305:LYS:HB3	2.18	0.44
2:E:336:ILE:HG22	2:E:337:ILE:N	2.32	0.44
2:E:417:LEU:N	2:E:419:GLU:OE1	2.51	0.44
2:E:59:LYS:O	2:E:69:TRP:CH2	2.71	0.44
1:F:179:GTP:C2	1:F:180:G:H5''	2.51	0.44
2:G:115:LYS:O	2:G:118:TYR:HD2	2.00	0.44
2:G:144:LEU:O	2:G:145:GLN:C	2.56	0.44
2:G:223:GLY:HA2	2:G:256:ALA:CB	2.46	0.44
1:H:188:A:C2	2:G:399:ARG:HA	2.52	0.44
2:G:418:LEU:HA	2:G:421:TYR:CE2	2.53	0.44
2:A:115:LYS:O	2:A:118:TYR:HD2	2.00	0.44
2:A:126:LYS:HG2	2:A:180:ASP:OD2	2.17	0.44
2:A:225:LYS:O	2:A:226:ALA:C	2.55	0.44
2:A:26:PHE:O	2:A:27:ILE:C	2.56	0.44
2:A:367:LEU:O	2:A:368:LYS:CB	2.65	0.44
2:A:411:VAL:O	2:A:412:GLU:C	2.55	0.44
2:A:60:PRO:HG3	2:A:66:ARG:HA	1.99	0.44
2:C:116:LEU:C	2:C:116:LEU:HD12	2.38	0.44
2:C:98:ILE:HD12	2:C:211:PRO:HA	1.99	0.44
2:E:101:LEU:HA	2:E:101:LEU:HD22	1.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:98:ILE:HD12	2:E:211:PRO:HA	1.98	0.44
2:E:225:LYS:O	2:E:226:ALA:C	2.55	0.44
2:E:333:TYR:O	2:E:336:ILE:CG1	2.66	0.44
2:E:60:PRO:HG3	2:E:66:ARG:HA	2.00	0.44
1:F:216:G:C2'	1:F:217:U:H5''	2.43	0.44
2:G:126:LYS:HG2	2:G:180:ASP:OD1	2.17	0.44
2:G:204:GLU:O	2:G:208:VAL:CG2	2.58	0.44
2:G:287:PHE:O	2:G:290:ARG:CA	2.66	0.44
2:G:333:TYR:O	2:G:336:ILE:CG1	2.66	0.44
2:G:47:LEU:C	2:G:49:ALA:N	2.70	0.44
2:A:103:GLY:C	2:A:104:VAL:O	2.56	0.44
2:A:147:GLY:O	2:A:152:VAL:O	2.36	0.44
2:A:202:MET:HA	2:A:205:MET:CG	2.48	0.44
2:A:268:LYS:C	2:A:282:PHE:HB3	2.38	0.44
2:A:274:GLU:O	2:A:278:GLU:HG3	2.16	0.44
2:A:287:PHE:O	2:A:290:ARG:CA	2.66	0.44
2:A:43:LEU:O	2:A:44:VAL:C	2.56	0.44
2:A:72:SER:OG	2:A:73:ILE:HD13	2.17	0.44
2:C:115:LYS:CA	2:C:118:TYR:CD2	3.00	0.44
2:C:268:LYS:C	2:C:282:PHE:HB3	2.38	0.44
2:C:26:PHE:O	2:C:27:ILE:C	2.56	0.44
2:C:336:ILE:HG22	2:C:337:ILE:N	2.32	0.44
2:C:426:ARG:HG2	2:C:426:ARG:NH1	2.33	0.44
2:E:171:VAL:C	2:E:173:ILE:N	2.71	0.44
2:E:316:LYS:NZ	2:E:316:LYS:HB3	2.32	0.44
2:E:354:GLY:HA2	2:E:368:LYS:CG	2.44	0.44
2:G:182:ILE:HD12	2:G:182:ILE:N	2.33	0.44
2:G:224:GLN:HA	2:G:259:ALA:CB	2.46	0.44
2:G:260:VAL:HG12	2:G:265:ALA:CB	2.48	0.44
2:G:289:SER:O	2:G:292:LEU:N	2.51	0.44
2:G:326:LYS:HB3	2:G:327:LEU:CD1	2.48	0.44
2:G:336:ILE:HG22	2:G:337:ILE:N	2.32	0.44
2:G:60:PRO:HG3	2:G:66:ARG:HA	2.00	0.44
2:A:289:SER:O	2:A:292:LEU:N	2.51	0.44
2:A:289:SER:O	2:A:293:GLY:N	2.51	0.44
2:A:28:LYS:HA	2:A:31:GLN:CB	2.47	0.44
2:A:297:ILE:O	2:A:301:LEU:N	2.22	0.44
2:A:339:LEU:HD23	2:A:342:MET:CE	2.47	0.44
2:A:94:LYS:H	2:A:97:PHE:HE1	1.65	0.44
1:B:190:C:H4'	1:B:191:C:O2	2.17	0.44
2:C:195:GLU:O	2:C:197:LYS:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:423:ASN:C	2:C:425:ASN:ND2	2.71	0.44
2:C:72:SER:OG	2:C:73:ILE:HD13	2.17	0.44
1:D:225:CCC:OP2	1:D:225:CCC:O3'	2.36	0.44
2:E:109:LYS:HZ3	2:E:109:LYS:CB	2.30	0.44
2:E:164:ILE:O	2:E:167:ALA:N	2.51	0.44
2:E:260:VAL:HB	2:E:261:VAL:H	1.58	0.44
2:E:32:LYS:C	2:E:34:LEU:H	2.20	0.44
2:E:300:ILE:HB	2:E:342:MET:HA	2.00	0.44
2:E:42:LYS:HG3	2:E:43:LEU:N	2.33	0.44
2:E:52:LYS:HA	2:E:55:LEU:HD23	2.00	0.44
2:E:72:SER:OG	2:E:73:ILE:HD13	2.17	0.44
1:F:202:G:C2	1:F:204:A:OP2	2.71	0.44
2:G:118:TYR:CG	2:G:119:PHE:N	2.85	0.44
2:G:195:GLU:O	2:G:197:LYS:N	2.51	0.44
2:G:255:GLY:O	2:G:256:ALA:O	2.36	0.44
2:G:26:PHE:O	2:G:27:ILE:C	2.56	0.44
2:G:28:LYS:HA	2:G:31:GLN:CB	2.47	0.44
2:G:372:GLU:O	2:G:374:ILE:N	2.50	0.44
2:G:402:ARG:NH2	2:G:403:ILE:HG13	2.33	0.44
2:A:255:GLY:O	2:A:256:ALA:O	2.36	0.43
2:A:419:GLU:HB2	2:A:420:TRP:CE3	2.53	0.43
2:A:99:ILE:HG22	2:A:183:ILE:HA	1.98	0.43
2:C:216:LEU:CD2	2:C:218:ILE:HD12	2.48	0.43
2:C:260:VAL:HG12	2:C:265:ALA:CB	2.48	0.43
2:E:103:GLY:C	2:E:104:VAL:O	2.56	0.43
2:E:120:TYR:HA	2:E:123:ARG:HG2	1.98	0.43
2:E:142:GLN:O	2:E:146:LEU:HD21	2.18	0.43
2:E:100:MET:CE	2:E:206:TYR:HA	2.48	0.43
2:E:260:VAL:HG12	2:E:265:ALA:CB	2.48	0.43
2:E:31:GLN:C	2:E:34:LEU:HG	2.38	0.43
2:G:120:TYR:HA	2:G:123:ARG:HG2	1.98	0.43
2:G:17:THR:HB	2:G:18:PRO:HD2	1.99	0.43
2:G:18:PRO:HB2	2:G:19:TYR:H	1.53	0.43
2:G:188:GLY:HA3	2:G:201:GLU:OE1	2.18	0.43
2:G:209:LEU:HD13	2:G:211:PRO:CD	2.46	0.43
2:G:25:GLU:HB2	2:G:26:PHE:H	1.52	0.43
2:G:333:TYR:HA	2:G:336:ILE:HG12	2.00	0.43
2:G:415:ARG:O	2:G:417:LEU:N	2.47	0.43
2:G:425:ASN:ND2	2:G:426:ARG:N	2.61	0.43
2:A:182:ILE:N	2:A:182:ILE:HD12	2.33	0.43
2:A:302:GLU:O	2:A:305:LYS:HB3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:164:ILE:O	2:C:167:ALA:N	2.51	0.43
2:C:182:ILE:N	2:C:182:ILE:HD12	2.33	0.43
2:C:308:GLU:OE1	2:C:308:GLU:HA	2.18	0.43
2:C:70:PHE:C	2:C:74:VAL:HG13	2.39	0.43
2:E:144:LEU:O	2:E:145:GLN:C	2.56	0.43
2:E:147:GLY:O	2:E:152:VAL:O	2.36	0.43
2:E:202:MET:O	2:E:205:MET:HB2	2.18	0.43
2:E:418:LEU:HA	2:E:421:TYR:CE2	2.53	0.43
2:E:47:LEU:C	2:E:49:ALA:N	2.70	0.43
2:E:58:GLU:HB3	2:E:69:TRP:CZ2	2.53	0.43
2:E:72:SER:O	2:E:76:ASP:N	2.37	0.43
2:E:75:TYR:HA	2:E:78:LEU:CG	2.48	0.43
2:E:7:ASP:O	2:E:8:ALA:C	2.57	0.43
2:G:12:PHE:O	2:G:14:THR:N	2.45	0.43
2:G:225:LYS:O	2:G:226:ALA:C	2.55	0.43
2:G:315:LYS:NZ	2:G:315:LYS:CB	2.76	0.43
2:G:316:LYS:NZ	2:G:316:LYS:HB3	2.32	0.43
2:G:71:ILE:C	2:G:74:VAL:HG22	2.37	0.43
2:A:193:GLY:C	2:A:195:GLU:HG2	2.38	0.43
2:A:197:LYS:HA	2:A:200:GLU:CB	2.48	0.43
2:A:221:SER:N	2:A:250:THR:HG21	2.32	0.43
2:A:260:VAL:HG12	2:A:267:ILE:HD11	1.99	0.43
2:A:402:ARG:NH2	2:A:403:ILE:HG13	2.33	0.43
2:A:423:ASN:C	2:A:425:ASN:ND2	2.71	0.43
2:C:98:ILE:CG2	2:C:211:PRO:HA	2.48	0.43
2:C:252:LYS:N	2:C:252:LYS:CD	2.77	0.43
2:C:223:GLY:HA2	2:C:256:ALA:HA	1.99	0.43
2:C:288:VAL:O	2:C:291:ILE:N	2.50	0.43
2:C:287:PHE:O	2:C:290:ARG:CA	2.66	0.43
2:C:333:TYR:HA	2:C:336:ILE:HG12	2.00	0.43
2:C:410:GLU:O	2:C:413:GLU:CD	2.57	0.43
2:C:419:GLU:HB2	2:C:420:TRP:CE3	2.53	0.43
2:E:115:LYS:O	2:E:118:TYR:HD2	2.00	0.43
2:E:139:ALA:HB3	2:E:140:TYR:CD1	2.53	0.43
2:E:19:TYR:O	2:E:22:ALA:N	2.50	0.43
2:E:198:LEU:HA	2:E:201:GLU:OE1	2.18	0.43
2:E:223:GLY:HA2	2:E:256:ALA:HA	1.99	0.43
2:E:268:LYS:C	2:E:282:PHE:HB3	2.38	0.43
2:E:357:ILE:C	2:E:358:MET:SD	2.97	0.43
2:E:43:LEU:O	2:E:44:VAL:C	2.56	0.43
2:E:58:GLU:HB3	2:E:69:TRP:CH2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:100:MET:CE	2:G:206:TYR:HA	2.48	0.43
2:G:109:LYS:HE3	2:G:187:ALA:HB2	1.99	0.43
2:G:164:ILE:O	2:G:167:ALA:N	2.51	0.43
2:G:316:LYS:CB	2:G:316:LYS:NZ	2.79	0.43
2:G:63:VAL:HA	2:G:351:HIS:CG	2.52	0.43
2:G:42:LYS:HG3	2:G:43:LEU:N	2.32	0.43
2:G:43:LEU:O	2:G:44:VAL:C	2.56	0.43
2:A:119:PHE:HE2	2:A:120:TYR:CE1	2.36	0.43
2:A:188:GLY:HA3	2:A:201:GLU:OE1	2.19	0.43
2:A:115:LYS:CD	2:A:279:LEU:H	2.32	0.43
2:A:300:ILE:HB	2:A:342:MET:HA	2.00	0.43
2:C:137:PRO:HB2	2:C:138:ALA:H	1.68	0.43
2:C:289:SER:O	2:C:292:LEU:N	2.51	0.43
2:C:417:LEU:N	2:C:419:GLU:OE1	2.51	0.43
2:C:60:PRO:HG3	2:C:66:ARG:HA	2.00	0.43
2:E:119:PHE:HE2	2:E:120:TYR:CE1	2.36	0.43
2:E:183:ILE:CD1	2:E:183:ILE:N	2.69	0.43
2:E:202:MET:HA	2:E:205:MET:CG	2.48	0.43
2:E:333:TYR:HD1	2:E:381:LEU:CD1	2.32	0.43
2:E:410:GLU:O	2:E:413:GLU:CD	2.57	0.43
2:E:419:GLU:HB2	2:E:420:TRP:CE3	2.53	0.43
2:E:59:LYS:HZ2	2:E:61:PRO:N	2.16	0.43
2:E:95:LEU:HA	2:E:96:PRO:O	2.18	0.43
1:F:225:CCC:OP2	1:F:225:CCC:O3'	2.36	0.43
2:G:197:LYS:HA	2:G:200:GLU:CB	2.48	0.43
2:G:202:MET:HA	2:G:205:MET:CG	2.48	0.43
2:G:287:PHE:CE1	2:G:291:ILE:HG23	2.53	0.43
2:G:58:GLU:HB3	2:G:69:TRP:CH2	2.54	0.43
2:A:140:TYR:CD1	2:A:141:ASP:OD1	2.70	0.43
2:A:195:GLU:O	2:A:197:LYS:N	2.51	0.43
2:A:196:THR:OG1	2:A:232:ARG:NH1	2.52	0.43
2:A:287:PHE:CE1	2:A:291:ILE:HG23	2.53	0.43
2:A:410:GLU:O	2:A:413:GLU:CD	2.57	0.43
2:A:98:ILE:HG21	2:A:211:PRO:CA	2.47	0.43
2:C:130:VAL:HB	2:C:184:VAL:CG1	2.44	0.43
2:C:159:ASN:HB2	2:C:160:ASN:H	1.60	0.43
2:C:188:GLY:HA3	2:C:201:GLU:OE1	2.18	0.43
2:C:198:LEU:HA	2:C:201:GLU:OE1	2.18	0.43
2:C:308:GLU:O	2:C:309:GLU:HB2	2.19	0.43
2:C:47:LEU:C	2:C:49:ALA:N	2.70	0.43
2:C:64:LEU:HD23	2:C:65:GLU:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:7:ASP:O	2:C:8:ALA:C	2.57	0.43
2:C:95:LEU:HA	2:C:96:PRO:O	2.18	0.43
2:E:144:LEU:HD23	2:E:145:GLN:HG2	2.00	0.43
2:E:182:ILE:N	2:E:182:ILE:HD12	2.33	0.43
2:E:216:LEU:O	2:E:217:VAL:HG13	2.19	0.43
2:E:23:VAL:O	2:E:24:ASP:C	2.55	0.43
2:E:289:SER:O	2:E:293:GLY:N	2.51	0.43
2:E:287:PHE:O	2:E:290:ARG:CA	2.66	0.43
2:E:427:LEU:CD1	2:E:427:LEU:N	2.82	0.43
2:E:63:VAL:HA	2:E:351:HIS:CG	2.52	0.43
2:E:64:LEU:HD23	2:E:65:GLU:O	2.19	0.43
2:G:140:TYR:CD1	2:G:141:ASP:OD1	2.70	0.43
2:G:19:TYR:O	2:G:22:ALA:N	2.50	0.43
2:G:268:LYS:C	2:G:282:PHE:HB3	2.38	0.43
2:G:410:GLU:O	2:G:413:GLU:CD	2.57	0.43
2:G:75:TYR:HA	2:G:78:LEU:CG	2.48	0.43
2:A:201:GLU:C	2:A:205:MET:SD	2.97	0.43
2:A:216:LEU:CD2	2:A:218:ILE:HD12	2.48	0.43
2:A:376:ARG:NH2	2:A:376:ARG:CG	2.80	0.43
2:A:381:LEU:HD23	2:A:381:LEU:H	1.81	0.43
2:A:427:LEU:N	2:A:427:LEU:CD1	2.82	0.43
2:A:52:LYS:HA	2:A:55:LEU:HD23	1.99	0.43
2:C:109:LYS:HE3	2:C:187:ALA:HB2	2.00	0.43
2:C:114:GLY:C	2:C:116:LEU:N	2.71	0.43
2:C:139:ALA:HB3	2:C:140:TYR:CD1	2.54	0.43
2:C:18:PRO:HB2	2:C:19:TYR:H	1.54	0.43
2:C:202:MET:O	2:C:205:MET:HB2	2.18	0.43
2:C:333:TYR:HD1	2:C:381:LEU:CD1	2.32	0.43
2:C:58:GLU:HB3	2:C:69:TRP:CZ2	2.53	0.43
2:E:117:ALA:O	2:E:119:PHE:N	2.52	0.43
2:E:140:TYR:CD1	2:E:141:ASP:OD1	2.70	0.43
2:E:195:GLU:O	2:E:197:LYS:N	2.51	0.43
2:E:339:LEU:HD23	2:E:342:MET:CE	2.47	0.43
2:E:423:ASN:C	2:E:425:ASN:ND2	2.71	0.43
1:F:198:G:C2'	1:F:199:C:O5'	2.65	0.43
2:G:333:TYR:HD1	2:G:381:LEU:CD1	2.32	0.43
2:G:410:GLU:OE2	2:G:412:GLU:HG3	2.19	0.43
2:G:419:GLU:HB2	2:G:420:TRP:CE3	2.53	0.43
2:G:52:LYS:HA	2:G:55:LEU:HD23	1.99	0.43
2:A:100:MET:CE	2:A:206:TYR:HA	2.48	0.43
2:A:260:VAL:HG12	2:A:265:ALA:CB	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:410:GLU:OE2	2:A:412:GLU:HG3	2.19	0.43
2:A:59:LYS:O	2:A:69:TRP:CH2	2.71	0.43
2:C:117:ALA:O	2:C:119:PHE:N	2.52	0.43
2:C:198:LEU:O	2:C:201:GLU:N	2.50	0.43
2:C:100:MET:CE	2:C:206:TYR:HA	2.48	0.43
2:C:300:ILE:HB	2:C:342:MET:HA	2.00	0.43
2:E:197:LYS:HA	2:E:200:GLU:CB	2.48	0.43
2:E:18:PRO:HB2	2:E:19:TYR:H	1.53	0.43
2:E:216:LEU:CD2	2:E:218:ILE:HD12	2.48	0.43
2:E:115:LYS:CD	2:E:279:LEU:H	2.32	0.43
2:E:316:LYS:H	2:E:316:LYS:HG2	1.65	0.43
2:E:346:SER:C	2:E:348:VAL:N	2.70	0.43
2:E:81:LEU:C	2:E:81:LEU:CD1	2.86	0.43
2:G:208:VAL:N	2:G:210:LYS:NZ	2.67	0.43
2:G:339:LEU:HD23	2:G:342:MET:CE	2.47	0.43
2:G:70:PHE:C	2:G:74:VAL:HG13	2.39	0.43
1:H:225:CCC:O3'	1:H:225:CCC:OP2	2.36	0.43
2:A:116:LEU:HD12	2:A:116:LEU:C	2.38	0.43
2:A:129:LEU:N	2:A:129:LEU:CD1	2.73	0.43
2:A:142:GLN:O	2:A:146:LEU:HD21	2.18	0.43
2:A:284:ALA:O	2:A:288:VAL:N	2.49	0.43
2:A:303:LYS:O	2:A:304:VAL:C	2.57	0.43
2:A:357:ILE:C	2:A:358:MET:SD	2.97	0.43
2:A:417:LEU:CD1	2:A:421:TYR:HE2	2.30	0.43
2:A:58:GLU:HB3	2:A:69:TRP:CH2	2.54	0.43
1:B:220:C:H2'	1:B:220:C:O2	2.19	0.43
2:C:103:GLY:C	2:C:104:VAL:O	2.56	0.43
2:C:100:MET:HE1	2:C:205:MET:C	2.39	0.43
2:C:340:ARG:HH21	2:C:344:PRO:HA	1.83	0.43
2:C:54:ARG:O	2:C:57:LYS:N	2.52	0.43
2:C:75:TYR:HA	2:C:78:LEU:CG	2.48	0.43
2:E:118:TYR:CG	2:E:119:PHE:N	2.85	0.43
2:E:14:THR:O	2:E:67:LYS:NZ	2.51	0.43
2:E:176:LYS:O	2:E:178:LYS:NZ	2.51	0.43
2:E:17:THR:HB	2:E:18:PRO:HD2	1.99	0.43
2:E:201:GLU:C	2:E:205:MET:SD	2.97	0.43
2:E:188:GLY:HA3	2:E:201:GLU:OE1	2.18	0.43
2:E:340:ARG:HH21	2:E:344:PRO:HA	1.84	0.43
2:E:402:ARG:NH2	2:E:403:ILE:HG13	2.33	0.43
2:E:426:ARG:HA	2:E:429:LYS:CD	2.41	0.43
2:G:423:ASN:C	2:G:425:ASN:ND2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:117:ALA:O	2:A:119:PHE:N	2.52	0.43
2:A:144:LEU:HD23	2:A:145:GLN:HG2	2.00	0.43
2:A:426:ARG:HA	2:A:429:LYS:CD	2.41	0.43
2:C:197:LYS:HA	2:C:200:GLU:CB	2.48	0.43
2:C:201:GLU:C	2:C:205:MET:SD	2.97	0.43
2:C:209:LEU:HD13	2:C:211:PRO:CD	2.46	0.43
2:C:23:VAL:O	2:C:24:ASP:C	2.55	0.43
2:C:247:MET:SD	2:C:270:ILE:CG1	3.07	0.43
2:C:367:LEU:O	2:C:368:LYS:CE	2.67	0.43
2:C:402:ARG:NH2	2:C:403:ILE:HG13	2.33	0.43
2:C:418:LEU:HA	2:C:421:TYR:CE2	2.53	0.43
1:D:202:G:O5'	1:D:202:G:C8	2.72	0.43
2:E:201:GLU:C	2:E:203:LYS:N	2.72	0.43
2:E:303:LYS:O	2:E:304:VAL:C	2.57	0.43
2:E:315:LYS:NZ	2:E:315:LYS:CB	2.76	0.43
2:E:380:ALA:C	2:E:383:SER:H	2.20	0.43
2:G:216:LEU:CD2	2:G:218:ILE:HD12	2.48	0.43
2:G:303:LYS:O	2:G:304:VAL:C	2.57	0.43
2:G:357:ILE:C	2:G:358:MET:SD	2.97	0.43
2:G:402:ARG:O	2:G:406:GLY:CA	2.67	0.43
2:G:14:THR:O	2:G:67:LYS:NZ	2.51	0.43
2:G:95:LEU:HA	2:G:96:PRO:O	2.18	0.43
1:H:186:G:O2'	1:H:187:G:C8	2.59	0.43
2:A:130:VAL:HB	2:A:184:VAL:CG1	2.44	0.43
2:A:202:MET:HA	2:A:205:MET:CB	2.46	0.43
2:A:206:TYR:CD1	2:A:207:ASP:N	2.87	0.43
2:A:50:LYS:O	2:A:51:ILE:C	2.57	0.43
2:A:54:ARG:O	2:A:57:LYS:N	2.52	0.43
2:A:70:PHE:C	2:A:74:VAL:HG13	2.39	0.43
1:B:223:G:C2'	1:B:224:U:O5'	2.67	0.43
2:C:222:ILE:HD11	2:C:226:ALA:HA	2.01	0.43
2:C:50:LYS:O	2:C:51:ILE:C	2.57	0.43
2:E:247:MET:SD	2:E:270:ILE:CG1	3.07	0.43
2:E:70:PHE:C	2:E:74:VAL:HG13	2.39	0.43
1:F:223:G:C2'	1:F:224:U:O5'	2.67	0.43
2:G:201:GLU:C	2:G:203:LYS:N	2.72	0.43
2:G:54:ARG:HA	2:G:58:GLU:OE2	2.17	0.43
2:A:118:TYR:CG	2:A:119:PHE:N	2.85	0.42
2:A:198:LEU:HA	2:A:201:GLU:OE1	2.18	0.42
2:A:208:VAL:N	2:A:210:LYS:NZ	2.67	0.42
2:A:333:TYR:HD1	2:A:381:LEU:CD1	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:72:SER:O	2:A:76:ASP:CB	2.60	0.42
2:A:54:ARG:HH12	2:A:76:ASP:CG	2.23	0.42
2:A:75:TYR:HA	2:A:78:LEU:CG	2.48	0.42
2:C:116:LEU:O	2:C:117:ALA:C	2.55	0.42
2:C:140:TYR:HA	2:C:143:LEU:HD21	2.01	0.42
2:C:165:GLU:HB2	2:C:166:ILE:H	1.53	0.42
2:C:206:TYR:CD1	2:C:207:ASP:N	2.87	0.42
2:C:224:GLN:HA	2:C:259:ALA:CB	2.45	0.42
2:C:346:SER:C	2:C:348:VAL:N	2.70	0.42
1:D:214:C:C2'	1:D:215:C:C5'	2.89	0.42
1:D:223:G:C2'	1:D:224:U:O5'	2.67	0.42
2:E:222:ILE:HD11	2:E:226:ALA:HA	2.01	0.42
2:E:260:VAL:HG12	2:E:265:ALA:HB3	2.01	0.42
2:E:50:LYS:O	2:E:51:ILE:C	2.57	0.42
2:E:2:LEU:O	2:E:5:ILE:HG22	2.18	0.42
2:G:183:ILE:CD1	2:G:183:ILE:N	2.69	0.42
2:G:201:GLU:C	2:G:205:MET:SD	2.97	0.42
2:G:206:TYR:CD1	2:G:207:ASP:N	2.87	0.42
2:G:98:ILE:CG2	2:G:211:PRO:HA	2.48	0.42
2:G:196:THR:OG1	2:G:232:ARG:NH1	2.52	0.42
2:G:281:THR:CG2	2:G:282:PHE:N	2.82	0.42
2:G:2:LEU:O	2:G:5:ILE:HG22	2.19	0.42
2:A:154:VAL:CG1	2:A:155:TYR:N	2.73	0.42
2:A:159:ASN:HB2	2:A:160:ASN:H	1.60	0.42
2:A:367:LEU:O	2:A:368:LYS:CE	2.67	0.42
2:C:10:ARG:O	2:C:13:LEU:N	2.53	0.42
2:C:216:LEU:O	2:C:217:VAL:HG13	2.19	0.42
2:C:27:ILE:CA	2:C:30:LEU:HD23	2.48	0.42
2:C:354:GLY:HA2	2:C:368:LYS:CG	2.44	0.42
1:D:210:G:O2'	1:D:211:C:O5'	2.27	0.42
2:E:206:TYR:CD1	2:E:207:ASP:N	2.87	0.42
2:E:231:SER:O	2:E:234:HIS:N	2.52	0.42
2:E:24:ASP:O	2:E:27:ILE:CB	2.62	0.42
2:G:116:LEU:HD12	2:G:116:LEU:C	2.38	0.42
2:G:144:LEU:HD23	2:G:145:GLN:HG2	2.00	0.42
2:G:202:MET:O	2:G:205:MET:HB2	2.18	0.42
2:G:223:GLY:O	2:G:226:ALA:N	2.52	0.42
2:G:340:ARG:HH21	2:G:344:PRO:HA	1.84	0.42
2:G:376:ARG:NH2	2:G:376:ARG:CG	2.80	0.42
2:G:399:ARG:NH1	2:G:399:ARG:CG	2.80	0.42
1:H:195:C:N4	1:H:210:G:H3'	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:136:ARG:HH11	2:A:137:PRO:HG2	1.84	0.42
2:A:202:MET:O	2:A:205:MET:HB2	2.18	0.42
2:A:216:LEU:O	2:A:217:VAL:HG13	2.19	0.42
2:A:2:LEU:O	2:A:5:ILE:HG22	2.19	0.42
2:A:5:ILE:HD11	2:A:30:LEU:CB	2.50	0.42
2:A:340:ARG:HH21	2:A:344:PRO:HA	1.83	0.42
2:A:339:LEU:HA	2:A:342:MET:CE	2.49	0.42
2:A:399:ARG:CG	2:A:399:ARG:NH1	2.80	0.42
2:A:7:ASP:C	2:A:9:VAL:H	2.22	0.42
2:A:95:LEU:HA	2:A:96:PRO:O	2.18	0.42
2:C:204:GLU:O	2:C:208:VAL:CG2	2.58	0.42
2:C:339:LEU:HD23	2:C:342:MET:CE	2.47	0.42
2:C:357:ILE:C	2:C:358:MET:SD	2.97	0.42
2:C:374:ILE:CD1	2:C:375:ARG:N	2.73	0.42
2:C:39:VAL:HA	2:C:255:GLY:H	1.85	0.42
2:C:403:ILE:O	2:C:407:SER:N	2.41	0.42
2:C:427:LEU:CD1	2:C:427:LEU:N	2.82	0.42
2:C:2:LEU:O	2:C:5:ILE:HG22	2.18	0.42
2:C:70:PHE:O	2:C:73:ILE:CB	2.64	0.42
1:D:189:A:C8	1:D:189:A:OP2	2.73	0.42
2:E:105:GLN:C	2:E:106:GLY:O	2.58	0.42
2:E:140:TYR:HA	2:E:143:LEU:HD21	2.01	0.42
2:E:389:LEU:CD2	2:E:389:LEU:N	2.70	0.42
2:E:70:PHE:O	2:E:73:ILE:CB	2.64	0.42
2:E:54:ARG:HH12	2:E:76:ASP:CG	2.23	0.42
2:G:117:ALA:O	2:G:119:PHE:N	2.52	0.42
1:H:202:G:O5'	1:H:202:G:C8	2.72	0.42
2:A:171:VAL:C	2:A:173:ILE:N	2.71	0.42
2:A:339:LEU:CA	2:A:342:MET:HB3	2.45	0.42
2:A:377:TRP:O	2:A:381:LEU:HD21	2.20	0.42
2:A:405:GLU:HG3	2:A:406:GLY:N	2.35	0.42
2:A:40:ASN:HB3	2:A:43:LEU:HD11	2.01	0.42
2:C:136:ARG:HA	2:C:137:PRO:HD2	1.65	0.42
2:C:144:LEU:HD23	2:C:145:GLN:HG2	2.00	0.42
2:C:210:LYS:H	2:C:211:PRO:CD	2.33	0.42
2:C:196:THR:OG1	2:C:232:ARG:NH1	2.52	0.42
2:C:280:GLU:O	2:C:281:THR:O	2.37	0.42
2:C:377:TRP:O	2:C:381:LEU:HD21	2.20	0.42
2:E:114:GLY:C	2:E:116:LEU:N	2.71	0.42
2:E:100:MET:HE1	2:E:205:MET:C	2.39	0.42
2:E:280:GLU:O	2:E:281:THR:O	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:336:ILE:CG2	2:E:378:LEU:HD12	2.46	0.42
2:E:412:GLU:O	2:E:414:VAL:N	2.53	0.42
1:F:189:A:OP2	1:F:189:A:C8	2.73	0.42
2:G:105:GLN:C	2:G:106:GLY:O	2.58	0.42
2:G:198:LEU:HA	2:G:201:GLU:OE1	2.18	0.42
2:G:285:LYS:O	2:G:289:SER:N	2.53	0.42
2:G:328:THR:CG2	2:G:329:LEU:HD12	2.40	0.42
2:G:405:GLU:HG3	2:G:406:GLY:N	2.35	0.42
2:G:412:GLU:O	2:G:414:VAL:N	2.53	0.42
2:G:427:LEU:N	2:G:427:LEU:CD1	2.82	0.42
2:G:7:ASP:O	2:G:8:ALA:C	2.57	0.42
2:A:216:LEU:CG	2:A:217:VAL:N	2.83	0.42
2:A:217:VAL:O	2:A:218:ILE:CG2	2.64	0.42
2:A:219:ASP:OD2	2:A:220:ALA:N	2.53	0.42
2:A:223:GLY:O	2:A:226:ALA:N	2.52	0.42
2:A:247:MET:SD	2:A:270:ILE:CG1	3.07	0.42
2:A:280:GLU:O	2:A:281:THR:O	2.37	0.42
2:A:314:GLN:HB2	2:A:315:LYS:HE2	2.02	0.42
2:A:417:LEU:CD1	2:A:418:LEU:CD2	2.98	0.42
2:A:414:VAL:CG1	2:A:417:LEU:HD11	2.50	0.42
2:A:64:LEU:HD23	2:A:65:GLU:O	2.19	0.42
2:C:370:GLY:O	2:C:372:GLU:N	2.53	0.42
2:C:51:ILE:O	2:C:55:LEU:CD2	2.68	0.42
2:E:113:ALA:O	2:E:114:GLY:C	2.58	0.42
2:E:115:LYS:HA	2:E:118:TYR:HD2	1.81	0.42
2:E:123:ARG:NH1	2:E:123:ARG:CG	2.76	0.42
2:E:193:GLY:C	2:E:195:GLU:N	2.65	0.42
2:E:223:GLY:O	2:E:226:ALA:N	2.52	0.42
2:E:271:GLY:HA2	2:E:279:LEU:HA	1.97	0.42
2:E:54:ARG:O	2:E:57:LYS:N	2.52	0.42
1:F:202:G:O5'	1:F:202:G:C8	2.72	0.42
1:F:195:C:N4	1:F:210:G:H3'	2.35	0.42
2:G:181:ILE:N	2:G:181:ILE:HD12	2.34	0.42
2:G:219:ASP:OD2	2:G:220:ALA:N	2.53	0.42
2:G:341:LYS:O	2:G:343:GLY:N	2.45	0.42
2:G:370:GLY:O	2:G:372:GLU:N	2.53	0.42
2:G:377:TRP:O	2:G:381:LEU:HD21	2.20	0.42
2:G:417:LEU:CD1	2:G:418:LEU:CD2	2.98	0.42
2:G:64:LEU:HD23	2:G:65:GLU:O	2.18	0.42
2:G:54:ARG:HH12	2:G:76:ASP:CG	2.23	0.42
1:H:223:G:C2'	1:H:224:U:O5'	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:202:MET:O	2:A:203:LYS:C	2.57	0.42
2:A:118:TYR:CZ	2:A:277:ASP:HB3	2.55	0.42
2:A:295:GLY:CA	2:A:298:GLU:OE2	2.67	0.42
2:A:333:TYR:HA	2:A:336:ILE:HG12	2.00	0.42
2:A:341:LYS:O	2:A:343:GLY:N	2.45	0.42
2:A:374:ILE:CD1	2:A:375:ARG:HG3	2.50	0.42
2:A:402:ARG:O	2:A:406:GLY:CA	2.67	0.42
2:C:202:MET:O	2:C:203:LYS:C	2.57	0.42
2:C:208:VAL:N	2:C:210:LYS:NZ	2.67	0.42
2:C:223:GLY:O	2:C:226:ALA:N	2.52	0.42
2:C:255:GLY:O	2:C:256:ALA:C	2.58	0.42
2:C:258:SER:O	2:C:259:ALA:C	2.58	0.42
2:C:115:LYS:CD	2:C:279:LEU:H	2.32	0.42
2:C:295:GLY:CA	2:C:298:GLU:OE2	2.67	0.42
1:D:195:C:N4	1:D:210:G:H3'	2.35	0.42
2:E:165:GLU:O	2:E:166:ILE:C	2.58	0.42
2:E:166:ILE:CG2	2:E:167:ALA:H	2.27	0.42
2:E:202:MET:O	2:E:203:LYS:C	2.57	0.42
2:E:98:ILE:CG2	2:E:211:PRO:HA	2.48	0.42
2:E:196:THR:OG1	2:E:232:ARG:NH1	2.52	0.42
2:E:233:PHE:HA	2:E:236:ALA:HB2	2.02	0.42
2:E:255:GLY:O	2:E:256:ALA:C	2.58	0.42
2:E:258:SER:O	2:E:259:ALA:C	2.58	0.42
2:E:28:LYS:HA	2:E:31:GLN:CB	2.47	0.42
2:G:133:ASP:OD1	2:G:187:ALA:N	2.53	0.42
2:G:140:TYR:HA	2:G:143:LEU:HD21	2.01	0.42
2:G:210:LYS:H	2:G:211:PRO:CD	2.33	0.42
2:G:339:LEU:HA	2:G:342:MET:CE	2.49	0.42
2:G:38:ASP:HB3	2:G:252:LYS:O	2.20	0.42
2:G:54:ARG:O	2:G:57:LYS:N	2.52	0.42
2:A:106:GLY:HA2	2:A:109:LYS:NZ	2.35	0.42
2:A:10:ARG:O	2:A:13:LEU:N	2.52	0.42
2:A:165:GLU:O	2:A:166:ILE:C	2.58	0.42
2:A:273:GLY:O	2:A:274:GLU:O	2.38	0.42
2:A:39:VAL:HA	2:A:255:GLY:H	1.84	0.42
2:A:51:ILE:O	2:A:55:LEU:CD2	2.68	0.42
2:A:87:GLU:HA	2:A:88:PRO:HD2	1.86	0.42
2:C:19:TYR:O	2:C:22:ALA:N	2.50	0.42
2:C:314:GLN:C	2:C:315:LYS:HG2	2.40	0.42
2:C:40:ASN:HB3	2:C:43:LEU:HD11	2.01	0.42
2:C:410:GLU:OE2	2:C:412:GLU:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:412:GLU:O	2:C:414:VAL:N	2.53	0.42
1:D:220:C:H2'	1:D:220:C:O2	2.19	0.42
2:E:176:LYS:HG3	2:E:177:ASN:OD1	2.20	0.42
2:E:233:PHE:HA	2:E:236:ALA:HB3	2.01	0.42
2:E:32:LYS:C	2:E:34:LEU:N	2.73	0.42
2:E:402:ARG:O	2:E:406:GLY:CA	2.67	0.42
2:E:5:ILE:HD11	2:E:30:LEU:CB	2.50	0.42
2:E:68:GLU:O	2:E:71:ILE:N	2.47	0.42
2:G:106:GLY:HA2	2:G:109:LYS:NZ	2.35	0.42
2:G:258:SER:O	2:G:259:ALA:C	2.58	0.42
2:G:118:TYR:CZ	2:G:277:ASP:HB3	2.55	0.42
2:G:280:GLU:O	2:G:281:THR:O	2.37	0.42
2:A:113:ALA:O	2:A:114:GLY:C	2.58	0.42
2:A:285:LYS:O	2:A:289:SER:N	2.53	0.42
2:A:70:PHE:O	2:A:73:ILE:CB	2.64	0.42
2:C:120:TYR:HA	2:C:123:ARG:HG2	1.98	0.42
2:C:315:LYS:NZ	2:C:315:LYS:CB	2.76	0.42
2:C:7:ASP:C	2:C:9:VAL:H	2.22	0.42
2:E:82:PHE:CE1	2:E:257:LEU:CD1	3.03	0.42
2:E:285:LYS:O	2:E:289:SER:N	2.53	0.42
2:E:339:LEU:HA	2:E:342:MET:CE	2.49	0.42
2:E:40:ASN:HB3	2:E:43:LEU:HD11	2.01	0.42
2:G:115:LYS:HA	2:G:118:TYR:HD2	1.81	0.42
2:G:139:ALA:HB3	2:G:140:TYR:CD1	2.54	0.42
2:G:171:VAL:C	2:G:173:ILE:N	2.71	0.42
2:G:216:LEU:O	2:G:217:VAL:HG13	2.19	0.42
2:G:243:ILE:CG2	2:G:269:PHE:C	2.81	0.42
2:G:339:LEU:CA	2:G:342:MET:HB3	2.45	0.42
2:G:51:ILE:O	2:G:55:LEU:CD2	2.68	0.42
2:G:68:GLU:O	2:G:71:ILE:N	2.46	0.42
2:A:139:ALA:HB3	2:A:140:TYR:CD1	2.54	0.42
2:A:260:VAL:C	2:A:265:ALA:HB3	2.40	0.42
2:A:63:VAL:O	2:A:64:LEU:CB	2.63	0.42
1:B:195:C:N4	1:B:210:G:H3'	2.35	0.42
2:C:216:LEU:CG	2:C:217:VAL:N	2.83	0.42
2:C:237:SER:HA	2:C:238:PRO:HD3	1.89	0.42
2:C:247:MET:CG	2:C:270:ILE:HG13	2.50	0.42
2:C:27:ILE:O	2:C:31:GLN:N	2.31	0.42
2:C:285:LYS:O	2:C:289:SER:N	2.53	0.42
2:C:28:LYS:HA	2:C:31:GLN:CB	2.47	0.42
2:C:326:LYS:HB3	2:C:327:LEU:CD1	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:339:LEU:HA	2:C:342:MET:CE	2.49	0.42
2:C:32:LYS:C	2:C:34:LEU:N	2.73	0.42
2:C:374:ILE:HD13	2:C:375:ARG:HG3	2.02	0.42
2:C:374:ILE:CD1	2:C:375:ARG:HG3	2.50	0.42
2:C:58:GLU:HB3	2:C:69:TRP:CH2	2.54	0.42
2:E:10:ARG:O	2:E:13:LEU:N	2.52	0.42
2:E:208:VAL:N	2:E:210:LYS:NZ	2.67	0.42
2:E:250:THR:HB	2:E:251:ALA:H	1.52	0.42
2:E:252:LYS:CD	2:E:252:LYS:H	2.26	0.42
2:E:26:PHE:CD2	2:E:27:ILE:N	2.88	0.42
2:E:314:GLN:C	2:E:315:LYS:HG2	2.40	0.42
2:E:314:GLN:HB2	2:E:315:LYS:HE2	2.02	0.42
2:E:354:GLY:N	2:E:368:LYS:HE2	2.35	0.42
2:E:425:ASN:HA	2:E:428:LEU:CB	2.42	0.42
2:E:51:ILE:O	2:E:55:LEU:CD2	2.68	0.42
1:F:184:G:C5	1:F:185:G:C5	3.08	0.42
2:G:10:ARG:O	2:G:13:LEU:N	2.52	0.42
2:G:129:LEU:HG	2:G:183:ILE:HD13	2.02	0.42
2:G:202:MET:O	2:G:203:LYS:C	2.57	0.42
2:G:233:PHE:HA	2:G:236:ALA:HB3	2.01	0.42
2:G:247:MET:CG	2:G:270:ILE:HG13	2.50	0.42
2:G:295:GLY:CA	2:G:298:GLU:OE2	2.67	0.42
2:G:314:GLN:HB2	2:G:315:LYS:HE2	2.02	0.42
2:G:374:ILE:CD1	2:G:375:ARG:HG3	2.50	0.42
2:G:39:VAL:HA	2:G:255:GLY:H	1.84	0.42
2:A:177:ASN:ND2	2:G:144:LEU:CD1	2.83	0.42
2:A:201:GLU:C	2:A:203:LYS:N	2.72	0.42
2:A:222:ILE:HD11	2:A:226:ALA:HA	2.01	0.42
2:A:306:GLY:O	2:A:310:TYR:CD1	2.73	0.42
2:A:339:LEU:N	2:A:342:MET:HE2	2.35	0.42
2:A:86:LYS:HZ1	2:A:89:ASN:HD21	1.64	0.42
1:B:202:G:C8	1:B:202:G:O5'	2.72	0.42
1:B:202:G:O5'	1:B:202:G:H8	2.03	0.42
2:C:129:LEU:HG	2:C:183:ILE:HD13	2.02	0.42
2:C:26:PHE:CD2	2:C:27:ILE:N	2.88	0.42
2:C:402:ARG:O	2:C:406:GLY:CA	2.67	0.42
2:C:425:ASN:HA	2:C:428:LEU:CB	2.42	0.42
2:C:54:ARG:HH12	2:C:76:ASP:CG	2.23	0.42
1:D:222:G:H2'	1:D:223:G:O4'	2.20	0.42
2:E:137:PRO:HB2	2:E:138:ALA:H	1.68	0.42
2:E:210:LYS:H	2:E:211:PRO:CD	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:260:VAL:C	2:E:265:ALA:HB3	2.40	0.42
2:E:308:GLU:O	2:E:309:GLU:HB2	2.19	0.42
2:E:306:GLY:O	2:E:310:TYR:CD1	2.73	0.42
2:E:357:ILE:CD1	2:E:357:ILE:N	2.70	0.42
2:E:410:GLU:OE2	2:E:412:GLU:HG3	2.19	0.42
2:E:414:VAL:CG1	2:E:417:LEU:HD11	2.50	0.42
2:A:144:LEU:HD11	2:G:177:ASN:ND2	2.35	0.42
2:G:217:VAL:O	2:G:218:ILE:CG2	2.64	0.42
2:G:284:ALA:O	2:G:288:VAL:N	2.49	0.42
2:G:288:VAL:O	2:G:291:ILE:N	2.50	0.42
2:G:74:VAL:HG23	2:G:75:TYR:H	1.61	0.42
2:G:7:ASP:C	2:G:9:VAL:H	2.22	0.42
1:H:188:A:C4	1:H:189:A:C8	3.08	0.42
1:H:222:G:H2'	1:H:223:G:O4'	2.20	0.42
2:A:105:GLN:C	2:A:106:GLY:O	2.58	0.41
2:A:140:TYR:HA	2:A:143:LEU:HD21	2.01	0.41
2:A:260:VAL:HG12	2:A:265:ALA:HB3	2.01	0.41
1:B:188:A:C4	1:B:189:A:C8	3.08	0.41
1:B:222:G:H2'	1:B:223:G:O4'	2.20	0.41
2:C:113:ALA:O	2:C:114:GLY:C	2.58	0.41
2:C:99:ILE:HA	2:C:99:ILE:HD12	1.83	0.41
2:E:203:LYS:HB3	2:E:204:GLU:H	1.71	0.41
2:E:224:GLN:HA	2:E:259:ALA:CB	2.46	0.41
2:E:288:VAL:O	2:E:291:ILE:N	2.50	0.41
2:E:27:ILE:CA	2:E:30:LEU:HD23	2.48	0.41
2:E:359:LEU:CB	2:E:360:PRO:CD	2.87	0.41
2:E:367:LEU:O	2:E:368:LYS:CE	2.67	0.41
2:E:377:TRP:O	2:E:381:LEU:HD21	2.20	0.41
2:G:129:LEU:CD1	2:G:129:LEU:N	2.73	0.41
2:G:216:LEU:CG	2:G:217:VAL:N	2.83	0.41
2:G:247:MET:SD	2:G:270:ILE:CG1	3.07	0.41
2:G:391:ASN:C	2:G:393:ASN:N	2.74	0.41
2:G:35:ILE:CA	2:G:39:VAL:HB	2.48	0.41
2:G:414:VAL:CG1	2:G:417:LEU:HD11	2.50	0.41
2:G:5:ILE:HD11	2:G:30:LEU:CB	2.50	0.41
1:H:202:G:O5'	1:H:202:G:H8	2.03	0.41
1:H:218:G:N3	1:H:219:C:H5'	2.35	0.41
2:A:115:LYS:CA	2:A:118:TYR:CD2	3.00	0.41
2:A:233:PHE:HA	2:A:236:ALA:HB3	2.01	0.41
2:A:82:PHE:CE1	2:A:257:LEU:CD1	3.03	0.41
2:A:258:SER:O	2:A:259:ALA:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:370:GLY:O	2:A:372:GLU:N	2.53	0.41
2:A:424:MET:O	2:A:425:ASN:C	2.58	0.41
1:B:218:G:N3	1:B:219:C:H5'	2.35	0.41
2:C:105:GLN:C	2:C:106:GLY:O	2.58	0.41
2:C:260:VAL:HG12	2:C:265:ALA:HB3	2.01	0.41
2:C:25:GLU:HB2	2:C:26:PHE:H	1.52	0.41
2:C:284:ALA:O	2:C:288:VAL:N	2.49	0.41
2:C:35:ILE:CD1	2:C:35:ILE:H	2.32	0.41
2:C:417:LEU:CD1	2:C:418:LEU:CD2	2.98	0.41
1:D:184:G:C5	1:D:185:G:C5	3.08	0.41
2:E:133:ASP:OD1	2:E:187:ALA:N	2.53	0.41
2:E:295:GLY:CA	2:E:298:GLU:OE2	2.68	0.41
2:E:370:GLY:O	2:E:372:GLU:N	2.53	0.41
2:E:373:LYS:O	2:E:376:ARG:CB	2.60	0.41
2:E:374:ILE:HD13	2:E:375:ARG:HG3	2.02	0.41
2:E:384:MET:HE1	2:E:389:LEU:HD22	2.02	0.41
2:E:35:ILE:CA	2:E:39:VAL:HB	2.48	0.41
2:G:101:LEU:HD13	2:G:101:LEU:C	2.40	0.41
2:G:113:ALA:O	2:G:114:GLY:C	2.58	0.41
2:G:165:GLU:O	2:G:166:ILE:C	2.58	0.41
2:G:24:ASP:O	2:G:27:ILE:CB	2.63	0.41
2:G:115:LYS:CD	2:G:279:LEU:H	2.32	0.41
2:G:295:GLY:C	2:G:298:GLU:OE2	2.59	0.41
2:G:40:ASN:HB3	2:G:43:LEU:HD11	2.01	0.41
2:G:50:LYS:O	2:G:51:ILE:C	2.57	0.41
1:H:189:A:OP2	1:H:189:A:C8	2.73	0.41
2:A:210:LYS:H	2:A:211:PRO:CD	2.33	0.41
2:A:38:ASP:HB3	2:A:252:LYS:O	2.20	0.41
2:A:7:ASP:O	2:A:8:ALA:C	2.57	0.41
1:B:184:G:C5	1:B:185:G:C5	3.08	0.41
1:B:189:A:OP2	1:B:189:A:C8	2.73	0.41
2:C:12:PHE:O	2:C:14:THR:N	2.45	0.41
2:C:165:GLU:O	2:C:166:ILE:C	2.58	0.41
2:C:171:VAL:C	2:C:173:ILE:N	2.71	0.41
2:C:233:PHE:HA	2:C:236:ALA:HB2	2.02	0.41
2:C:295:GLY:C	2:C:298:GLU:OE2	2.59	0.41
2:C:303:LYS:O	2:C:304:VAL:C	2.57	0.41
2:C:38:ASP:HB3	2:C:252:LYS:O	2.20	0.41
2:C:5:ILE:HD11	2:C:30:LEU:CB	2.50	0.41
2:E:229:LEU:HD23	2:E:230:ALA:H	1.85	0.41
2:E:59:LYS:HZ2	2:E:60:PRO:C	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:220:C:H2'	1:F:220:C:O2	2.19	0.41
2:G:222:ILE:HD11	2:G:226:ALA:HA	2.01	0.41
2:G:260:VAL:HG12	2:G:267:ILE:HD11	1.99	0.41
2:G:273:GLY:O	2:G:274:GLU:O	2.38	0.41
2:A:129:LEU:HG	2:A:183:ILE:HD13	2.02	0.41
2:A:133:ASP:OD1	2:A:187:ALA:N	2.53	0.41
2:A:295:GLY:C	2:A:298:GLU:OE2	2.59	0.41
2:A:314:GLN:C	2:A:315:LYS:HG2	2.40	0.41
2:A:412:GLU:O	2:A:414:VAL:N	2.53	0.41
2:A:50:LYS:HZ1	2:A:54:ARG:HE	1.68	0.41
1:B:210:G:HO2'	1:B:211:C:P	2.41	0.41
2:C:219:ASP:OD2	2:C:220:ALA:N	2.53	0.41
2:C:306:GLY:O	2:C:310:TYR:CD1	2.73	0.41
2:C:374:ILE:HD13	2:C:375:ARG:H	1.76	0.41
2:C:391:ASN:C	2:C:393:ASN:N	2.74	0.41
2:C:400:MET:O	2:C:403:ILE:N	2.53	0.41
1:D:202:G:O5'	1:D:202:G:H8	2.03	0.41
1:D:218:G:N3	1:D:219:C:H5'	2.35	0.41
2:E:115:LYS:CA	2:E:118:TYR:HD2	2.34	0.41
2:E:219:ASP:OD2	2:E:220:ALA:N	2.53	0.41
2:E:243:ILE:CG2	2:E:269:PHE:C	2.81	0.41
2:E:247:MET:CG	2:E:270:ILE:HG13	2.50	0.41
2:E:374:ILE:CD1	2:E:375:ARG:HG3	2.50	0.41
2:E:381:LEU:N	2:E:381:LEU:CD2	2.80	0.41
2:E:424:MET:O	2:E:425:ASN:C	2.58	0.41
1:F:188:A:C4	1:F:189:A:C8	3.08	0.41
1:F:211:C:C2'	1:F:212:A:O5'	2.69	0.41
2:G:136:ARG:HH11	2:G:137:PRO:HG2	1.84	0.41
2:G:173:ILE:H	2:G:173:ILE:HD13	1.84	0.41
2:G:254:GLY:O	2:G:257:LEU:CD1	2.69	0.41
2:G:306:GLY:O	2:G:310:TYR:CD1	2.73	0.41
2:G:314:GLN:C	2:G:315:LYS:HG2	2.40	0.41
2:G:315:LYS:HB2	2:G:316:LYS:H	1.58	0.41
2:G:339:LEU:N	2:G:342:MET:HE2	2.35	0.41
2:G:12:PHE:CZ	2:G:67:LYS:CB	3.04	0.41
2:A:14:THR:O	2:A:67:LYS:NZ	2.51	0.41
2:A:204:GLU:O	2:A:208:VAL:CG2	2.57	0.41
2:A:98:ILE:CG2	2:A:211:PRO:HA	2.48	0.41
2:A:247:MET:CG	2:A:270:ILE:HG13	2.50	0.41
2:A:26:PHE:CD2	2:A:27:ILE:N	2.88	0.41
2:A:30:LEU:HD12	2:A:34:LEU:HD21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:331:ASP:O	2:A:332:VAL:C	2.59	0.41
2:A:402:ARG:NH2	2:A:403:ILE:HD11	2.36	0.41
2:C:101:LEU:HD22	2:C:101:LEU:HA	1.53	0.41
2:C:14:THR:O	2:C:67:LYS:NZ	2.51	0.41
2:C:260:VAL:C	2:C:265:ALA:HB3	2.40	0.41
2:C:311:ASP:O	2:C:312:LYS:C	2.58	0.41
2:C:354:GLY:N	2:C:368:LYS:HE2	2.35	0.41
2:C:80:LYS:O	2:C:81:LEU:C	2.59	0.41
2:C:5:ILE:HD13	2:C:8:ALA:HB3	2.02	0.41
2:E:129:LEU:HG	2:E:183:ILE:HD13	2.02	0.41
2:E:134:VAL:HG23	2:E:134:VAL:O	2.21	0.41
2:E:139:ALA:N	2:E:141:ASP:OD1	2.54	0.41
2:E:147:GLY:O	2:E:152:VAL:N	2.43	0.41
2:E:227:TYR:O	2:E:228:ASP:C	2.59	0.41
2:E:295:GLY:C	2:E:298:GLU:OE2	2.59	0.41
2:E:341:LYS:O	2:E:343:GLY:N	2.45	0.41
2:E:38:ASP:HB3	2:E:252:LYS:O	2.20	0.41
2:E:400:MET:O	2:E:403:ILE:N	2.53	0.41
2:E:405:GLU:HG3	2:E:406:GLY:N	2.35	0.41
2:E:414:VAL:C	2:E:416:GLU:N	2.70	0.41
2:E:43:LEU:O	2:E:45:PHE:N	2.54	0.41
2:E:6:ARG:O	2:E:9:VAL:HB	2.21	0.41
2:G:243:ILE:HA	2:G:267:ILE:HG23	2.02	0.41
2:G:367:LEU:O	2:G:368:LYS:CE	2.67	0.41
2:G:379:ALA:O	2:G:380:ALA:O	2.39	0.41
2:G:400:MET:O	2:G:403:ILE:N	2.53	0.41
2:A:115:LYS:CA	2:A:118:TYR:HD2	2.34	0.41
2:A:12:PHE:CZ	2:A:67:LYS:CB	3.04	0.41
2:A:1:MET:HG3	2:A:2:LEU:HD23	2.03	0.41
2:A:356:GLY:HA2	2:A:424:MET:HE3	2.02	0.41
2:A:400:MET:O	2:A:403:ILE:N	2.53	0.41
2:A:410:GLU:O	2:A:413:GLU:OE1	2.39	0.41
2:A:55:LEU:C	2:A:57:LYS:H	2.24	0.41
1:B:205:A:H3'	1:B:206:G:O4'	2.21	0.41
2:C:12:PHE:CZ	2:C:67:LYS:CB	3.04	0.41
2:C:140:TYR:O	2:C:143:LEU:CG	2.65	0.41
2:C:154:VAL:CG1	2:C:155:TYR:N	2.73	0.41
2:C:176:LYS:HG3	2:C:177:ASN:OD1	2.20	0.41
2:C:233:PHE:HA	2:C:236:ALA:HB3	2.02	0.41
2:C:118:TYR:CZ	2:C:277:ASP:HB3	2.55	0.41
2:C:314:GLN:HB2	2:C:315:LYS:HE2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:6:ARG:O	2:C:9:VAL:HB	2.21	0.41
1:D:188:A:C4	1:D:189:A:C8	3.08	0.41
2:E:104:VAL:C	2:E:105:GLN:O	2.50	0.41
2:E:106:GLY:HA2	2:E:109:LYS:NZ	2.35	0.41
2:E:115:LYS:CA	2:E:118:TYR:CD2	3.00	0.41
2:E:202:MET:O	2:E:202:MET:HG2	2.20	0.41
2:E:273:GLY:O	2:E:274:GLU:O	2.38	0.41
2:E:118:TYR:CZ	2:E:277:ASP:HB3	2.55	0.41
2:E:41:VAL:HA	2:E:44:VAL:HG21	1.96	0.41
2:E:420:TRP:O	2:E:421:TYR:HD1	2.04	0.41
2:E:79:SER:HB2	2:E:80:LYS:H	1.70	0.41
2:G:114:GLY:C	2:G:116:LEU:N	2.71	0.41
2:G:115:LYS:CA	2:G:118:TYR:HD2	2.34	0.41
2:G:229:LEU:HD23	2:G:230:ALA:H	1.85	0.41
2:G:260:VAL:HG12	2:G:265:ALA:HB3	2.01	0.41
2:G:311:ASP:N	2:G:311:ASP:OD1	2.31	0.41
1:H:213:A:P	2:G:385:THR:HA	2.61	0.41
2:G:5:ILE:HD13	2:G:8:ALA:HB3	2.02	0.41
1:H:220:C:O2	1:H:220:C:H2'	2.19	0.41
2:A:104:VAL:C	2:A:105:GLN:O	2.50	0.41
2:A:227:TYR:O	2:A:228:ASP:C	2.59	0.41
2:A:262:ALA:O	2:A:263:THR:HG23	2.21	0.41
2:A:379:ALA:O	2:A:380:ALA:O	2.39	0.41
1:B:184:G:O6	1:B:185:G:C6	2.74	0.41
2:C:133:ASP:OD1	2:C:187:ALA:N	2.53	0.41
2:C:244:ILE:N	2:C:244:ILE:CD1	2.84	0.41
2:C:25:GLU:O	2:C:29:ASP:N	2.37	0.41
2:C:271:GLY:HA2	2:C:279:LEU:HA	1.97	0.41
2:C:336:ILE:CG2	2:C:378:LEU:HD12	2.46	0.41
2:C:379:ALA:O	2:C:380:ALA:O	2.39	0.41
2:C:405:GLU:HG3	2:C:406:GLY:N	2.35	0.41
2:C:414:VAL:CG1	2:C:417:LEU:HD11	2.50	0.41
2:C:414:VAL:C	2:C:416:GLU:N	2.70	0.41
2:C:66:ARG:O	2:C:68:GLU:N	2.54	0.41
2:E:134:VAL:CB	2:E:161:GLN:HA	2.50	0.41
2:E:164:ILE:O	2:E:165:GLU:O	2.39	0.41
2:E:376:ARG:CG	2:E:376:ARG:NH2	2.80	0.41
2:E:39:VAL:HA	2:E:255:GLY:H	1.84	0.41
2:E:61:PRO:O	2:E:62:SER:C	2.59	0.41
1:F:202:G:H8	1:F:202:G:O5'	2.03	0.41
2:G:182:ILE:CG2	2:G:183:ILE:N	2.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:217:VAL:C	2:G:218:ILE:HG23	2.41	0.41
2:G:227:TYR:O	2:G:228:ASP:C	2.59	0.41
2:G:82:PHE:CE1	2:G:257:LEU:CD1	3.03	0.41
2:G:297:ILE:CD1	2:G:298:GLU:N	2.75	0.41
2:G:30:LEU:HD12	2:G:34:LEU:HD21	2.03	0.41
2:G:374:ILE:HD13	2:G:375:ARG:HG3	2.02	0.41
2:G:410:GLU:O	2:G:413:GLU:OE1	2.39	0.41
2:G:420:TRP:O	2:G:421:TYR:HD1	2.04	0.41
2:A:101:LEU:C	2:A:101:LEU:HD13	2.40	0.41
2:A:12:PHE:HZ	2:A:67:LYS:CB	2.34	0.41
2:A:136:ARG:HA	2:A:137:PRO:HD2	1.65	0.41
2:A:141:ASP:O	2:A:144:LEU:HB3	2.21	0.41
2:A:254:GLY:O	2:A:257:LEU:CD1	2.69	0.41
2:A:362:PRO:O	2:A:363:SER:HB2	2.21	0.41
1:B:213:A:P	2:A:385:THR:HA	2.61	0.41
1:B:188:A:C4	2:A:399:ARG:HG2	2.56	0.41
2:C:164:ILE:O	2:C:165:GLU:O	2.39	0.41
2:C:227:TYR:O	2:C:228:ASP:C	2.59	0.41
2:C:231:SER:O	2:C:234:HIS:N	2.51	0.41
2:C:43:LEU:O	2:C:45:PHE:N	2.54	0.41
1:D:188:A:C4	2:C:399:ARG:HG2	2.56	0.41
1:D:211:C:C2'	1:D:212:A:O5'	2.69	0.41
2:E:26:PHE:HD2	2:E:27:ILE:HD13	1.82	0.41
2:E:315:LYS:HB2	2:E:316:LYS:H	1.57	0.41
2:E:415:ARG:O	2:E:417:LEU:N	2.47	0.41
2:E:417:LEU:CD1	2:E:418:LEU:CD2	2.98	0.41
2:E:12:PHE:CZ	2:E:67:LYS:CB	3.04	0.41
2:G:123:ARG:HD2	2:G:123:ARG:HA	1.95	0.41
2:G:134:VAL:CB	2:G:161:GLN:HA	2.50	0.41
2:G:260:VAL:C	2:G:265:ALA:HB3	2.40	0.41
2:G:262:ALA:O	2:G:263:THR:HG23	2.21	0.41
2:G:32:LYS:C	2:G:34:LEU:N	2.73	0.41
2:G:377:TRP:CZ2	2:G:417:LEU:CB	3.04	0.41
2:G:6:ARG:O	2:G:9:VAL:HB	2.21	0.41
2:A:199:LEU:O	2:A:200:GLU:C	2.58	0.41
2:A:226:ALA:O	2:A:227:TYR:O	2.39	0.41
2:A:276:ILE:O	2:A:276:ILE:CD1	2.69	0.41
2:A:346:SER:CA	2:A:350:GLN:NE2	2.84	0.41
2:A:391:ASN:C	2:A:393:ASN:N	2.74	0.41
2:A:61:PRO:O	2:A:62:SER:C	2.59	0.41
2:A:66:ARG:O	2:A:68:GLU:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:5:ILE:HD13	2:A:8:ALA:HB3	2.02	0.41
2:A:94:LYS:C	2:A:95:LEU:CD1	2.87	0.41
1:B:211:C:C2'	1:B:212:A:O5'	2.69	0.41
2:C:141:ASP:O	2:C:144:LEU:HB3	2.20	0.41
2:C:157:GLU:HA	2:C:158:PRO:HD3	1.89	0.41
2:C:201:GLU:O	2:C:203:LYS:N	2.54	0.41
2:C:82:PHE:CE1	2:C:257:LEU:CD1	3.03	0.41
2:C:262:ALA:O	2:C:263:THR:HG23	2.21	0.41
2:C:273:GLY:O	2:C:274:GLU:O	2.38	0.41
2:C:410:GLU:O	2:C:413:GLU:OE1	2.39	0.41
2:C:377:TRP:CZ2	2:C:417:LEU:CB	3.04	0.41
2:C:420:TRP:O	2:C:421:TYR:HD1	2.04	0.41
2:C:424:MET:O	2:C:425:ASN:C	2.58	0.41
2:C:75:TYR:O	2:C:78:LEU:HG	2.21	0.41
2:E:101:LEU:HD13	2:E:101:LEU:C	2.40	0.41
2:E:136:ARG:HH11	2:E:137:PRO:HG2	1.84	0.41
2:E:146:LEU:CD2	2:E:146:LEU:H	2.06	0.41
2:E:181:ILE:N	2:E:181:ILE:HD12	2.34	0.41
2:E:216:LEU:CG	2:E:217:VAL:N	2.83	0.41
2:E:377:TRP:CZ2	2:E:417:LEU:CB	3.04	0.41
2:E:63:VAL:HG13	2:E:351:HIS:HB3	2.03	0.41
2:E:7:ASP:C	2:E:9:VAL:H	2.22	0.41
1:F:222:G:H2'	1:F:223:G:O4'	2.20	0.41
2:G:199:LEU:O	2:G:200:GLU:C	2.58	0.41
2:G:424:MET:O	2:G:425:ASN:C	2.58	0.41
2:G:55:LEU:C	2:G:57:LYS:H	2.24	0.41
2:G:47:LEU:CD1	2:G:77:GLU:HB3	2.50	0.41
2:A:139:ALA:N	2:A:141:ASP:OD1	2.54	0.41
2:A:169:LYS:O	2:A:173:ILE:CD1	2.69	0.41
2:A:182:ILE:CG2	2:A:183:ILE:N	2.84	0.41
2:A:320:VAL:HG12	2:A:321:MET:N	2.36	0.41
2:A:354:GLY:N	2:A:368:LYS:HE2	2.35	0.41
2:A:35:ILE:CA	2:A:39:VAL:HB	2.48	0.41
2:A:59:LYS:NZ	2:A:61:PRO:N	2.67	0.41
2:A:5:ILE:HG22	2:A:6:ARG:N	2.36	0.41
2:A:6:ARG:O	2:A:9:VAL:HB	2.21	0.41
2:C:136:ARG:HH11	2:C:137:PRO:HG2	1.84	0.41
2:C:320:VAL:HG12	2:C:321:MET:N	2.36	0.41
2:C:370:GLY:HA2	2:C:373:LYS:HD2	2.03	0.41
2:C:79:SER:HB2	2:C:80:LYS:H	1.70	0.41
2:C:82:PHE:HB3	2:C:83:GLY:H	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:12:PHE:HZ	2:E:67:LYS:CB	2.34	0.41
2:E:127:VAL:C	2:E:181:ILE:O	2.59	0.41
2:E:217:VAL:C	2:E:218:ILE:HG23	2.41	0.41
2:E:254:GLY:O	2:E:257:LEU:CD1	2.69	0.41
2:E:276:ILE:CD1	2:E:276:ILE:O	2.69	0.41
2:E:380:ALA:CA	2:E:383:SER:HB2	2.47	0.41
1:F:188:A:C4	2:E:399:ARG:HG2	2.56	0.41
2:E:55:LEU:C	2:E:57:LYS:H	2.24	0.41
2:E:86:LYS:C	2:E:86:LYS:HD3	2.41	0.41
2:E:5:ILE:HD13	2:E:8:ALA:HB3	2.02	0.41
1:F:218:G:N3	1:F:219:C:H5'	2.35	0.41
2:G:139:ALA:N	2:G:141:ASP:OD1	2.54	0.41
2:G:175:VAL:H	2:G:175:VAL:HG23	1.65	0.41
2:G:243:ILE:HG22	2:G:244:ILE:N	2.36	0.41
2:G:331:ASP:O	2:G:332:VAL:C	2.59	0.41
1:H:184:G:C5	1:H:185:G:C5	3.08	0.41
2:A:127:VAL:C	2:A:181:ILE:O	2.59	0.41
2:A:164:ILE:O	2:A:165:GLU:O	2.39	0.41
2:A:201:GLU:O	2:A:203:LYS:N	2.54	0.41
2:A:243:ILE:HA	2:A:267:ILE:HG23	2.02	0.41
2:A:337:ILE:CD1	2:A:337:ILE:N	2.74	0.41
2:A:374:ILE:HD13	2:A:375:ARG:HG3	2.02	0.41
2:A:420:TRP:O	2:A:421:TYR:HD1	2.04	0.41
2:A:75:TYR:O	2:A:78:LEU:HG	2.21	0.41
1:B:197:G:H22	2:A:407:SER:CB	2.34	0.41
2:C:101:LEU:HD13	2:C:101:LEU:C	2.40	0.41
2:C:153:GLN:CG	2:C:154:VAL:N	2.84	0.41
2:C:217:VAL:C	2:C:218:ILE:HG23	2.41	0.41
2:C:221:SER:HA	2:C:250:THR:HG21	2.03	0.41
2:C:26:PHE:HD2	2:C:27:ILE:HD13	1.82	0.41
2:C:364:GLU:HB3	2:C:365:ASP:H	1.59	0.41
1:D:184:G:O6	1:D:185:G:C6	2.74	0.41
2:E:159:ASN:HB2	2:E:160:ASN:H	1.60	0.41
2:E:199:LEU:O	2:E:200:GLU:C	2.58	0.41
2:E:246:LYS:HB3	2:E:249:GLY:CA	2.49	0.41
2:E:247:MET:CB	2:E:272:THR:HA	2.40	0.41
2:E:300:ILE:HA	2:E:303:LYS:CE	2.43	0.41
2:G:121:LYS:C	2:G:123:ARG:N	2.73	0.41
2:G:176:LYS:HG3	2:G:177:ASN:OD1	2.20	0.41
2:G:194:GLU:O	2:G:195:GLU:C	2.59	0.41
2:G:26:PHE:CD2	2:G:27:ILE:N	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:346:SER:CA	2:G:350:GLN:NE2	2.84	0.41
2:G:75:TYR:O	2:G:78:LEU:HG	2.21	0.41
1:H:184:G:O6	1:H:185:G:C6	2.74	0.41
2:A:229:LEU:HD23	2:A:230:ALA:H	1.85	0.40
2:A:231:SER:O	2:A:234:HIS:N	2.52	0.40
2:A:310:TYR:O	2:A:313:ILE:N	2.50	0.40
2:A:43:LEU:O	2:A:45:PHE:N	2.54	0.40
2:A:86:LYS:C	2:A:86:LYS:HD3	2.41	0.40
1:B:192:G:N1	1:B:216:G:C2	2.89	0.40
2:C:106:GLY:HA2	2:C:109:LYS:NZ	2.35	0.40
2:C:139:ALA:N	2:C:141:ASP:OD1	2.54	0.40
2:C:169:LYS:O	2:C:173:ILE:CD1	2.69	0.40
2:C:300:ILE:CG1	2:C:301:LEU:N	2.85	0.40
2:C:331:ASP:O	2:C:332:VAL:C	2.59	0.40
2:C:346:SER:CA	2:C:350:GLN:NE2	2.84	0.40
2:C:41:VAL:HA	2:C:44:VAL:HG21	1.96	0.40
2:E:169:LYS:O	2:E:173:ILE:CD1	2.69	0.40
2:E:104:VAL:HG11	2:E:229:LEU:HD11	2.02	0.40
2:E:262:ALA:O	2:E:263:THR:HG23	2.21	0.40
2:E:115:LYS:HZ1	2:E:278:GLU:HB2	1.81	0.40
2:E:368:LYS:HB3	2:E:369:ILE:H	1.38	0.40
2:E:410:GLU:O	2:E:413:GLU:OE1	2.39	0.40
2:E:73:ILE:N	2:E:73:ILE:HD13	2.37	0.40
1:F:208:G:C8	1:F:208:G:OP2	2.74	0.40
2:G:164:ILE:O	2:G:165:GLU:O	2.39	0.40
2:G:165:GLU:HB2	2:G:166:ILE:H	1.53	0.40
2:G:169:LYS:O	2:G:173:ILE:CD1	2.69	0.40
2:G:300:ILE:CG1	2:G:301:LEU:N	2.85	0.40
2:G:35:ILE:H	2:G:35:ILE:HD13	1.87	0.40
2:G:354:GLY:N	2:G:368:LYS:HE2	2.35	0.40
2:G:61:PRO:O	2:G:62:SER:C	2.59	0.40
1:H:211:C:C2'	1:H:212:A:O5'	2.69	0.40
2:A:176:LYS:O	2:A:178:LYS:NZ	2.51	0.40
2:A:176:LYS:HG3	2:A:177:ASN:OD1	2.20	0.40
2:A:198:LEU:O	2:A:201:GLU:N	2.50	0.40
2:A:244:ILE:N	2:A:244:ILE:CD1	2.84	0.40
2:A:255:GLY:O	2:A:256:ALA:C	2.58	0.40
2:A:25:GLU:HB2	2:A:26:PHE:H	1.52	0.40
2:A:288:VAL:O	2:A:291:ILE:N	2.50	0.40
2:A:63:VAL:HG13	2:A:351:HIS:HB3	2.03	0.40
2:A:377:TRP:CZ2	2:A:417:LEU:CB	3.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:422:ASN:HA	2:A:425:ASN:OD1	2.22	0.40
2:A:83:GLY:O	2:A:84:GLY:O	2.40	0.40
2:C:182:ILE:CG2	2:C:183:ILE:N	2.84	0.40
2:C:194:GLU:O	2:C:195:GLU:C	2.59	0.40
2:C:199:LEU:O	2:C:200:GLU:C	2.59	0.40
2:C:229:LEU:HD23	2:C:230:ALA:H	1.85	0.40
2:C:243:ILE:HA	2:C:267:ILE:HG23	2.02	0.40
2:C:115:LYS:HZ1	2:C:278:GLU:HB2	1.83	0.40
2:C:35:ILE:H	2:C:35:ILE:HD13	1.87	0.40
1:D:213:A:P	2:C:385:THR:HA	2.61	0.40
1:D:192:G:N1	1:D:216:G:C2	2.89	0.40
1:D:208:G:C8	1:D:208:G:OP2	2.74	0.40
2:E:201:GLU:O	2:E:203:LYS:N	2.54	0.40
2:E:243:ILE:HG22	2:E:244:ILE:N	2.36	0.40
2:E:331:ASP:O	2:E:332:VAL:C	2.59	0.40
2:E:383:SER:O	2:E:403:ILE:HG23	2.21	0.40
2:E:402:ARG:NH2	2:E:403:ILE:HD11	2.36	0.40
1:F:184:G:O6	1:F:185:G:C6	2.74	0.40
2:G:10:ARG:HG2	2:G:13:LEU:HB2	2.03	0.40
2:G:255:GLY:O	2:G:256:ALA:C	2.58	0.40
2:G:270:ILE:CG2	2:G:271:GLY:N	2.85	0.40
1:H:192:G:N1	1:H:216:G:C2	2.89	0.40
2:A:181:ILE:HD12	2:A:181:ILE:N	2.34	0.40
2:A:237:SER:HA	2:A:238:PRO:HD3	1.89	0.40
2:A:270:ILE:CG2	2:A:271:GLY:N	2.85	0.40
2:A:384:MET:CE	2:A:389:LEU:HD22	2.52	0.40
2:C:117:ALA:HB2	2:C:129:LEU:HD21	2.03	0.40
2:C:243:ILE:HG22	2:C:244:ILE:N	2.36	0.40
2:C:254:GLY:O	2:C:257:LEU:CD1	2.69	0.40
2:C:373:LYS:O	2:C:376:ARG:CB	2.60	0.40
2:C:383:SER:O	2:C:403:ILE:HG23	2.22	0.40
2:C:12:PHE:HZ	2:C:67:LYS:CB	2.34	0.40
1:D:190:C:O2	1:D:190:C:H2'	2.22	0.40
2:E:195:GLU:O	2:E:196:THR:C	2.60	0.40
2:E:198:LEU:O	2:E:201:GLU:N	2.50	0.40
2:E:1:MET:HG3	2:E:2:LEU:HD23	2.03	0.40
2:E:30:LEU:HD12	2:E:34:LEU:HD21	2.03	0.40
2:E:370:GLY:HA2	2:E:373:LYS:HD2	2.03	0.40
2:G:231:SER:O	2:G:234:HIS:N	2.52	0.40
2:G:244:ILE:N	2:G:244:ILE:CD1	2.84	0.40
2:G:63:VAL:HG13	2:G:351:HIS:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:370:GLY:HA2	2:G:373:LYS:HD2	2.03	0.40
2:G:82:PHE:CE1	2:G:257:LEU:HD13	2.57	0.40
2:A:134:VAL:HG23	2:A:134:VAL:O	2.21	0.40
2:A:153:GLN:CG	2:A:154:VAL:N	2.84	0.40
2:A:134:VAL:CB	2:A:161:GLN:HA	2.50	0.40
2:C:140:TYR:HE2	2:C:157:GLU:H	1.70	0.40
2:C:127:VAL:C	2:C:181:ILE:O	2.59	0.40
2:C:195:GLU:O	2:C:196:THR:C	2.60	0.40
2:C:276:ILE:O	2:C:276:ILE:CD1	2.69	0.40
2:C:298:GLU:H	2:C:298:GLU:HG3	1.55	0.40
2:C:30:LEU:HD12	2:C:34:LEU:HD21	2.03	0.40
2:C:303:LYS:HB3	2:C:338:ALA:HA	2.03	0.40
2:C:63:VAL:HG13	2:C:351:HIS:HB3	2.03	0.40
2:C:86:LYS:C	2:C:86:LYS:HD3	2.41	0.40
2:E:142:GLN:O	2:E:145:GLN:CG	2.70	0.40
2:E:194:GLU:O	2:E:195:GLU:C	2.59	0.40
2:E:82:PHE:CE1	2:E:257:LEU:HD13	2.57	0.40
2:E:22:ALA:HA	2:E:25:GLU:OE2	2.22	0.40
2:E:25:GLU:HB2	2:E:26:PHE:H	1.52	0.40
2:E:362:PRO:O	2:E:363:SER:HB2	2.21	0.40
2:E:379:ALA:O	2:E:380:ALA:O	2.39	0.40
2:E:73:ILE:O	2:E:74:VAL:C	2.60	0.40
2:E:86:LYS:NZ	2:E:89:ASN:CG	2.75	0.40
2:G:117:ALA:HB2	2:G:129:LEU:HD21	2.03	0.40
2:G:141:ASP:O	2:G:144:LEU:HB3	2.21	0.40
2:G:159:ASN:HB2	2:G:160:ASN:H	1.60	0.40
2:G:195:GLU:O	2:G:196:THR:C	2.60	0.40
2:G:202:MET:HG2	2:G:202:MET:O	2.20	0.40
2:G:226:ALA:O	2:G:227:TYR:O	2.39	0.40
2:G:411:VAL:O	2:G:413:GLU:N	2.55	0.40
2:A:142:GLN:O	2:A:145:GLN:CG	2.70	0.40
2:A:217:VAL:C	2:A:218:ILE:HG23	2.41	0.40
2:A:300:ILE:CG1	2:A:301:LEU:N	2.85	0.40
2:C:144:LEU:HD11	2:E:177:ASN:ND2	2.37	0.40
2:C:82:PHE:CE1	2:C:257:LEU:HD13	2.56	0.40
2:C:339:LEU:HA	2:C:342:MET:HE3	2.02	0.40
2:C:409:LEU:HD23	2:C:409:LEU:HA	1.92	0.40
2:C:82:PHE:HA	2:C:261:VAL:HG21	2.04	0.40
2:C:87:GLU:HA	2:C:88:PRO:HD2	1.86	0.40
2:E:140:TYR:O	2:E:143:LEU:CG	2.65	0.40
2:E:141:ASP:O	2:E:144:LEU:HB3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:261:VAL:O	2:E:264:GLY:N	2.47	0.40
2:E:24:ASP:O	2:E:28:LYS:HG3	2.22	0.40
2:E:311:ASP:OD1	2:E:311:ASP:N	2.31	0.40
2:E:320:VAL:HG12	2:E:321:MET:N	2.36	0.40
2:E:3:GLU:O	2:E:5:ILE:N	2.54	0.40
2:E:51:ILE:O	2:E:55:LEU:HD23	2.21	0.40
2:E:56:ASN:O	2:E:57:LYS:CG	2.68	0.40
2:E:66:ARG:O	2:E:68:GLU:N	2.54	0.40
1:F:205:A:H5''	1:F:206:G:OP2	2.22	0.40
2:G:142:GLN:O	2:G:145:GLN:CG	2.70	0.40
2:G:176:LYS:O	2:G:178:LYS:NZ	2.51	0.40
2:G:384:MET:CE	2:G:389:LEU:HD22	2.52	0.40
2:G:414:VAL:C	2:G:416:GLU:N	2.70	0.40
2:G:43:LEU:O	2:G:45:PHE:N	2.54	0.40
2:G:66:ARG:O	2:G:68:GLU:N	2.54	0.40
2:G:83:GLY:O	2:G:84:GLY:O	2.40	0.40
1:H:190:C:H2'	1:H:190:C:O2	2.22	0.40

All (22) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:59:LYS:O	2:E:361:THR:O[2_655]	1.08	1.12
2:C:315:LYS:CG	2:E:312:LYS:NZ[2_655]	1.56	0.64
2:C:61:PRO:CB	2:E:359:LEU:O[2_655]	1.59	0.61
2:C:361:THR:O	2:E:59:LYS:O[2_655]	1.59	0.61
2:A:59:LYS:CD	2:G:361:THR:O[2_665]	1.73	0.47
1:H:199:C:OP1	2:E:21:LYS:NZ[1_565]	1.83	0.37
2:C:315:LYS:CG	2:E:312:LYS:CE[2_655]	1.87	0.33
2:C:61:PRO:CG	2:E:360:PRO:CA[2_655]	1.90	0.30
2:C:58:GLU:CA	2:E:362:PRO:CB[2_655]	1.91	0.29
2:C:59:LYS:O	2:E:361:THR:C[2_655]	1.95	0.25
2:A:366:GLN:OE1	2:E:365:ASP:CG[2_555]	1.95	0.25
2:C:61:PRO:CD	2:E:360:PRO:CA[2_655]	1.96	0.24
2:A:362:PRO:CB	2:G:57:LYS:O[2_665]	1.99	0.21
2:C:308:GLU:CG	2:E:359:LEU:CD2[2_655]	2.04	0.16
2:C:59:LYS:C	2:E:361:THR:O[2_655]	2.07	0.13
2:A:361:THR:O	2:G:59:LYS:CD[2_665]	2.10	0.10
2:C:359:LEU:CD2	2:E:308:GLU:CB[2_655]	2.10	0.10
1:B:199:C:OP1	2:C:21:LYS:NZ[1_455]	2.11	0.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:366:GLN:OE1	2:E:365:ASP:OD1[2_555]	2.12	0.08
1:F:200:C:OP2	2:G:21:LYS:NZ[1_545]	2.14	0.06
2:C:362:PRO:C	2:E:59:LYS:CD[2_655]	2.14	0.06
2:C:61:PRO:CB	2:E:359:LEU:C[2_655]	2.19	0.01

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	
2	A	430/440 (98%)	142 (33%)	123 (29%)	165 (38%)	0	0
2	C	430/440 (98%)	143 (33%)	123 (29%)	164 (38%)	0	0
2	E	430/440 (98%)	143 (33%)	122 (28%)	165 (38%)	0	0
2	G	430/440 (98%)	142 (33%)	123 (29%)	165 (38%)	0	0
All	All	1720/1760 (98%)	570 (33%)	491 (28%)	659 (38%)	0	0

All (659) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	A	18	PRO
2	A	20	GLU
2	A	23	VAL
2	A	33	SER
2	A	39	VAL
2	A	44	VAL
2	A	62	SER
2	A	84	GLY
2	A	104	VAL
2	A	109	LYS
2	A	111	THR
2	A	112	THR
2	A	113	ALA

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Mol	Chain	Res	Type
2	A	127	VAL
2	A	137	PRO
2	A	138	ALA
2	A	139	ALA
2	A	140	TYR
2	A	141	ASP
2	A	144	LEU
2	A	145	GLN
2	A	163	PRO
2	A	165	GLU
2	A	171	VAL
2	A	172	ASP
2	A	173	ILE
2	A	203	LYS
2	A	227	TYR
2	A	246	LYS
2	A	251	ALA
2	A	256	ALA
2	A	260	VAL
2	A	261	VAL
2	A	262	ALA
2	A	274	GLU
2	A	275	LYS
2	A	281	THR
2	A	284	ALA
2	A	297	ILE
2	A	299	SER
2	A	309	GLU
2	A	314	GLN
2	A	318	GLU
2	A	323	GLY
2	A	332	VAL
2	A	336	ILE
2	A	337	ILE
2	A	338	ALA
2	A	347	LYS
2	A	353	PRO
2	A	357	ILE
2	A	358	MET
2	A	364	GLU
2	A	368	LYS
2	A	369	ILE

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Mol	Chain	Res	Type
2	A	371	GLU
2	A	379	ALA
2	A	380	ALA
2	A	398	SER
2	A	411	VAL
2	A	412	GLU
2	C	18	PRO
2	C	20	GLU
2	C	23	VAL
2	C	33	SER
2	C	39	VAL
2	C	44	VAL
2	C	62	SER
2	C	84	GLY
2	C	104	VAL
2	C	109	LYS
2	C	111	THR
2	C	112	THR
2	C	113	ALA
2	C	127	VAL
2	C	137	PRO
2	C	138	ALA
2	C	139	ALA
2	C	140	TYR
2	C	141	ASP
2	C	144	LEU
2	C	145	GLN
2	C	163	PRO
2	C	165	GLU
2	C	171	VAL
2	C	172	ASP
2	C	173	ILE
2	C	203	LYS
2	C	227	TYR
2	C	246	LYS
2	C	251	ALA
2	C	256	ALA
2	C	260	VAL
2	C	261	VAL
2	C	262	ALA
2	C	274	GLU
2	C	275	LYS

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Mol	Chain	Res	Type
2	C	281	THR
2	C	284	ALA
2	C	297	ILE
2	C	299	SER
2	C	309	GLU
2	C	314	GLN
2	C	318	GLU
2	C	323	GLY
2	C	332	VAL
2	C	336	ILE
2	C	337	ILE
2	C	338	ALA
2	C	347	LYS
2	C	353	PRO
2	C	357	ILE
2	C	358	MET
2	C	364	GLU
2	C	368	LYS
2	C	369	ILE
2	C	371	GLU
2	C	379	ALA
2	C	380	ALA
2	C	398	SER
2	C	411	VAL
2	C	412	GLU
2	E	18	PRO
2	E	20	GLU
2	E	23	VAL
2	E	33	SER
2	E	39	VAL
2	E	44	VAL
2	E	62	SER
2	E	84	GLY
2	E	104	VAL
2	E	109	LYS
2	E	111	THR
2	E	112	THR
2	E	113	ALA
2	E	127	VAL
2	E	137	PRO
2	E	138	ALA
2	E	139	ALA

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Mol	Chain	Res	Type
2	E	140	TYR
2	E	141	ASP
2	E	144	LEU
2	E	145	GLN
2	E	163	PRO
2	E	165	GLU
2	E	171	VAL
2	E	172	ASP
2	E	173	ILE
2	E	203	LYS
2	E	227	TYR
2	E	246	LYS
2	E	251	ALA
2	E	256	ALA
2	E	260	VAL
2	E	261	VAL
2	E	262	ALA
2	E	274	GLU
2	E	275	LYS
2	E	281	THR
2	E	284	ALA
2	E	297	ILE
2	E	299	SER
2	E	309	GLU
2	E	314	GLN
2	E	318	GLU
2	E	323	GLY
2	E	332	VAL
2	E	336	ILE
2	E	337	ILE
2	E	338	ALA
2	E	347	LYS
2	E	353	PRO
2	E	357	ILE
2	E	358	MET
2	E	364	GLU
2	E	368	LYS
2	E	369	ILE
2	E	371	GLU
2	E	379	ALA
2	E	380	ALA
2	E	398	SER

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Mol	Chain	Res	Type
2	E	411	VAL
2	E	412	GLU
2	G	18	PRO
2	G	20	GLU
2	G	23	VAL
2	G	33	SER
2	G	39	VAL
2	G	44	VAL
2	G	62	SER
2	G	84	GLY
2	G	104	VAL
2	G	109	LYS
2	G	111	THR
2	G	112	THR
2	G	113	ALA
2	G	127	VAL
2	G	137	PRO
2	G	138	ALA
2	G	139	ALA
2	G	140	TYR
2	G	141	ASP
2	G	144	LEU
2	G	145	GLN
2	G	163	PRO
2	G	165	GLU
2	G	171	VAL
2	G	172	ASP
2	G	173	ILE
2	G	203	LYS
2	G	227	TYR
2	G	246	LYS
2	G	251	ALA
2	G	256	ALA
2	G	260	VAL
2	G	261	VAL
2	G	262	ALA
2	G	274	GLU
2	G	275	LYS
2	G	281	THR
2	G	284	ALA
2	G	297	ILE
2	G	299	SER

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Mol	Chain	Res	Type
2	G	309	GLU
2	G	314	GLN
2	G	318	GLU
2	G	323	GLY
2	G	332	VAL
2	G	336	ILE
2	G	337	ILE
2	G	338	ALA
2	G	347	LYS
2	G	353	PRO
2	G	357	ILE
2	G	358	MET
2	G	364	GLU
2	G	368	LYS
2	G	369	ILE
2	G	371	GLU
2	G	379	ALA
2	G	380	ALA
2	G	398	SER
2	G	411	VAL
2	G	412	GLU
2	A	5	ILE
2	A	25	GLU
2	A	27	ILE
2	A	43	LEU
2	A	51	ILE
2	A	64	LEU
2	A	68	GLU
2	A	79	SER
2	A	83	GLY
2	A	106	GLY
2	A	107	SER
2	A	114	GLY
2	A	118	TYR
2	A	146	LEU
2	A	149	GLN
2	A	160	ASN
2	A	164	ILE
2	A	169	LYS
2	A	170	GLY
2	A	208	VAL
2	A	210	LYS

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Mol	Chain	Res	Type
2	A	228	ASP
2	A	229	LEU
2	A	233	PHE
2	A	250	THR
2	A	254	GLY
2	A	255	GLY
2	A	270	ILE
2	A	271	GLY
2	A	276	ILE
2	A	278	GLU
2	A	293	GLY
2	A	322	GLU
2	A	346	SER
2	A	356	GLY
2	A	375	ARG
2	A	381	LEU
2	A	386	TYR
2	A	387	LYS
2	A	399	ARG
2	A	400	MET
2	A	417	LEU
2	A	426	ARG
2	A	429	LYS
2	C	5	ILE
2	C	25	GLU
2	C	27	ILE
2	C	43	LEU
2	C	51	ILE
2	C	64	LEU
2	C	68	GLU
2	C	79	SER
2	C	83	GLY
2	C	106	GLY
2	C	107	SER
2	C	114	GLY
2	C	118	TYR
2	C	146	LEU
2	C	149	GLN
2	C	160	ASN
2	C	164	ILE
2	C	169	LYS
2	C	170	GLY

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Mol	Chain	Res	Type
2	C	208	VAL
2	C	210	LYS
2	C	228	ASP
2	C	229	LEU
2	C	233	PHE
2	C	250	THR
2	C	254	GLY
2	C	255	GLY
2	C	270	ILE
2	C	271	GLY
2	C	276	ILE
2	C	278	GLU
2	C	293	GLY
2	C	322	GLU
2	C	346	SER
2	C	356	GLY
2	C	375	ARG
2	C	381	LEU
2	C	386	TYR
2	C	387	LYS
2	C	399	ARG
2	C	400	MET
2	C	417	LEU
2	C	426	ARG
2	C	429	LYS
2	E	5	ILE
2	E	25	GLU
2	E	27	ILE
2	E	43	LEU
2	E	51	ILE
2	E	64	LEU
2	E	68	GLU
2	E	79	SER
2	E	83	GLY
2	E	106	GLY
2	E	107	SER
2	E	114	GLY
2	E	118	TYR
2	E	146	LEU
2	E	149	GLN
2	E	160	ASN
2	E	164	ILE

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Mol	Chain	Res	Type
2	E	169	LYS
2	E	170	GLY
2	E	208	VAL
2	E	210	LYS
2	E	228	ASP
2	E	229	LEU
2	E	233	PHE
2	E	250	THR
2	E	254	GLY
2	E	255	GLY
2	E	270	ILE
2	E	271	GLY
2	E	276	ILE
2	E	278	GLU
2	E	293	GLY
2	E	322	GLU
2	E	344	PRO
2	E	346	SER
2	E	356	GLY
2	E	375	ARG
2	E	381	LEU
2	E	386	TYR
2	E	387	LYS
2	E	399	ARG
2	E	400	MET
2	E	417	LEU
2	E	426	ARG
2	E	429	LYS
2	G	5	ILE
2	G	25	GLU
2	G	27	ILE
2	G	43	LEU
2	G	51	ILE
2	G	64	LEU
2	G	68	GLU
2	G	79	SER
2	G	83	GLY
2	G	106	GLY
2	G	107	SER
2	G	114	GLY
2	G	118	TYR
2	G	146	LEU

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Mol	Chain	Res	Type
2	G	149	GLN
2	G	160	ASN
2	G	164	ILE
2	G	169	LYS
2	G	170	GLY
2	G	208	VAL
2	G	210	LYS
2	G	228	ASP
2	G	229	LEU
2	G	233	PHE
2	G	250	THR
2	G	254	GLY
2	G	255	GLY
2	G	270	ILE
2	G	271	GLY
2	G	276	ILE
2	G	278	GLU
2	G	293	GLY
2	G	322	GLU
2	G	346	SER
2	G	356	GLY
2	G	375	ARG
2	G	381	LEU
2	G	386	TYR
2	G	387	LYS
2	G	399	ARG
2	G	400	MET
2	G	417	LEU
2	G	426	ARG
2	G	429	LYS
2	A	3	GLU
2	A	47	LEU
2	A	48	THR
2	A	49	ALA
2	A	53	GLU
2	A	55	LEU
2	A	57	LYS
2	A	67	LYS
2	A	76	ASP
2	A	142	GLN
2	A	147	GLY
2	A	167	ALA

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Mol	Chain	Res	Type
2	A	189	ARG
2	A	196	THR
2	A	205	MET
2	A	231	SER
2	A	265	ALA
2	A	282	PHE
2	A	286	ARG
2	A	298	GLU
2	A	302	GLU
2	A	315	LYS
2	A	344	PRO
2	A	363	SER
2	A	373	LYS
2	A	413	GLU
2	C	3	GLU
2	C	47	LEU
2	C	48	THR
2	C	49	ALA
2	C	53	GLU
2	C	55	LEU
2	C	57	LYS
2	C	67	LYS
2	C	76	ASP
2	C	142	GLN
2	C	147	GLY
2	C	167	ALA
2	C	189	ARG
2	C	196	THR
2	C	205	MET
2	C	231	SER
2	C	265	ALA
2	C	282	PHE
2	C	286	ARG
2	C	298	GLU
2	C	302	GLU
2	C	315	LYS
2	C	344	PRO
2	C	363	SER
2	C	373	LYS
2	C	413	GLU
2	E	3	GLU
2	E	47	LEU

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Mol	Chain	Res	Type
2	E	48	THR
2	E	49	ALA
2	E	53	GLU
2	E	55	LEU
2	E	57	LYS
2	E	67	LYS
2	E	76	ASP
2	E	142	GLN
2	E	147	GLY
2	E	167	ALA
2	E	189	ARG
2	E	196	THR
2	E	205	MET
2	E	231	SER
2	E	265	ALA
2	E	282	PHE
2	E	286	ARG
2	E	298	GLU
2	E	302	GLU
2	E	307	LEU
2	E	308	GLU
2	E	315	LYS
2	E	363	SER
2	E	373	LYS
2	E	413	GLU
2	G	3	GLU
2	G	47	LEU
2	G	48	THR
2	G	49	ALA
2	G	53	GLU
2	G	55	LEU
2	G	57	LYS
2	G	67	LYS
2	G	76	ASP
2	G	142	GLN
2	G	147	GLY
2	G	167	ALA
2	G	189	ARG
2	G	196	THR
2	G	205	MET
2	G	231	SER
2	G	265	ALA

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Mol	Chain	Res	Type
2	G	282	PHE
2	G	286	ARG
2	G	298	GLU
2	G	302	GLU
2	G	315	LYS
2	G	344	PRO
2	G	363	SER
2	G	373	LYS
2	G	413	GLU
2	A	50	LYS
2	A	69	TRP
2	A	72	SER
2	A	117	ALA
2	A	226	ALA
2	A	263	THR
2	A	285	LYS
2	A	307	LEU
2	A	313	ILE
2	A	320	VAL
2	A	354	GLY
2	A	416	GLU
2	A	428	LEU
2	C	50	LYS
2	C	69	TRP
2	C	72	SER
2	C	117	ALA
2	C	226	ALA
2	C	263	THR
2	C	285	LYS
2	C	307	LEU
2	C	313	ILE
2	C	320	VAL
2	C	354	GLY
2	C	416	GLU
2	C	428	LEU
2	E	50	LYS
2	E	69	TRP
2	E	72	SER
2	E	117	ALA
2	E	226	ALA
2	E	263	THR
2	E	285	LYS

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Mol	Chain	Res	Type
2	E	313	ILE
2	E	320	VAL
2	E	354	GLY
2	E	416	GLU
2	E	428	LEU
2	G	50	LYS
2	G	69	TRP
2	G	72	SER
2	G	117	ALA
2	G	226	ALA
2	G	263	THR
2	G	285	LYS
2	G	307	LEU
2	G	313	ILE
2	G	320	VAL
2	G	354	GLY
2	G	416	GLU
2	G	428	LEU
2	A	110	THR
2	A	272	THR
2	A	288	VAL
2	A	308	GLU
2	A	339	LEU
2	A	418	LEU
2	A	424	MET
2	C	110	THR
2	C	272	THR
2	C	288	VAL
2	C	339	LEU
2	C	418	LEU
2	C	424	MET
2	E	110	THR
2	E	272	THR
2	E	288	VAL
2	E	339	LEU
2	E	418	LEU
2	E	424	MET
2	G	110	THR
2	G	272	THR
2	G	288	VAL
2	G	308	GLU
2	G	339	LEU

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Mol	Chain	Res	Type
2	G	418	LEU
2	G	424	MET
2	A	70	PHE
2	A	166	ILE
2	A	258	SER
2	A	351	HIS
2	A	362	PRO
2	A	394	ILE
2	C	70	PHE
2	C	166	ILE
2	C	258	SER
2	C	351	HIS
2	C	362	PRO
2	C	394	ILE
2	E	70	PHE
2	E	166	ILE
2	E	258	SER
2	E	351	HIS
2	E	362	PRO
2	E	394	ILE
2	G	70	PHE
2	G	166	ILE
2	G	258	SER
2	G	351	HIS
2	G	362	PRO
2	G	394	ILE
2	A	9	VAL
2	C	9	VAL
2	E	9	VAL
2	G	9	VAL
2	A	154	VAL
2	A	162	ASN
2	A	253	GLY
2	C	154	VAL
2	C	162	ASN
2	C	253	GLY
2	E	154	VAL
2	E	162	ASN
2	E	253	GLY
2	G	154	VAL
2	G	162	ASN
2	G	253	GLY

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Mol	Chain	Res	Type
2	A	74	VAL
2	C	74	VAL
2	C	158	PRO
2	E	74	VAL
2	G	74	VAL
2	G	158	PRO
2	A	158	PRO
2	A	300	ILE
2	E	158	PRO
2	E	300	ILE
2	G	300	ILE
2	A	71	ILE
2	C	71	ILE
2	C	300	ILE
2	E	71	ILE
2	G	71	ILE

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	
2	A	370/377 (98%)	270 (73%)	100 (27%)	0	3
2	C	370/377 (98%)	269 (73%)	101 (27%)	0	3
2	E	370/377 (98%)	269 (73%)	101 (27%)	0	3
2	G	370/377 (98%)	270 (73%)	100 (27%)	0	3
All	All	1480/1508 (98%)	1078 (73%)	402 (27%)	0	3

All (402) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	A	1	MET
2	A	5	ILE
2	A	6	ARG
2	A	7	ASP
2	A	14	THR

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Mol	Chain	Res	Type
2	A	30	LEU
2	A	31	GLN
2	A	34	LEU
2	A	41	VAL
2	A	42	LYS
2	A	43	LEU
2	A	53	GLU
2	A	59	LYS
2	A	64	LEU
2	A	65	GLU
2	A	66	ARG
2	A	69	TRP
2	A	75	TYR
2	A	77	GLU
2	A	81	LEU
2	A	89	ASN
2	A	94	LYS
2	A	97	PHE
2	A	99	ILE
2	A	101	LEU
2	A	109	LYS
2	A	110	THR
2	A	116	LEU
2	A	118	TYR
2	A	119	PHE
2	A	123	ARG
2	A	129	LEU
2	A	140	TYR
2	A	141	ASP
2	A	142	GLN
2	A	143	LEU
2	A	144	LEU
2	A	146	LEU
2	A	149	GLN
2	A	160	ASN
2	A	173	ILE
2	A	174	PHE
2	A	177	ASN
2	A	179	MET
2	A	184	VAL
2	A	194	GLU
2	A	196	THR

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Mol	Chain	Res	Type
2	A	199	LEU
2	A	202	MET
2	A	209	LEU
2	A	212	ASP
2	A	216	LEU
2	A	218	ILE
2	A	221	SER
2	A	228	ASP
2	A	229	LEU
2	A	233	PHE
2	A	237	SER
2	A	250	THR
2	A	266	THR
2	A	277	ASP
2	A	285	LYS
2	A	291	ILE
2	A	292	LEU
2	A	300	ILE
2	A	302	GLU
2	A	311	ASP
2	A	315	LYS
2	A	316	LYS
2	A	319	ASP
2	A	321	MET
2	A	327	LEU
2	A	330	ARG
2	A	333	TYR
2	A	339	LEU
2	A	350	GLN
2	A	351	HIS
2	A	353	PRO
2	A	357	ILE
2	A	358	MET
2	A	362	PRO
2	A	374	ILE
2	A	377	TRP
2	A	381	LEU
2	A	389	LEU
2	A	390	GLU
2	A	393	ASN
2	A	399	ARG
2	A	400	MET

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Mol	Chain	Res	Type
2	A	402	ARG
2	A	419	GLU
2	A	420	TRP
2	A	421	TYR
2	A	424	MET
2	A	425	ASN
2	A	426	ARG
2	A	427	LEU
2	A	428	LEU
2	A	429	LYS
2	A	430	MET
2	C	1	MET
2	C	5	ILE
2	C	6	ARG
2	C	7	ASP
2	C	14	THR
2	C	30	LEU
2	C	31	GLN
2	C	34	LEU
2	C	41	VAL
2	C	42	LYS
2	C	43	LEU
2	C	53	GLU
2	C	59	LYS
2	C	64	LEU
2	C	65	GLU
2	C	66	ARG
2	C	69	TRP
2	C	75	TYR
2	C	77	GLU
2	C	81	LEU
2	C	89	ASN
2	C	94	LYS
2	C	97	PHE
2	C	99	ILE
2	C	101	LEU
2	C	109	LYS
2	C	110	THR
2	C	116	LEU
2	C	118	TYR
2	C	119	PHE
2	C	123	ARG

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Mol	Chain	Res	Type
2	C	129	LEU
2	C	140	TYR
2	C	141	ASP
2	C	142	GLN
2	C	143	LEU
2	C	144	LEU
2	C	146	LEU
2	C	149	GLN
2	C	160	ASN
2	C	173	ILE
2	C	174	PHE
2	C	177	ASN
2	C	179	MET
2	C	184	VAL
2	C	194	GLU
2	C	196	THR
2	C	199	LEU
2	C	202	MET
2	C	209	LEU
2	C	212	ASP
2	C	216	LEU
2	C	218	ILE
2	C	221	SER
2	C	228	ASP
2	C	229	LEU
2	C	233	PHE
2	C	237	SER
2	C	250	THR
2	C	266	THR
2	C	277	ASP
2	C	285	LYS
2	C	291	ILE
2	C	292	LEU
2	C	300	ILE
2	C	302	GLU
2	C	308	GLU
2	C	311	ASP
2	C	315	LYS
2	C	316	LYS
2	C	319	ASP
2	C	321	MET
2	C	327	LEU

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Mol	Chain	Res	Type
2	C	330	ARG
2	C	333	TYR
2	C	339	LEU
2	C	350	GLN
2	C	351	HIS
2	C	353	PRO
2	C	357	ILE
2	C	358	MET
2	C	362	PRO
2	C	374	ILE
2	C	377	TRP
2	C	381	LEU
2	C	389	LEU
2	C	390	GLU
2	C	393	ASN
2	C	399	ARG
2	C	400	MET
2	C	402	ARG
2	C	419	GLU
2	C	420	TRP
2	C	421	TYR
2	C	424	MET
2	C	425	ASN
2	C	426	ARG
2	C	427	LEU
2	C	428	LEU
2	C	429	LYS
2	C	430	MET
2	E	1	MET
2	E	5	ILE
2	E	6	ARG
2	E	7	ASP
2	E	14	THR
2	E	30	LEU
2	E	31	GLN
2	E	34	LEU
2	E	41	VAL
2	E	42	LYS
2	E	43	LEU
2	E	53	GLU
2	E	59	LYS
2	E	64	LEU

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Mol	Chain	Res	Type
2	E	65	GLU
2	E	66	ARG
2	E	69	TRP
2	E	75	TYR
2	E	77	GLU
2	E	81	LEU
2	E	89	ASN
2	E	94	LYS
2	E	97	PHE
2	E	99	ILE
2	E	101	LEU
2	E	109	LYS
2	E	110	THR
2	E	116	LEU
2	E	118	TYR
2	E	119	PHE
2	E	123	ARG
2	E	129	LEU
2	E	140	TYR
2	E	141	ASP
2	E	142	GLN
2	E	143	LEU
2	E	144	LEU
2	E	146	LEU
2	E	149	GLN
2	E	160	ASN
2	E	173	ILE
2	E	174	PHE
2	E	177	ASN
2	E	179	MET
2	E	184	VAL
2	E	194	GLU
2	E	196	THR
2	E	199	LEU
2	E	202	MET
2	E	209	LEU
2	E	212	ASP
2	E	216	LEU
2	E	218	ILE
2	E	221	SER
2	E	228	ASP
2	E	229	LEU

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Mol	Chain	Res	Type
2	E	233	PHE
2	E	237	SER
2	E	250	THR
2	E	266	THR
2	E	277	ASP
2	E	285	LYS
2	E	291	ILE
2	E	292	LEU
2	E	300	ILE
2	E	302	GLU
2	E	310	TYR
2	E	311	ASP
2	E	315	LYS
2	E	316	LYS
2	E	319	ASP
2	E	321	MET
2	E	327	LEU
2	E	330	ARG
2	E	333	TYR
2	E	339	LEU
2	E	350	GLN
2	E	351	HIS
2	E	353	PRO
2	E	357	ILE
2	E	358	MET
2	E	362	PRO
2	E	374	ILE
2	E	377	TRP
2	E	381	LEU
2	E	389	LEU
2	E	390	GLU
2	E	393	ASN
2	E	399	ARG
2	E	400	MET
2	E	402	ARG
2	E	419	GLU
2	E	420	TRP
2	E	421	TYR
2	E	424	MET
2	E	425	ASN
2	E	426	ARG
2	E	427	LEU

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Mol	Chain	Res	Type
2	E	428	LEU
2	E	429	LYS
2	E	430	MET
2	G	1	MET
2	G	5	ILE
2	G	6	ARG
2	G	7	ASP
2	G	14	THR
2	G	30	LEU
2	G	31	GLN
2	G	34	LEU
2	G	41	VAL
2	G	42	LYS
2	G	43	LEU
2	G	53	GLU
2	G	59	LYS
2	G	64	LEU
2	G	65	GLU
2	G	66	ARG
2	G	69	TRP
2	G	75	TYR
2	G	77	GLU
2	G	81	LEU
2	G	89	ASN
2	G	94	LYS
2	G	97	PHE
2	G	99	ILE
2	G	101	LEU
2	G	109	LYS
2	G	110	THR
2	G	116	LEU
2	G	118	TYR
2	G	119	PHE
2	G	123	ARG
2	G	129	LEU
2	G	140	TYR
2	G	141	ASP
2	G	142	GLN
2	G	143	LEU
2	G	144	LEU
2	G	146	LEU
2	G	149	GLN

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Mol	Chain	Res	Type
2	G	160	ASN
2	G	173	ILE
2	G	174	PHE
2	G	177	ASN
2	G	179	MET
2	G	184	VAL
2	G	194	GLU
2	G	196	THR
2	G	199	LEU
2	G	202	MET
2	G	209	LEU
2	G	212	ASP
2	G	216	LEU
2	G	218	ILE
2	G	221	SER
2	G	228	ASP
2	G	229	LEU
2	G	233	PHE
2	G	237	SER
2	G	250	THR
2	G	266	THR
2	G	277	ASP
2	G	285	LYS
2	G	291	ILE
2	G	292	LEU
2	G	300	ILE
2	G	302	GLU
2	G	311	ASP
2	G	315	LYS
2	G	316	LYS
2	G	319	ASP
2	G	321	MET
2	G	327	LEU
2	G	330	ARG
2	G	333	TYR
2	G	339	LEU
2	G	350	GLN
2	G	351	HIS
2	G	353	PRO
2	G	357	ILE
2	G	358	MET
2	G	362	PRO

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Mol	Chain	Res	Type
2	G	374	ILE
2	G	377	TRP
2	G	381	LEU
2	G	389	LEU
2	G	390	GLU
2	G	393	ASN
2	G	399	ARG
2	G	400	MET
2	G	402	ARG
2	G	419	GLU
2	G	420	TRP
2	G	421	TYR
2	G	424	MET
2	G	425	ASN
2	G	426	ARG
2	G	427	LEU
2	G	428	LEU
2	G	429	LYS
2	G	430	MET

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (58) such sidechains are listed below:

Mol	Chain	Res	Type
2	A	31	GLN
2	A	89	ASN
2	A	105	GLN
2	A	153	GLN
2	A	159	ASN
2	A	161	GLN
2	A	177	ASN
2	A	234	HIS
2	A	235	GLN
2	A	283	ASN
2	A	335	GLN
2	A	350	GLN
2	A	351	HIS
2	A	425	ASN
2	C	31	GLN
2	C	89	ASN
2	C	105	GLN
2	C	153	GLN
2	C	159	ASN

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Mol	Chain	Res	Type
2	C	161	GLN
2	C	162	ASN
2	C	177	ASN
2	C	234	HIS
2	C	235	GLN
2	C	283	ASN
2	C	335	GLN
2	C	350	GLN
2	C	351	HIS
2	C	425	ASN
2	E	31	GLN
2	E	89	ASN
2	E	105	GLN
2	E	153	GLN
2	E	159	ASN
2	E	161	GLN
2	E	162	ASN
2	E	177	ASN
2	E	234	HIS
2	E	235	GLN
2	E	283	ASN
2	E	335	GLN
2	E	350	GLN
2	E	351	HIS
2	E	425	ASN
2	G	31	GLN
2	G	89	ASN
2	G	105	GLN
2	G	153	GLN
2	G	159	ASN
2	G	161	GLN
2	G	177	ASN
2	G	234	HIS
2	G	235	GLN
2	G	283	ASN
2	G	335	GLN
2	G	350	GLN
2	G	351	HIS
2	G	425	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	B	46/47 (97%)	31 (67%)	3 (6%)
1	D	46/47 (97%)	31 (67%)	3 (6%)
1	F	46/47 (97%)	31 (67%)	3 (6%)
1	H	46/47 (97%)	31 (67%)	3 (6%)
All	All	184/188 (97%)	124 (67%)	12 (6%)

All (124) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	B	181	C
1	B	182	C
1	B	184	G
1	B	185	G
1	B	186	G
1	B	187	G
1	B	188	A
1	B	189	A
1	B	191	C
1	B	192	G
1	B	193	G
1	B	195	C
1	B	197	G
1	B	198	G
1	B	199	C
1	B	204	A
1	B	206	G
1	B	208	G
1	B	209	A
1	B	211	C
1	B	212	A
1	B	213	A
1	B	216	G
1	B	217	U
1	B	218	G
1	B	219	C
1	B	220	C
1	B	221	C
1	B	223	G
1	B	224	U
1	B	225	CCC
1	D	181	C
1	D	182	C
1	D	184	G

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Mol	Chain	Res	Type
1	D	185	G
1	D	186	G
1	D	187	G
1	D	188	A
1	D	189	A
1	D	191	C
1	D	192	G
1	D	193	G
1	D	195	C
1	D	197	G
1	D	198	G
1	D	199	C
1	D	204	A
1	D	206	G
1	D	208	G
1	D	209	A
1	D	211	C
1	D	212	A
1	D	213	A
1	D	216	G
1	D	217	U
1	D	218	G
1	D	219	C
1	D	220	C
1	D	221	C
1	D	223	G
1	D	224	U
1	D	225	CCC
1	F	181	C
1	F	182	C
1	F	184	G
1	F	185	G
1	F	186	G
1	F	187	G
1	F	188	A
1	F	189	A
1	F	191	C
1	F	192	G
1	F	193	G
1	F	195	C
1	F	197	G
1	F	198	G

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Mol	Chain	Res	Type
1	F	199	C
1	F	204	A
1	F	206	G
1	F	208	G
1	F	209	A
1	F	211	C
1	F	212	A
1	F	213	A
1	F	216	G
1	F	217	U
1	F	218	G
1	F	219	C
1	F	220	C
1	F	221	C
1	F	223	G
1	F	224	U
1	F	225	CCC
1	H	181	C
1	H	182	C
1	H	184	G
1	H	185	G
1	H	186	G
1	H	187	G
1	H	188	A
1	H	189	A
1	H	191	C
1	H	192	G
1	H	193	G
1	H	195	C
1	H	197	G
1	H	198	G
1	H	199	C
1	H	204	A
1	H	206	G
1	H	208	G
1	H	209	A
1	H	211	C
1	H	212	A
1	H	213	A
1	H	216	G
1	H	217	U
1	H	218	G

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Mol	Chain	Res	Type
1	H	219	C
1	H	220	C
1	H	221	C
1	H	223	G
1	H	224	U
1	H	225	CCC

All (12) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	B	179	GTP
1	B	210	G
1	B	217	U
1	D	179	GTP
1	D	210	G
1	D	217	U
1	F	179	GTP
1	F	210	G
1	F	217	U
1	H	179	GTP
1	H	210	G
1	H	217	U

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

8 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
1	CCC	H	225	1	16,25,26	0.94	0	18,38,41	1.80	5 (27%)
1	CCC	F	225	1	16,25,26	0.95	0	18,38,41	1.81	5 (27%)
1	CCC	D	225	1	16,25,26	0.94	0	18,38,41	1.81	5 (27%)
1	CCC	B	225	1	16,25,26	0.94	0	18,38,41	1.81	5 (27%)
1	GTP	H	179	1	26,34,34	1.44	3 (11%)	33,54,54	2.85	12 (36%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	GTP	D	179	1	26,34,34	1.44	3 (11%)	33,54,54	2.84	12 (36%)
1	GTP	F	179	1	26,34,34	1.44	3 (11%)	33,54,54	2.85	12 (36%)
1	GTP	B	179	1	26,34,34	1.44	3 (11%)	33,54,54	2.84	12 (36%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	CCC	H	225	1	-	3/5/35/36	0/3/3/3
1	CCC	F	225	1	-	3/5/35/36	0/3/3/3
1	CCC	D	225	1	-	3/5/35/36	0/3/3/3
1	CCC	B	225	1	-	3/5/35/36	0/3/3/3
1	GTP	H	179	1	1/1/7/7	4/18/38/38	0/3/3/3
1	GTP	D	179	1	1/1/7/7	4/18/38/38	0/3/3/3
1	GTP	F	179	1	1/1/7/7	4/18/38/38	0/3/3/3
1	GTP	B	179	1	1/1/7/7	4/18/38/38	0/3/3/3

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	179	GTP	C6-N1	4.20	1.40	1.33
1	B	179	GTP	C6-N1	4.20	1.40	1.33
1	F	179	GTP	C6-N1	4.18	1.40	1.33
1	H	179	GTP	C6-N1	4.17	1.40	1.33
1	H	179	GTP	PG-O1G	3.02	1.60	1.50
1	F	179	GTP	PG-O1G	3.02	1.60	1.50
1	B	179	GTP	PG-O1G	3.02	1.60	1.50
1	D	179	GTP	PG-O1G	3.01	1.60	1.50
1	H	179	GTP	C6-C5	2.70	1.46	1.41
1	B	179	GTP	C6-C5	2.69	1.46	1.41
1	D	179	GTP	C6-C5	2.65	1.45	1.41
1	F	179	GTP	C6-C5	2.64	1.45	1.41

All (68) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	179	GTP	C5-C6-N1	-8.81	111.38	123.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	179	GTP	C5-C6-N1	-8.81	111.38	123.43
1	H	179	GTP	C5-C6-N1	-8.80	111.39	123.43
1	F	179	GTP	C5-C6-N1	-8.80	111.39	123.43
1	F	179	GTP	PA-O3A-PB	-6.49	110.54	132.83
1	B	179	GTP	PA-O3A-PB	-6.49	110.57	132.83
1	D	179	GTP	PA-O3A-PB	-6.48	110.58	132.83
1	H	179	GTP	PA-O3A-PB	-6.48	110.60	132.83
1	B	179	GTP	O3G-PG-O2G	6.43	132.21	107.64
1	D	179	GTP	O3G-PG-O2G	6.43	132.20	107.64
1	F	179	GTP	O3G-PG-O2G	6.43	132.20	107.64
1	H	179	GTP	O3G-PG-O2G	6.42	132.19	107.64
1	F	179	GTP	C6-N1-C2	5.76	125.08	115.93
1	D	179	GTP	C6-N1-C2	5.76	125.08	115.93
1	H	179	GTP	C6-N1-C2	5.75	125.06	115.93
1	B	179	GTP	C6-N1-C2	5.74	125.06	115.93
1	B	225	CCC	C2-N3-C4	3.68	120.07	116.34
1	D	225	CCC	C2-N3-C4	3.66	120.05	116.34
1	F	225	CCC	C2-N3-C4	3.65	120.04	116.34
1	H	225	CCC	C2-N3-C4	3.65	120.04	116.34
1	B	225	CCC	O2'-C2'-C3'	3.58	111.65	105.08
1	F	225	CCC	O2'-C2'-C3'	3.58	111.64	105.08
1	H	225	CCC	O2'-C2'-C3'	3.57	111.63	105.08
1	D	225	CCC	O2'-C2'-C3'	3.57	111.62	105.08
1	F	225	CCC	O3'-PC-O1C	-3.36	106.90	115.76
1	B	225	CCC	O3'-PC-O1C	-3.35	106.92	115.76
1	D	225	CCC	O3'-PC-O1C	-3.35	106.92	115.76
1	H	225	CCC	O3'-PC-O1C	-3.34	106.94	115.76
1	D	225	CCC	O2C-PC-O1C	3.19	120.20	109.89
1	F	225	CCC	O2C-PC-O1C	3.19	120.19	109.89
1	B	225	CCC	O2C-PC-O1C	3.18	120.17	109.89
1	H	225	CCC	O2C-PC-O1C	3.18	120.16	109.89
1	D	179	GTP	PB-O3B-PG	-3.11	122.15	132.83
1	H	179	GTP	PB-O3B-PG	-3.10	122.19	132.83
1	F	179	GTP	PB-O3B-PG	-3.10	122.19	132.83
1	B	179	GTP	PB-O3B-PG	-3.10	122.19	132.83
1	H	179	GTP	O2G-PG-O1G	-2.89	99.38	110.68
1	D	179	GTP	O2G-PG-O1G	-2.89	99.39	110.68
1	B	179	GTP	O2G-PG-O1G	-2.88	99.40	110.68
1	F	179	GTP	O2G-PG-O1G	-2.88	99.41	110.68
1	F	179	GTP	O3G-PG-O1G	-2.67	100.21	110.68
1	H	179	GTP	O3G-PG-O1G	-2.67	100.23	110.68
1	D	179	GTP	O3G-PG-O1G	-2.67	100.23	110.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	179	GTP	O3G-PG-O1G	-2.67	100.24	110.68
1	H	179	GTP	C2-N3-C4	-2.59	112.40	115.36
1	B	179	GTP	C2-N3-C4	-2.57	112.42	115.36
1	D	179	GTP	C2-N3-C4	-2.57	112.42	115.36
1	F	179	GTP	C2-N3-C4	-2.56	112.43	115.36
1	H	179	GTP	C6-C5-C4	-2.50	118.41	120.80
1	B	179	GTP	C6-C5-C4	-2.47	118.44	120.80
1	B	225	CCC	O3'-C3'-C2'	-2.46	100.57	105.08
1	F	179	GTP	C6-C5-C4	-2.46	118.45	120.80
1	F	225	CCC	O3'-C3'-C2'	-2.45	100.58	105.08
1	D	225	CCC	O3'-C3'-C2'	-2.44	100.60	105.08
1	H	225	CCC	O3'-C3'-C2'	-2.44	100.60	105.08
1	D	179	GTP	C6-C5-C4	-2.43	118.48	120.80
1	F	179	GTP	O3B-PG-O1G	-2.39	97.93	111.19
1	D	179	GTP	O3B-PG-O1G	-2.39	97.94	111.19
1	B	179	GTP	O3B-PG-O1G	-2.39	97.95	111.19
1	F	179	GTP	N3-C2-N1	-2.38	124.04	127.22
1	H	179	GTP	O3B-PG-O1G	-2.38	97.99	111.19
1	H	179	GTP	N3-C2-N1	-2.35	124.09	127.22
1	D	179	GTP	N3-C2-N1	-2.34	124.10	127.22
1	B	179	GTP	N3-C2-N1	-2.34	124.11	127.22
1	F	179	GTP	O3'-C3'-C4'	-2.08	105.02	111.05
1	D	179	GTP	O3'-C3'-C4'	-2.08	105.04	111.05
1	B	179	GTP	O3'-C3'-C4'	-2.07	105.06	111.05
1	H	179	GTP	O3'-C3'-C4'	-2.07	105.06	111.05

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	H	179	GTP	C3'
1	D	179	GTP	C3'
1	F	179	GTP	C3'
1	B	179	GTP	C3'

All (28) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	H	225	CCC	O4'-C4'-C5'-O5'
1	F	225	CCC	O4'-C4'-C5'-O5'
1	D	225	CCC	O4'-C4'-C5'-O5'
1	B	225	CCC	O4'-C4'-C5'-O5'
1	H	179	GTP	C5'-O5'-PA-O3A

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Mol	Chain	Res	Type	Atoms
1	H	179	GTP	C5'-O5'-PA-O1A
1	D	179	GTP	C5'-O5'-PA-O3A
1	D	179	GTP	C5'-O5'-PA-O1A
1	F	179	GTP	C5'-O5'-PA-O3A
1	F	179	GTP	C5'-O5'-PA-O1A
1	B	179	GTP	C5'-O5'-PA-O3A
1	B	179	GTP	C5'-O5'-PA-O1A
1	H	225	CCC	C3'-C4'-C5'-O5'
1	F	225	CCC	C3'-C4'-C5'-O5'
1	D	225	CCC	C3'-C4'-C5'-O5'
1	B	225	CCC	C3'-C4'-C5'-O5'
1	H	179	GTP	C4'-C5'-O5'-PA
1	D	179	GTP	C4'-C5'-O5'-PA
1	F	179	GTP	C4'-C5'-O5'-PA
1	B	179	GTP	C4'-C5'-O5'-PA
1	H	179	GTP	PB-O3B-PG-O3G
1	D	179	GTP	PB-O3B-PG-O3G
1	F	179	GTP	PB-O3B-PG-O3G
1	B	179	GTP	PB-O3B-PG-O3G
1	H	225	CCC	C4'-C5'-O5'-P
1	F	225	CCC	C4'-C5'-O5'-P
1	D	225	CCC	C4'-C5'-O5'-P
1	B	225	CCC	C4'-C5'-O5'-P

There are no ring outliers.

8 monomers are involved in 12 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	H	225	CCC	1	0
1	F	225	CCC	1	0
1	D	225	CCC	1	0
1	B	225	CCC	1	0
1	H	179	GTP	2	0
1	D	179	GTP	2	0
1	F	179	GTP	2	0
1	B	179	GTP	2	0

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	B	45/47 (95%)	-0.26	0 100 100	71, 71, 71, 71	0
1	D	45/47 (95%)	-0.22	0 100 100	71, 71, 71, 71	0
1	F	45/47 (95%)	-0.27	0 100 100	71, 71, 71, 71	0
1	H	45/47 (95%)	-0.31	0 100 100	71, 71, 71, 71	0
2	A	432/440 (98%)	-0.66	0 100 100	71, 71, 71, 71	0
2	C	432/440 (98%)	-0.66	3 (0%) 87 82	71, 71, 71, 71	0
2	E	432/440 (98%)	-0.66	2 (0%) 91 85	71, 71, 71, 71	0
2	G	432/440 (98%)	-0.65	0 100 100	71, 71, 71, 71	0
All	All	1908/1948 (97%)	-0.62	5 (0%) 94 90	71, 71, 71, 71	0

All (5) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	C	323	GLY	3.1
2	E	318	GLU	2.7
2	C	318	GLU	2.3
2	C	322	GLU	2.1
2	E	322	GLU	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled ‘Q< 0.9’ lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
1	CCC	B	225	23/24	0.84	0.23	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
1	CCC	H	225	23/24	0.88	0.27	70,70,70,70	0
1	CCC	D	225	23/24	0.89	0.23	70,70,70,70	0
1	GTP	D	179	32/32	0.89	0.14	70,70,70,70	0
1	CCC	F	225	23/24	0.91	0.25	70,70,70,70	0
1	GTP	F	179	32/32	0.92	0.12	70,70,70,70	0
1	GTP	H	179	32/32	0.93	0.12	70,70,70,70	0
1	GTP	B	179	32/32	0.93	0.11	70,70,70,70	0

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

There are no ligands in this entry.

6.5 Other polymers [i](#)

There are no such residues in this entry.