



Full wwPDB EM Validation Report ⓘ

Nov 8, 2022 – 06:00 pm GMT

PDB ID : 7Q55
EMDB ID : EMD-13826
Title : Single Particle Cryo-EM structure of photosynthetic A8B8 glyceraldehyde -3-phosphate dehydrogenase hexadecamer (major conformer) from *Spinacia oleracea*.
Authors : Marotta, R.; Fermani, S.; Sparla, F.; Trost, P.; Del Giudice, A.
Deposited on : 2021-11-02
Resolution : 5.70 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43
Mogul : 1.8.4, CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

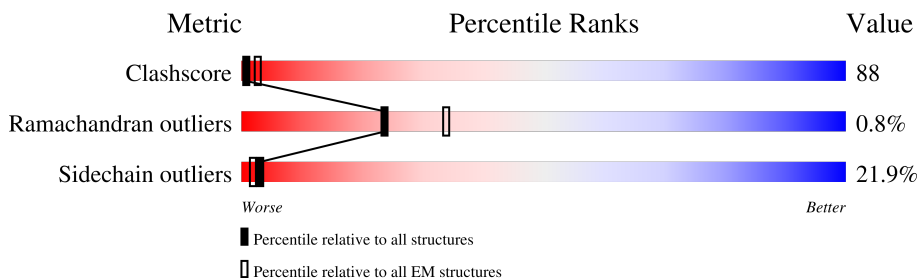
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 5.70 Å.

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




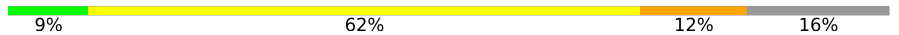
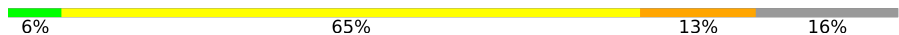



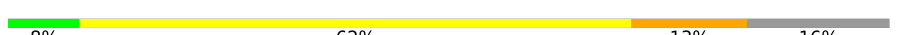
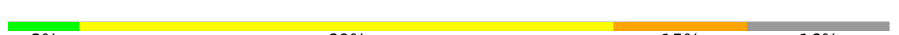
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	451	
1	C	451	
1	E	451	
1	G	451	
1	I	451	
1	K	451	
1	O	451	
1	Q	451	

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Mol	Chain	Length	Quality of chain				
2	B	402		8%	61%	15%	16%
2	D	402		9%	62%	12%	16%
2	F	402		6%	65%	13%	16%
2	H	402		8%	61%	14%	16%
2	J	402		8%	62%	13%	16%
2	L	402		10%	60%	14%	16%
2	P	402		8%	62%	13%	16%
2	R	402		8%	60%	15%	16%

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 42608 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	O	368	2694	1700	473	510	11	0	0
1	Q	368	2694	1700	473	510	11	0	0
1	A	368	2694	1700	473	510	11	0	0
1	C	368	2694	1700	473	510	11	0	0
1	E	368	2694	1700	473	510	11	0	0
1	G	368	2694	1700	473	510	11	0	0
1	I	368	2694	1700	473	510	11	0	0
1	K	368	2694	1700	473	510	11	0	0

- Molecule 2 is a protein called Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	P	337	2544	1600	445	488	11	0	0
2	R	337	2544	1600	445	488	11	0	0
2	B	337	2544	1600	445	488	11	0	0
2	D	337	2544	1600	445	488	11	0	0
2	F	337	2544	1600	445	488	11	0	0
2	H	337	2544	1600	445	488	11	0	0
2	J	337	2544	1600	445	488	11	0	0

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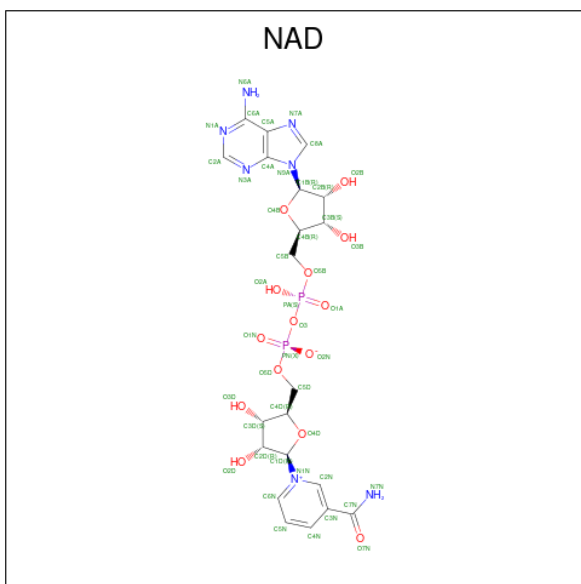
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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	L	337	2544	1600	445	488	11	0	0

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
P	334	UNK	-	insertion	UNP P19866
R	334	UNK	-	insertion	UNP P19866
B	334	UNK	-	insertion	UNP P19866
D	334	UNK	-	insertion	UNP P19866
F	334	UNK	-	insertion	UNP P19866
H	334	UNK	-	insertion	UNP P19866
J	334	UNK	-	insertion	UNP P19866
L	334	UNK	-	insertion	UNP P19866

- Molecule 3 is NICOTINAMIDE-ADENINE-DINUCLEOTIDE (three-letter code: NAD) (formula: $C_{21}H_{27}N_7O_{14}P_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
3	O	1	44	21	7	14	2	0
3	P	1	44	21	7	14	2	0
3	Q	1	44	21	7	14	2	0
3	R	1	44	21	7	14	2	0

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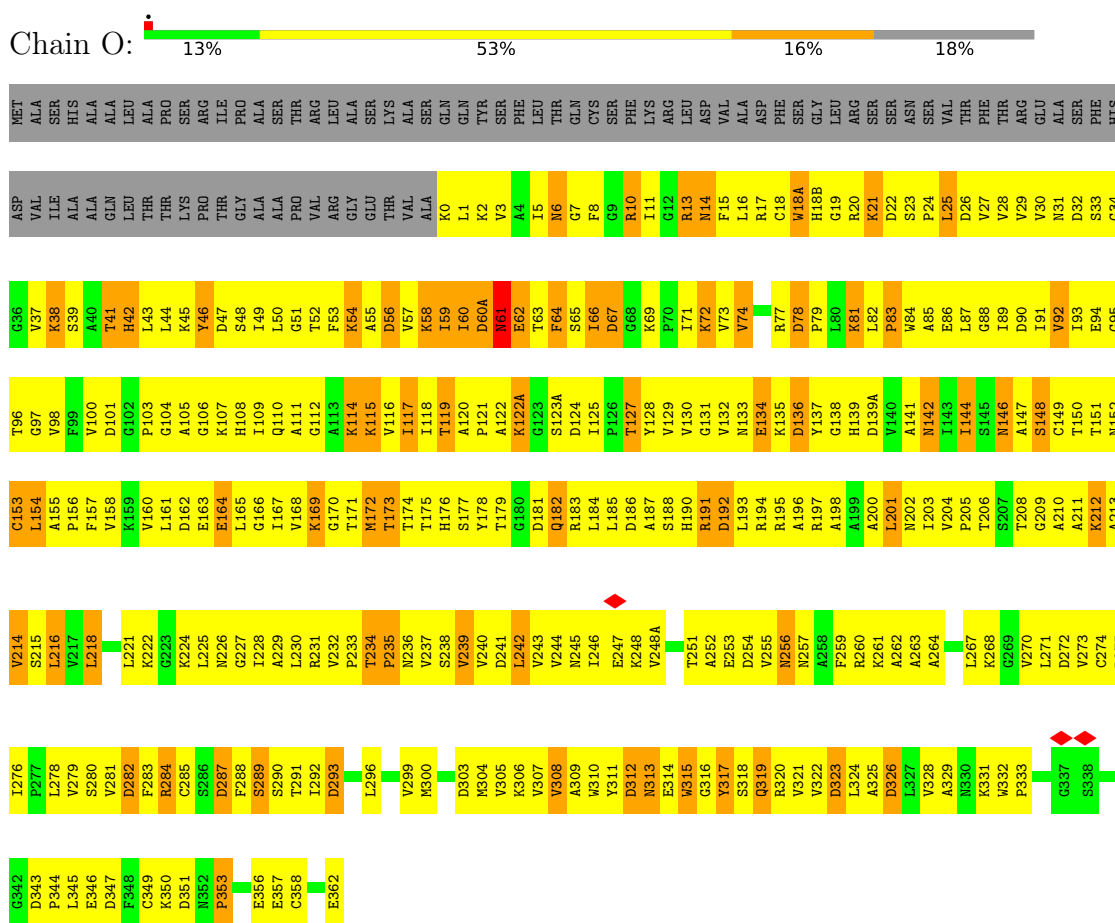
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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
3	A	1	Total 44	C 21	N 7	O 14	P 2	0
3	B	1	Total 44	C 21	N 7	O 14	P 2	0
3	C	1	Total 44	C 21	N 7	O 14	P 2	0
3	D	1	Total 44	C 21	N 7	O 14	P 2	0
3	E	1	Total 44	C 21	N 7	O 14	P 2	0
3	F	1	Total 44	C 21	N 7	O 14	P 2	0
3	G	1	Total 44	C 21	N 7	O 14	P 2	0
3	H	1	Total 44	C 21	N 7	O 14	P 2	0
3	I	1	Total 44	C 21	N 7	O 14	P 2	0
3	J	1	Total 44	C 21	N 7	O 14	P 2	0
3	K	1	Total 44	C 21	N 7	O 14	P 2	0
3	L	1	Total 44	C 21	N 7	O 14	P 2	0

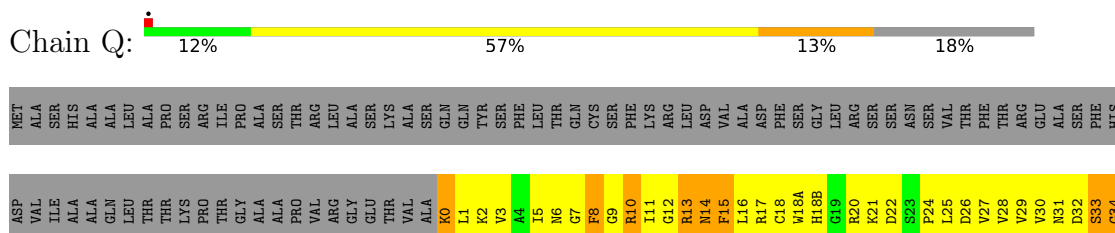
3 Residue-property plots

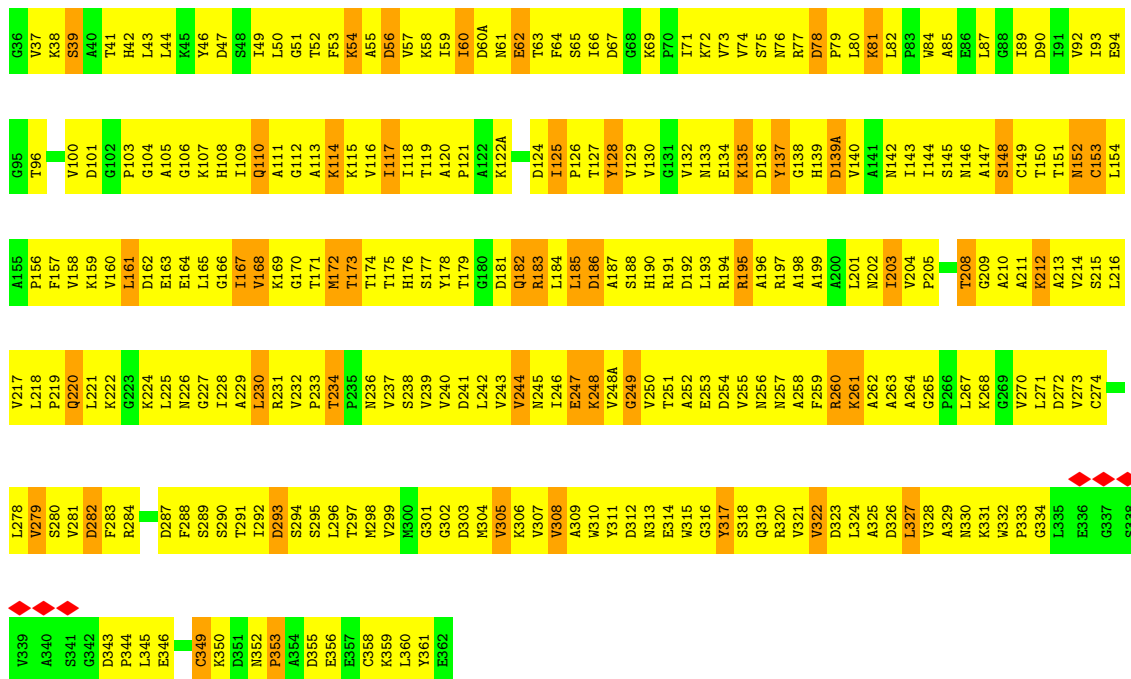
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

- Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic

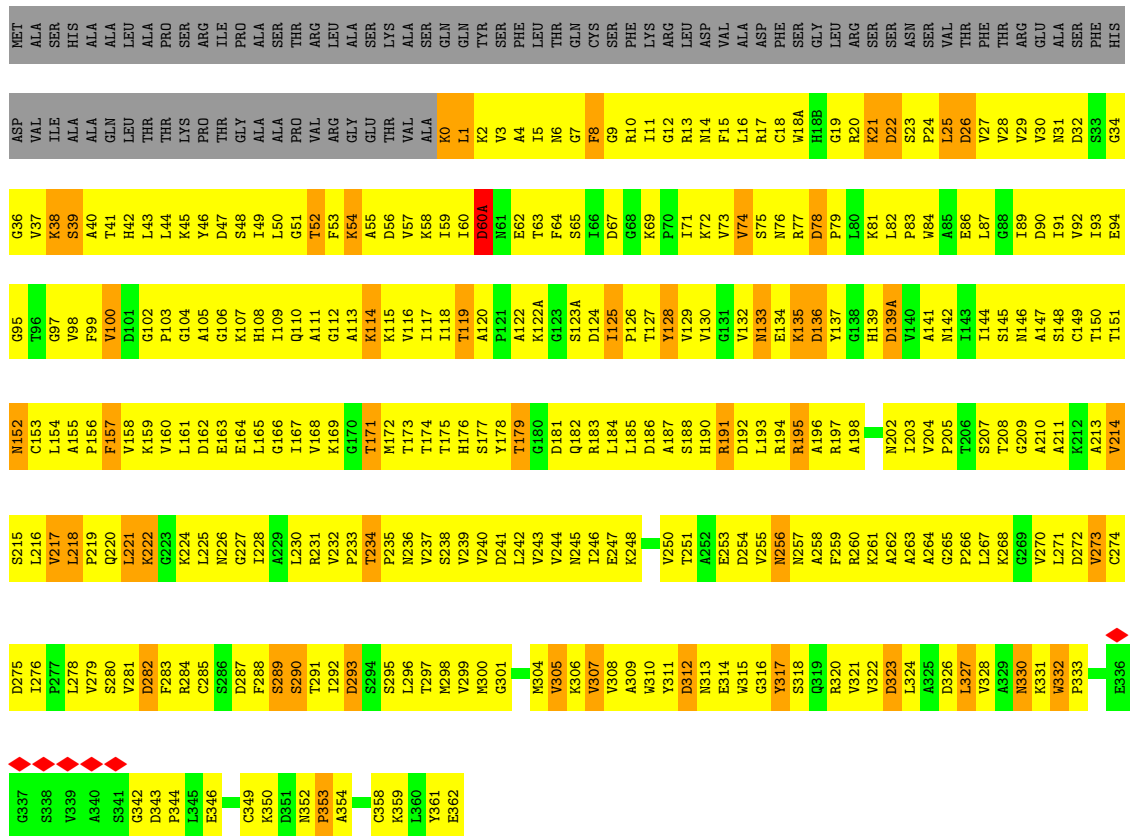
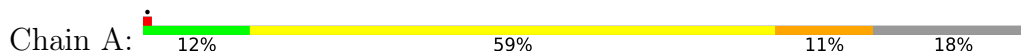


- Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic

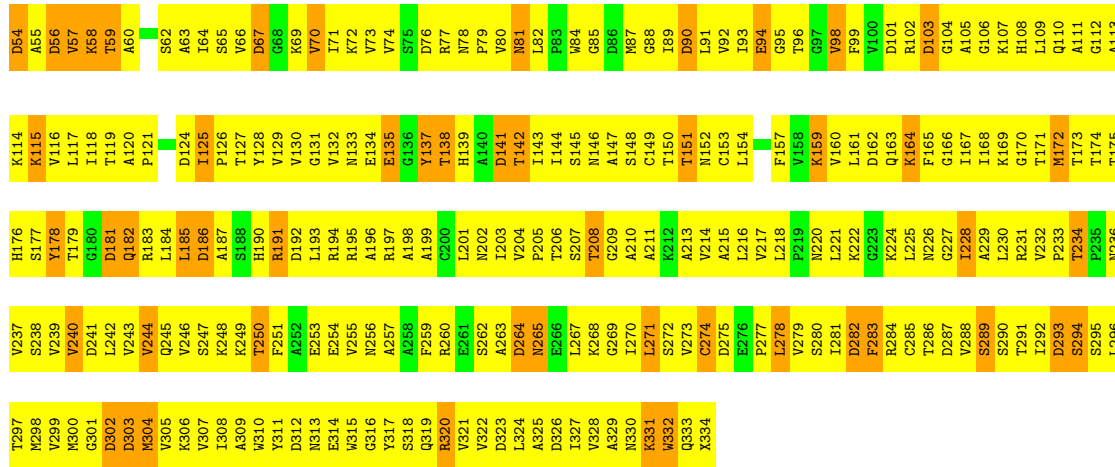




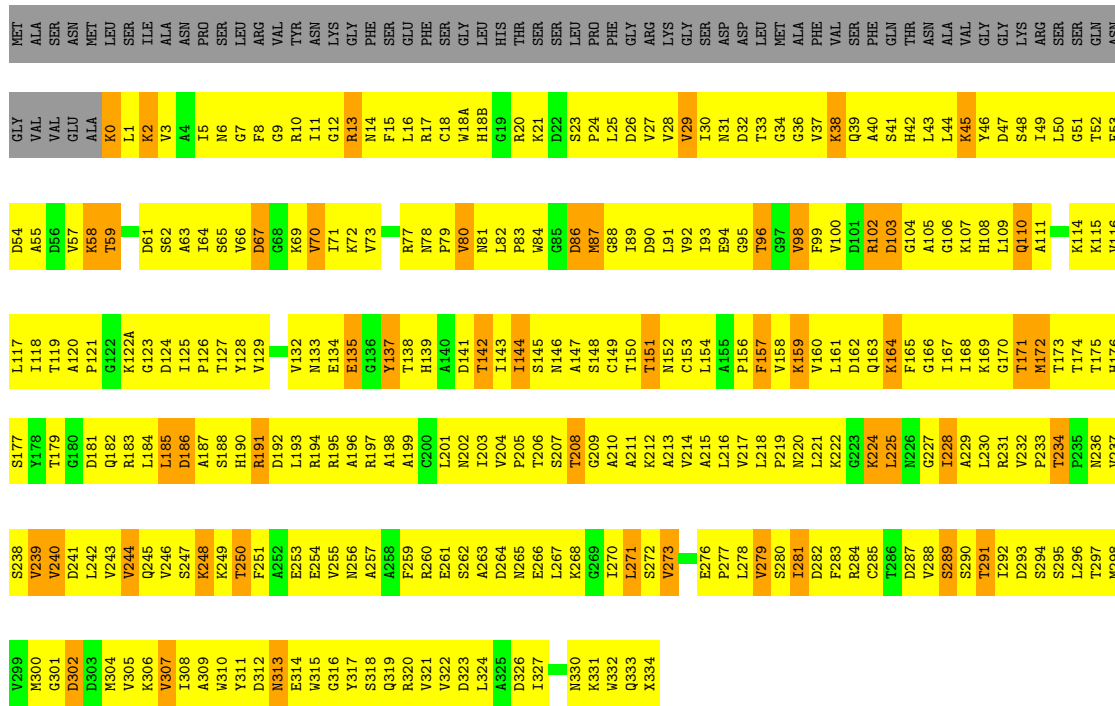
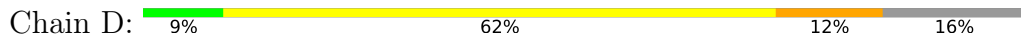
• Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic



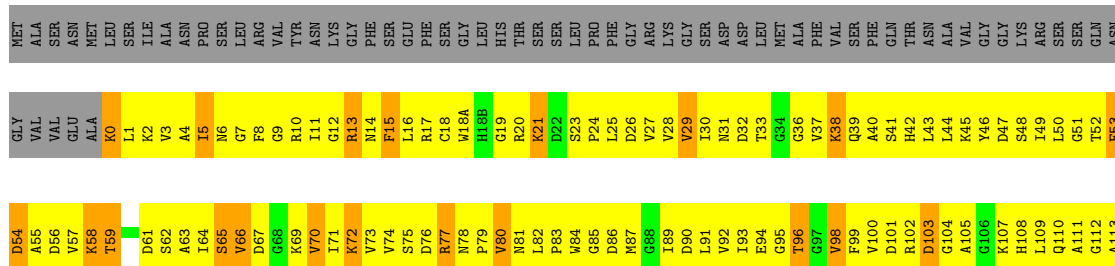
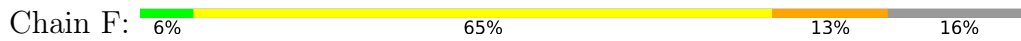
• Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic



● Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic

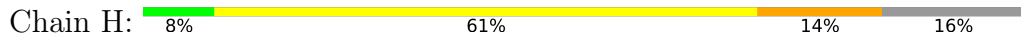


● Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic



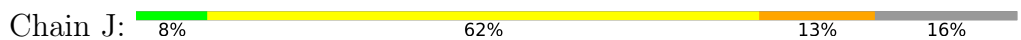
K114	T173	T234	S294
K115	T174	F235	S295
V116	T175	M236	L296
L117	H176	S237	L297
L118	S177	V238	V298
L119	S178	V239	M300
L120	Y178	V240	G301
A120	T179	D241	D302
F121	G180	L242	D303
L122	D181	L243	M304
K122A	Q182	V244	Q305
Q182	R183	Q245	V306
G123	R184	Q246	V307
D124	L185	S247	I308
D125	L186	K248	A309
L125	L187	T249	W310
L126	D188	F250	Y311
L127	A187	F251	Y312
Y127	S188	A252	D312
Y128	H189	E253	R313
Y129	H190	E254	F314
Y130	H191	V255	W315
V130	A191	M256	G316
V131	R191	A257	Y317
G131	Y192	A258	S318
G132	L193	F259	Q319
V132	L194	F259	R320
V133	R194	R260	H321
N133	R195	E261	L321
E134	R195	S262	V322
E135	A196	S263	D323
E136	A197	D264	L324
Y137	Y197	M265	A325
Y137	A198	E266	D326
F138	A199	L267	V328
F138	A199	G268	A329
H139	C200	L270	M330
H139	L201	L271	K331
A140	L201	S272	W332
A140	L202	V273	Q333
D141	R20	C274	X334
D141	R20	D275	
L141	R20	D276	
L142	R20	E276	
L143	R20	L277	
L144	R20	P277	
L144	R20	L278	
L144	R20	V279	
L144	R20	S280	
L144	R20	L281	
L144	R20	D282	
L144	R20	F283	
L144	R20	R284	
L144	R20	C285	
L144	R20	T286	
L144	R20	G287	
L144	R20	S289	
L144	R20	T291	
L144	R20	D292	
L144	R20	L293	
L144	R20	D294	
L144	R20	S295	
L144	R20	L296	
L144	R20	T297	

• Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic



MET	GLY	A55	K115	T175	N236	V298	F157
ALA	VAL	D56	V116	H176	V237	V299	V158
SER	VAL	V57	L117	S177	S238	M300	K159
ASN	GLU	K58	L118	Y178	G301	G301	V160
MET	ALA	T59	L119	T179	V240	D302	D161
LEU	ALA	A60	A120	G180	D241	D303	D162
SER	KO	G60A	F121	D181	L242	M304	Q163
ILE	L1	D61	G122	Q182	V243	V305	Q164
ALA	K2	S62	K122A	R183	V244	K306	F165
ALA	V3	A63	G123	L184	Q245	V307	F166
PRO	A4	I64	G124	L185	V246	I308	F167
SER	I5	S65	L125	L186	S247	A309	G168
SER	N6	V66	L126	A187	K248	W310	G169
LEU	G7	D67	T127	S188	K249	Y311	G170
ARG	F8	G68	Y128	H190	T250	D312	T171
VAL	G9	H68	Y129	R191	F251	M313	M172
TYR	R10	K69	V129	A191	A252	E314	M173
ASN	I11	V70	A130	D192	V253	W315	T174
LYS	G12	I71	G131	L193	E254	G316	
GLY	R13	K72	V132	R194	E254	Y317	
PHE	N14	V73	M133	A195	V255	V321	
SER	F15	D76	E134	A196	M256	V322	
GLU	L16	R77	G135	R197	A257	Q319	
PHE	R17	R78	G136	A198	A258	R320	
SER	C18	N78	Y137	A199	F259	V321	
GLY	W18A	P79	T138	A199	F259	V322	
LEU	H18B	V80	H139	L201	R260	V322	
HIS	G19	R81	A140	M202	E261	D323	
THR	R20	L82	D141	I203	D264	L324	
SER	K21	P83	T142	V204	L271	A329	
SER	G21	H84	L143	P205	L272	M330	
LEU	P24	G85	I144	T206	V273	X334	
PRO	L25	D86	S145	S207	K268		
PHE	D26	R87	M146	T208	G269		
GLY	V27	G88	A147	G209	L270		
LYS	V28	L89	A148	A210	L271		
LYS	D90	D90	C149	ARG	L278		
GLY	L91	L91	T150	LYS	V279		
SER	N31	V92	T151	GLY	C274		
ASP	D32	I93	M152	ASP	D275		
ASP	T33	E94	C153	ASP	E276		
LEU	L154	G95	L154	LEU	P277		
ALA	G34	T96	G34	MET	L278		
ALA	V37	G97	V37	ALA	V279		
PHE	K38	V98	K38	PHE	S280		
VAL	Q39	F99	Q39	VAL	L281		
SER	A40	V100	A40	SER	D282		
PHE	S41	D101	D101	PHE	F283		
GLN	H42	R102	R102	GLN	R284		
THR	L43	D103	D103	THR			
ASN	G104	G104	G104	ASN	D287		
ALA	A105	F106	F106	ALA	V288		
VAL	Y46	G106	G106	VAL	S289		
GLY	D47	K107	K107	GLY	T290		
LYS	S48	H108	H108	LYS	T291		
ARG	L109	K169	K169	ARG	D292		
ARG	L50	Q110	Q110	ARG	L293		
SER	A111	A111	A111	SER	S294		
SER	G51	G112	G112	SER	S295		
GLN	T52	M173	M173	GLN	L296		
ASN	D54	F53	F53	ASN	T297		

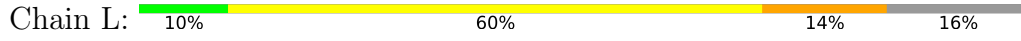
• Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic



MET	GLY	D54	K115	T175	N236	V298	F157
ALA	VAL	A55	V116	H176	V237	V299	V158
SER	VAL	D56	L117	S177	S238	M300	K159
ASN	GLU	V57	L118	Y178	G301	G301	V160
MET	ALA	T59	L119	T179	V240	D302	D161
LEU	ALA	A60	A120	G180	D241	D303	D162
SER	KO	G60A	F121	D181	L242	M304	Q163
ILE	L1	D61	G122	Q182	V243	V305	Q164
ALA	K2	S62	K122A	R183	V244	K306	F165
ALA	V3	A63	G123	L184	Q245	V307	F166
PRO	A4	I64	G124	L185	V246	I308	F167
SER	I5	S65	L125	L186	S247	A309	G168
SER	N6	V66	L126	A187	K248	W310	G169
LEU	G7	D67	T127	S188	K249	Y311	G170
ARG	F8	G68	Y128	H190	T250	D312	T171
VAL	G9	H68	Y129	R191	F251	M313	M172
TYR	R10	K69	V129	A191	A252	E314	M173
ASN	I11	V70	A130	D192	V253	W315	T174
LYS	G12	I71	G131	L193	E254	G316	
GLY	R13	K72	V132	R194	E254	Y317	
PHE	N14	V73	M133	A195	V255	V321	
SER	F15	D76	E134	A196	M256	V322	
GLU	L16	R77	G135	R197	A257	Q319	
PHE	R17	R78	G136	A198	A258	R320	
SER	C18	N78	Y137	A199	F259	V321	
GLY	W18A	P79	T138	A199	F259	V322	
LEU	H18B	V80	H139	L201	R260	V322	
HIS	G19	R81	A140	M202	E261	D323	
THR	R20	L82	D141	I203	D264	L324	
SER	K21	P83	T142	V204	L271	A329	
SER	G21	H84	L143	P205	L272	M330	
LEU	P24	G85	I144	T206	V273	X334	
PRO	L25	D86	S145	S207	K268		
PHE	D26	R87	M146	T208	G269		
GLY	V27	G88	A147	G209	L270		
LYS	V28	L89	A148	A210	L271		
LYS	D90	D90	C149	ARG	L278		
GLY	L91	L91	T150	LYS	V279		
SER	N31	V92	T151	GLY	C274		
ASP	D32	I93	M152	ASP	D275		
ASP	T33	E94	C153	ASP	E276		
LEU	L154	G95	L154	LEU	P277		
ALA	G34	T96	G34	MET	L278		
ALA	V37	G97	V37	ALA	V279		
PHE	K38	V98	K38	PHE	S280		
VAL	Q39	F99	Q39	VAL	L281		
SER	A40	V100	A40	SER	D282		
PHE	S41	D101	D101	PHE	F283		
GLN	H42	R102	R102	GLN	R284		
THR	L43	D103	D103	THR			
ASN	G104	G104	G104	ASN	D287		
ALA	A105	F106	F106	ALA	V288		
VAL	Y46	G106	G106	VAL	S289		
GLY	D47	K107	K107	GLY	T290		
LYS	S48	H108	H108	LYS	T291		
ARG	L109	K169	K169	ARG	D292		
ARG	L50	Q110	Q110	ARG	L293		
SER	A111	A111	A111	SER	S294		
SER	G51	G112	G112	SER	S295		
GLN	T52	M173	M173	GLN	L296		
ASN	D54	F53	F53	ASN	T297		

S177	S238	M288	S238	M288
Y178	V239	V289	V239	V289
T179	V240	M300	V240	M300
G180	D241	D302	L242	D302
D181	L243	M304	V244	M304
Q182	Q245	V305	Q245	V305
R183	V246	K306	V246	K306
L184	S247	A307	S247	A307
L185	K248	W310	K248	W310
D186	A187	S188	A187	S188
S188	S188	S188	S188	S188
H190	T250	W310	T250	W310
R191	F251	Y311	F251	Y311
D192	A252	D312	A252	D312
L193	E253	N313	L193	N313
R194	E254	E314	R194	E314
R195	R195	W315	R195	W315
A196	N256	G316	A196	N256
R197	A257	Y317	R197	A257
A198	A258	S318	A198	A258
A199	F259	Q319	A199	F259
C200	R260	R320	C200	R260
L201	E261	V321	L201	E261
N202	S262	V322	N202	S262
L203	A263	D323	L203	A263
V204	D264	L324	V204	D264
N205	N265	A325	N205	N265
P206	E266	D326	P206	E266
S207	L267	S327	S207	L267
T208	K268	G328	T208	K268
G209	D269	A329	G209	D269
A210	L270	N330	A210	L270
A211	L271	K331	A211	L271
K212	S272	W332	K212	S272
A213	V273	Q333	A213	V273
V214	C274	X334	V214	C274
A215	D275		A215	D275
L216	E276		L216	E276
V217	P277		V217	P277
L218	L278		L218	L278
P219	V279		P219	V279
N220	S280		N220	S280
L221	I281		L221	I281
K222	D282		K222	D282
G223	F283		G223	F283
K224	R284		K224	R284
L225	C285		L225	C285
N226	T286		N226	T286
G227	D287		G227	D287
I228	V288		I228	V288
A229	S289		A229	S289
L230	G290		L230	G290
R231	T291		R231	T291
V232	I292		V232	I292
P233	D293		P233	D293
T234	S294		T234	S294
P235	L296		P235	L296
N236	T297		N236	T297
V237	M298		V237	M298
	V299			V299

● Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic



MET	GLY	V67	L118	V178	V239	M300	E276	K300
ALA	VAL	K68	L119	T179	V240	G301	P277	E314
SER	VAL	T59	P120	G180	D241	D302	L278	W315
ASN	GLU	A60	P121	D181	L242	D303	L281	G316
MET	ALA		G122	Q182	V243	M304	K222	S318
LEU	KO	S62	K122A	R183	V244	V305	G223	Q319
SER	L1	A63	G123	L184	Q245	K306	R224	A329
ILE	K2	I64	D124	L186	V246	T308	K224	N330
ALA	V3	S65	I125	D186	S247	W310	N226	W332
PRO	A4	D67	T126	A187	K248	W311	G227	Q333
ASN	I5	G68	P127	S188	K249	Y311	I228	X334
SER	N6	G68	Y128	H190	T250	F251	A229	
LEU	G7	K69	V129	R191	F251	A252	S290	
ARG	F8	V70		D192	A252	E253	T291	
VAL	G9	I71	V132	L193	E253	E254	I292	
TYR	R10	K72	M133	R194	E254	V255	D293	
ASN	TYR	W73	E134	R195	V255	Y317	S294	
LYS	ASN	V74	E135	A196	N256	S318	S295	
GLY	LYS	S75	G136	R197	A257	Q319	L296	
PHE	PHE	D76	Y137	A198	A258	R320	T297	
SER	SER	R77	T138	A199	F259	L324	M298	
GLU	GLU	N78	H139	C200	R260	A325	V299	
PHE	PHE	F79	A140	L201	E261	V322		
SER	GLY	V80	D141	N202	S262	D323		
LEU	LEU	N81	T142	L203	A263	L324		
THR	HIS	L82	I143	V204	D264	A325		
SER	THR	P83	I144	P206	N265	D326		
SER	SER	W84	S145	T206	E266	V328		
SER	SER	G85	N146	S207	L267	A329		
LEU	LEU	D86	A147	T208	K268	N330		
PRO	PRO	M87	S148	G209	G269	K331		
PHE	PHE	G88	C149	A210	L270	W332		
ASP	ASP	I89	T150	A211	L271	Q333		
LEU	LEU	D90	T151	K212	S272	X334		
MET	MET	L91	M152	V214	V273			
ALA	ALA	V92	C153	V214				
PHE	PHE	I93	L154	L216				
VAL	VAL	E94	A155	L217				
SER	SER	G95	F156	V217				
ASP	ASP	T96	F157	L218				
LEU	LEU	G97	V158	L218				
MET	MET	V98	K159	P219				
ALA	ALA	F99	V160	N220				
PHE	PHE	V100	L161	L221				
VAL	VAL	D101	D162	K222				
SER	SER	R102	Q163	G223				
PHE	PHE	D103	K164	K224				
GLN	GLN	G104	F165	L225				
THR	THR	A105	G166	N226				
ASN	ASN	G106	I167	G227				
ALA	ALA	K107	I168	I228				
VAL	VAL	H108	I169	A229				
GLY	GLY	L109	G170	L230				
LYS	LYS	Q110	T171	R231				
ARG	ARG	A111	M172	V232				
SER	SER	K114	T173	P233				
SER	SER	K115	T174	T234				
GLN	GLN	V116	T175	P235				
ASN	ASN	L117	S177	M236				

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of particles used	23611	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	42	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.050	Depositor
Minimum map value	-0.016	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.012	Depositor
Map size (Å)	363.0, 363.0, 363.0	wwPDB
Map dimensions	300, 300, 300	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.21, 1.21, 1.21	Depositor

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: NAD

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.40	0/2739	0.56	2/3726 (0.1%)
1	C	0.44	0/2739	0.56	2/3726 (0.1%)
1	E	0.43	0/2739	0.58	2/3726 (0.1%)
1	G	0.44	0/2739	0.56	2/3726 (0.1%)
1	I	0.42	0/2739	0.57	2/3726 (0.1%)
1	K	0.43	0/2739	0.58	2/3726 (0.1%)
1	O	0.42	0/2739	0.56	2/3726 (0.1%)
1	Q	0.44	0/2739	0.55	2/3726 (0.1%)
2	B	0.39	0/2579	0.52	0/3502
2	D	0.39	0/2579	0.53	0/3502
2	F	0.38	0/2579	0.52	0/3502
2	H	0.40	0/2579	0.53	0/3502
2	J	0.39	0/2579	0.52	0/3502
2	L	0.39	0/2579	0.53	0/3502
2	P	0.38	0/2579	0.52	0/3502
2	R	0.40	0/2579	0.54	0/3502
All	All	0.41	0/42544	0.55	16/57824 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	G	0	1

There are no bond length outliers.

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	344	PRO	N-CA-CB	7.13	111.86	103.30
1	A	344	PRO	N-CA-CB	6.72	111.36	103.30
1	I	344	PRO	N-CA-CB	6.70	111.34	103.30
1	K	353	PRO	N-CA-CB	6.26	110.81	103.30
1	E	344	PRO	N-CA-CB	6.10	110.62	103.30
1	Q	344	PRO	N-CA-CB	6.08	110.59	103.30
1	C	344	PRO	N-CA-CB	6.00	110.50	103.30
1	A	353	PRO	N-CA-CB	5.68	110.12	103.30
1	O	353	PRO	N-CA-CB	5.67	110.10	103.30
1	E	353	PRO	N-CA-CB	5.63	110.05	103.30
1	O	344	PRO	N-CA-CB	5.55	109.95	103.30
1	G	344	PRO	N-CA-CB	5.52	109.92	103.30
1	G	353	PRO	N-CA-CB	5.51	109.91	103.30
1	I	353	PRO	N-CA-CB	5.49	109.89	103.30
1	C	353	PRO	N-CA-CB	5.48	109.87	103.30
1	Q	353	PRO	N-CA-CB	5.35	109.72	103.30

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	G	248	LYS	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2694	0	2681	479	0
1	C	2694	0	2681	536	0
1	E	2694	0	2681	515	0
1	G	2694	0	2681	547	0
1	I	2694	0	2681	461	0
1	K	2694	0	2681	479	0
1	O	2694	0	2681	565	0
1	Q	2694	0	2681	476	0
2	B	2544	0	2577	492	0
2	D	2544	0	2577	459	0
2	F	2544	0	2577	504	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	H	2544	0	2577	485	0
2	J	2544	0	2577	494	0
2	L	2544	0	2577	454	0
2	P	2544	0	2577	457	0
2	R	2544	0	2577	477	0
3	A	44	0	26	7	0
3	B	44	0	25	11	0
3	C	44	0	25	12	0
3	D	44	0	25	12	0
3	E	44	0	25	9	0
3	F	44	0	25	10	0
3	G	44	0	25	16	0
3	H	44	0	25	11	0
3	I	44	0	26	9	0
3	J	44	0	26	9	0
3	K	44	0	26	11	0
3	L	44	0	25	10	0
3	O	44	0	26	10	0
3	P	44	0	26	14	0
3	Q	44	0	25	12	0
3	R	44	0	26	13	0
All	All	42608	0	42471	7484	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 88.

All (7484) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:37:VAL:HB	1:O:59:ILE:CG2	1.27	1.55
2:F:10:ARG:NH2	1:G:185:LEU:HD13	1.32	1.42
1:Q:37:VAL:CG1	1:Q:59:ILE:HG23	1.55	1.35
2:F:10:ARG:CZ	1:G:185:LEU:HD13	1.58	1.33
1:E:17:ARG:CD	1:E:44:LEU:HG	1.60	1.32
1:O:13:ARG:CA	1:O:44:LEU:HD13	1.60	1.27
2:B:10:ARG:HB2	3:B:401:NAD:O1N	1.38	1.24
1:G:199:ALA:HB1	1:G:231:ARG:NH1	1.52	1.24
1:O:37:VAL:CB	1:O:59:ILE:HG22	1.68	1.23
1:O:37:VAL:CB	1:O:59:ILE:CG2	2.15	1.23
2:F:10:ARG:HH22	1:G:185:LEU:CD1	1.53	1.20
1:G:199:ALA:CB	1:G:231:ARG:NH1	2.02	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:37:VAL:CG1	1:E:59:ILE:HB	1.73	1.18
1:Q:8:PHE:HB2	1:Q:32:ASP:OD2	1.38	1.17
2:H:10:ARG:HB2	3:H:401:NAD:O1N	1.42	1.17
2:R:59:THR:HA	2:R:64:ILE:HA	1.16	1.16
1:E:17:ARG:HD2	1:E:44:LEU:CD2	1.78	1.14
1:E:17:ARG:CD	1:E:44:LEU:CG	2.26	1.13
1:O:13:ARG:CA	1:O:44:LEU:CD1	2.26	1.13
1:E:37:VAL:HG11	1:E:59:ILE:HB	1.23	1.12
2:F:10:ARG:HH12	1:G:185:LEU:CD1	1.62	1.11
1:O:13:ARG:HB3	1:O:44:LEU:HD12	1.32	1.10
1:O:13:ARG:HA	1:O:44:LEU:CD1	1.82	1.10
2:R:120:ALA:HB2	3:R:401:NAD:H1D	1.31	1.10
1:C:249:GLY:HA2	1:C:302:GLY:CA	1.82	1.09
2:F:10:ARG:NH2	1:G:185:LEU:CD1	2.14	1.08
1:Q:37:VAL:HG12	1:Q:59:ILE:HG23	1.15	1.08
1:O:37:VAL:HG13	1:O:62:GLU:CA	1.85	1.06
1:E:16:LEU:HD23	1:E:44:LEU:HD13	1.38	1.05
1:C:237:VAL:HG11	1:C:280:SER:HB3	1.38	1.04
2:F:10:ARG:NH1	1:G:185:LEU:HD13	1.71	1.04
1:O:13:ARG:CB	1:O:44:LEU:CD1	2.36	1.04
2:F:10:ARG:NH1	1:G:185:LEU:CB	2.21	1.04
2:F:10:ARG:HB2	3:F:401:NAD:O1N	1.57	1.04
2:F:10:ARG:NH1	1:G:185:LEU:CD1	2.21	1.04
1:O:13:ARG:CB	1:O:44:LEU:HD13	1.86	1.03
1:C:249:GLY:HA2	1:C:302:GLY:HA3	1.37	1.03
2:H:10:ARG:CB	3:H:401:NAD:O1N	2.05	1.03
1:O:37:VAL:CG1	1:O:62:GLU:CA	2.36	1.03
1:E:17:ARG:CD	1:E:44:LEU:CD2	2.37	1.02
1:O:13:ARG:HA	1:O:44:LEU:HD13	1.04	1.01
1:E:17:ARG:NE	1:E:44:LEU:HG	1.74	1.01
1:I:188:SER:HB3	1:I:196:ALA:HA	1.41	1.01
1:O:13:ARG:HB3	1:O:44:LEU:CD1	1.91	1.00
1:O:37:VAL:HG13	1:O:62:GLU:HA	1.42	1.00
1:Q:37:VAL:HG12	1:Q:59:ILE:CG2	1.91	1.00
1:E:17:ARG:HD2	1:E:44:LEU:CG	1.90	1.00
1:E:17:ARG:HD2	1:E:44:LEU:HG	1.42	0.99
1:E:16:LEU:HD23	1:E:44:LEU:CD1	1.93	0.99
2:F:59:THR:HA	2:F:64:ILE:HA	1.42	0.98
2:F:10:ARG:NH1	1:G:185:LEU:HB3	1.77	0.98
2:B:10:ARG:CB	3:B:401:NAD:O1N	2.10	0.98
1:A:202:ASN:HD22	1:C:279:VAL:HG23	1.29	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:37:VAL:CG1	1:Q:59:ILE:CG2	2.43	0.97
1:Q:37:VAL:HG11	1:Q:59:ILE:HG23	1.45	0.95
1:C:204:VAL:HB	1:C:231:ARG:HB3	1.46	0.95
1:C:249:GLY:CA	1:C:302:GLY:HA3	1.96	0.95
1:E:41:THR:OG1	1:E:59:ILE:CG2	2.15	0.95
1:O:165:LEU:HB3	1:O:246:ILE:HD11	1.47	0.95
1:E:41:THR:OG1	1:E:59:ILE:HG21	1.67	0.94
1:G:299:VAL:HA	1:G:305:VAL:HA	1.46	0.94
1:E:59:ILE:HD12	1:E:59:ILE:O	1.68	0.94
2:H:116:VAL:HB	2:H:143:ILE:HA	1.49	0.94
1:Q:8:PHE:CB	1:Q:32:ASP:OD2	2.15	0.94
1:A:185:LEU:HD12	2:D:10:ARG:NH1	1.83	0.94
1:C:6:ASN:HD21	1:C:96:THR:HG23	1.30	0.94
1:G:7:GLY:H	1:G:31:ASN:HB3	1.32	0.94
1:O:37:VAL:CG1	1:O:62:GLU:C	2.36	0.93
1:G:8:PHE:O	1:G:13:ARG:NH1	2.01	0.93
2:F:281:ILE:HG22	2:H:202:ASN:HD21	1.34	0.93
1:I:239:VAL:HA	1:I:310:TRP:HA	1.48	0.93
2:B:250:THR:H	2:B:302:ASP:HB3	1.33	0.93
2:R:77:ARG:HB3	3:R:401:NAD:H62A	1.33	0.92
2:D:250:THR:H	2:D:302:ASP:HB3	1.33	0.92
1:O:37:VAL:CG1	1:O:62:GLU:N	2.33	0.92
1:O:128:TYR:H	1:O:146:ASN:HA	1.35	0.91
2:R:116:VAL:HB	2:R:143:ILE:HA	1.49	0.91
1:O:37:VAL:HG12	1:O:62:GLU:C	1.91	0.91
1:I:186:ASP:HB3	2:L:43:LEU:HD22	1.53	0.91
2:P:177:SER:HA	2:P:234:THR:HG23	1.53	0.91
1:G:199:ALA:HB1	1:G:231:ARG:HH11	1.21	0.91
1:Q:246:ILE:HG22	1:Q:303:ASP:HA	1.54	0.90
1:E:59:ILE:HA	1:E:64:PHE:HA	1.54	0.90
2:F:177:SER:HA	2:F:234:THR:HG23	1.53	0.90
1:I:21:LYS:H	1:I:21:LYS:HZ2	1.18	0.90
2:H:46:TYR:HA	2:H:52:THR:HA	1.54	0.90
1:K:323:ASP:HA	1:K:326:ASP:HB2	1.54	0.90
2:B:282:ASP:OD1	2:B:282:ASP:N	2.04	0.89
1:E:239:VAL:HA	1:E:310:TRP:HA	1.55	0.89
1:A:218:LEU:HB3	1:A:220:GLN:HE22	1.36	0.89
2:J:177:SER:HA	2:J:234:THR:HG23	1.53	0.89
2:L:46:TYR:HA	2:L:52:THR:HA	1.54	0.89
2:J:250:THR:H	2:J:302:ASP:HB3	1.37	0.89
2:L:250:THR:H	2:L:302:ASP:HB3	1.38	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:31:ASN:HA	1:Q:74:VAL:HG12	1.54	0.89
1:G:282:ASP:OD1	1:G:282:ASP:N	2.05	0.88
2:R:46:TYR:HA	2:R:52:THR:HA	1.53	0.88
1:I:296:LEU:HB3	1:I:308:VAL:HB	1.54	0.88
1:G:82:LEU:HB2	1:G:84:TRP:HE1	1.38	0.88
1:E:37:VAL:CG1	1:E:59:ILE:CB	2.52	0.88
1:O:37:VAL:HB	1:O:59:ILE:HG21	1.54	0.88
1:E:312:ASP:OD2	1:E:315:TRP:N	2.06	0.88
1:O:177:SER:HA	1:O:234:THR:HG23	1.55	0.88
1:Q:191:ARG:HB2	1:I:358:CYS:HA	1.56	0.88
2:F:8:PHE:O	2:F:13:ARG:NH2	2.06	0.88
1:G:199:ALA:CB	1:G:231:ARG:HH12	1.82	0.88
1:K:46:TYR:HA	1:K:52:THR:HA	1.53	0.87
1:O:37:VAL:HB	1:O:59:ILE:HG23	1.52	0.87
1:O:37:VAL:HB	1:O:59:ILE:HG22	0.88	0.87
1:O:282:ASP:OD1	1:O:282:ASP:N	2.08	0.87
1:K:137:TYR:O	1:K:331:LYS:NZ	2.07	0.87
2:L:13:ARG:HH11	2:L:13:ARG:H	1.23	0.86
1:C:237:VAL:HG21	1:C:280:SER:HA	1.57	0.86
2:D:46:TYR:HA	2:D:52:THR:HA	1.55	0.86
1:I:183:ARG:HB2	1:I:188:SER:HB2	1.57	0.86
1:O:37:VAL:HG11	1:O:62:GLU:N	1.90	0.86
1:O:174:THR:HG22	1:O:229:ALA:HB1	1.57	0.86
1:E:17:ARG:HD3	1:E:44:LEU:CG	2.06	0.86
2:F:261:GLU:OE1	2:F:265:ASN:ND2	2.09	0.86
1:Q:157:PHE:HA	1:Q:160:VAL:HB	1.57	0.86
2:J:202:ASN:HD21	2:L:281:ILE:H	1.23	0.85
2:P:261:GLU:OE1	2:P:265:ASN:ND2	2.09	0.85
2:F:41:SER:O	2:F:45:LYS:N	2.09	0.85
2:L:167:ILE:HA	2:L:246:VAL:HA	1.58	0.85
1:Q:139:HIS:HB2	1:Q:331:LYS:HD2	1.58	0.85
1:O:239:VAL:HA	1:O:310:TRP:HA	1.59	0.85
1:A:136:ASP:OD1	1:A:136:ASP:N	2.06	0.85
2:L:116:VAL:HB	2:L:143:ILE:HA	1.59	0.85
1:C:41:THR:O	1:C:45:LYS:N	2.10	0.84
2:B:318:SER:O	2:B:322:VAL:N	2.10	0.84
2:R:177:SER:HA	2:R:234:THR:HG23	1.59	0.84
1:I:270:VAL:O	1:I:320:ARG:NH2	2.11	0.84
1:I:262:ALA:HA	1:I:266:PRO:HD2	1.59	0.84
1:Q:89:ILE:O	1:Q:114:LYS:NZ	2.11	0.84
2:P:148:SER:HA	3:P:401:NAD:H5N	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:244:VAL:H	1:E:305:VAL:HG22	1.40	0.84
2:L:10:ARG:N	3:L:401:NAD:O1N	2.11	0.84
1:Q:293:ASP:OD2	1:Q:296:LEU:N	2.11	0.84
2:L:218:LEU:HB3	2:L:221:LEU:HD13	1.59	0.83
2:L:263:ALA:HA	2:L:267:LEU:HB2	1.60	0.83
2:D:10:ARG:N	3:D:401:NAD:O1N	2.10	0.83
2:D:13:ARG:HH11	2:D:13:ARG:H	1.26	0.83
1:E:17:ARG:HD2	1:E:44:LEU:HD23	1.59	0.83
2:J:281:ILE:HG13	2:J:284:ARG:HE	1.43	0.83
2:H:177:SER:HA	2:H:234:THR:HG23	1.58	0.83
2:D:167:ILE:HA	2:D:246:VAL:HA	1.59	0.83
2:J:54:ASP:OD1	2:J:54:ASP:N	2.08	0.83
1:O:16:LEU:HD23	1:O:44:LEU:HD21	1.60	0.83
1:C:246:ILE:HG22	1:C:248:LYS:H	1.41	0.83
2:J:318:SER:O	2:J:322:VAL:N	2.10	0.83
2:F:10:ARG:HH22	1:G:185:LEU:HD13	1.07	0.83
1:K:127:THR:O	1:K:133:ASN:ND2	2.12	0.83
2:D:116:VAL:HB	2:D:143:ILE:HA	1.60	0.83
1:K:41:THR:O	1:K:45:LYS:N	2.12	0.83
1:K:118:ILE:H	1:K:145:SER:HA	1.42	0.83
1:Q:183:ARG:NH1	1:Q:188:SER:O	2.12	0.83
1:Q:191:ARG:N	1:I:357:GLU:O	2.11	0.83
2:D:218:LEU:HB3	2:D:221:LEU:HD13	1.60	0.83
1:K:137:TYR:HE2	1:K:331:LYS:HB3	1.43	0.83
2:B:176:HIS:O	2:B:232:VAL:N	2.11	0.83
1:G:2:LYS:HB3	1:G:89:ILE:HA	1.59	0.83
1:A:90:ASP:HA	1:A:114:LYS:HB2	1.61	0.83
1:I:253:GLU:O	1:I:256:ASN:ND2	2.12	0.83
2:P:119:THR:HB	3:P:401:NAD:H1D	1.61	0.82
2:R:18:CYS:O	2:R:20:ARG:N	2.10	0.82
1:A:204:VAL:HB	1:A:231:ARG:HB2	1.61	0.82
1:E:8:PHE:HZ	1:E:16:LEU:HD23	1.43	0.82
2:J:202:ASN:ND2	2:L:280:SER:OG	2.12	0.82
1:O:256:ASN:HA	1:O:259:PHE:HB2	1.61	0.82
2:P:41:SER:O	2:P:45:LYS:N	2.12	0.82
1:C:274:CYS:N	1:C:292:ILE:O	2.12	0.82
1:O:157:PHE:HA	1:O:160:VAL:HB	1.61	0.82
1:C:177:SER:HA	1:C:234:THR:HG23	1.61	0.82
2:H:300:MET:HB2	2:H:304:MET:HB3	1.62	0.82
2:J:264:ASP:OD1	2:J:264:ASP:N	2.11	0.82
2:R:59:THR:CA	2:R:64:ILE:HA	2.05	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:177:SER:O	1:C:231:ARG:NH1	2.12	0.82
1:E:236:ASN:ND2	1:E:312:ASP:OD1	2.12	0.82
1:G:199:ALA:CA	1:G:231:ARG:HH12	1.91	0.82
1:O:182:GLN:HA	1:O:195:ARG:HB3	1.62	0.82
1:E:137:TYR:O	1:E:331:LYS:NZ	2.12	0.82
2:D:88:GLY:O	2:D:114:LYS:NZ	2.13	0.82
1:K:253:GLU:O	1:K:257:ASN:ND2	2.12	0.82
1:A:237:VAL:HG11	1:A:280:SER:HB2	1.62	0.82
1:Q:14:ASN:O	1:Q:18:CYS:N	2.10	0.82
1:A:83:PRO:HB2	1:A:86:GLU:HB3	1.60	0.82
2:F:10:ARG:HH12	1:G:185:LEU:CB	1.86	0.82
2:R:64:ILE:H	2:R:71:ILE:H	1.26	0.82
2:B:177:SER:HA	2:B:234:THR:HG23	1.62	0.82
1:E:16:LEU:CD2	1:E:44:LEU:HD13	2.09	0.82
1:G:121:PRO:HA	1:G:147:ALA:HA	1.62	0.82
2:P:169:LYS:HE2	2:R:301:GLY:HA3	1.62	0.81
2:B:38:LYS:O	2:B:42:HIS:ND1	2.12	0.81
2:B:264:ASP:OD1	2:B:264:ASP:N	2.11	0.81
1:C:0:LYS:NZ	1:C:24:PRO:O	2.13	0.81
2:D:41:SER:O	2:D:45:LYS:N	2.12	0.81
2:D:263:ALA:HA	2:D:267:LEU:HB2	1.61	0.81
2:R:282:ASP:OD1	2:R:282:ASP:N	2.12	0.81
1:O:1:LEU:HD22	1:O:333:PRO:HG3	1.60	0.81
2:R:300:MET:HB2	2:R:304:MET:HB3	1.62	0.81
2:F:13:ARG:H	2:F:13:ARG:HH11	1.27	0.81
1:O:17:ARG:NH1	1:O:44:LEU:O	2.13	0.81
1:E:118:ILE:O	1:E:146:ASN:ND2	2.14	0.81
1:G:291:THR:O	1:G:310:TRP:N	2.13	0.81
2:H:18:CYS:O	2:H:20:ARG:N	2.10	0.81
2:H:282:ASP:N	2:H:282:ASP:OD1	2.11	0.81
1:A:45:LYS:NZ	1:A:53:PHE:O	2.13	0.81
1:A:239:VAL:HA	1:A:310:TRP:HA	1.61	0.81
1:E:202:ASN:HD21	1:G:281:VAL:HG13	1.45	0.81
1:E:289:SER:OG	1:E:320:ARG:NH1	2.14	0.81
1:O:33:SER:CB	1:O:77:ARG:HH11	1.93	0.81
2:B:202:ASN:ND2	2:D:280:SER:OG	2.13	0.81
1:I:226:ASN:ND2	1:K:300:MET:SD	2.54	0.81
1:O:273:VAL:HG12	1:O:292:ILE:HB	1.63	0.81
2:P:28:VAL:HA	2:P:71:ILE:HG12	1.62	0.81
1:A:10:ARG:HH12	2:D:185:LEU:HB3	1.42	0.81
2:D:300:MET:HB2	2:D:304:MET:HB3	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:176:HIS:O	2:J:232:VAL:N	2.12	0.81
2:R:49:ILE:HG23	2:R:284:ARG:HH11	1.45	0.80
2:B:256:ASN:O	2:B:260:ARG:N	2.13	0.80
1:C:274:CYS:SG	1:C:275:ASP:N	2.54	0.80
2:L:88:GLY:O	2:L:114:LYS:NZ	2.13	0.80
2:L:300:MET:HB2	2:L:304:MET:HB3	1.61	0.80
2:F:306:LYS:HE3	2:H:171:THR:HB	1.64	0.80
2:J:256:ASN:O	2:J:260:ARG:N	2.14	0.80
1:A:118:ILE:HB	1:A:145:SER:HA	1.63	0.80
2:F:169:LYS:HE2	2:H:301:GLY:HA3	1.61	0.80
2:F:170:GLY:HA3	2:F:225:LEU:HD13	1.63	0.80
2:H:8:PHE:O	2:H:13:ARG:NH2	2.10	0.80
1:I:291:THR:H	1:I:310:TRP:HB2	1.46	0.80
1:O:37:VAL:CB	1:O:59:ILE:HG21	2.08	0.80
1:C:249:GLY:CA	1:C:302:GLY:CA	2.57	0.80
2:B:116:VAL:HB	2:B:143:ILE:HA	1.64	0.80
2:J:8:PHE:O	2:J:13:ARG:NH2	2.12	0.80
1:K:212:LYS:HZ1	1:K:226:ASN:HA	1.44	0.80
2:B:306:LYS:NZ	2:D:172:MET:O	2.14	0.80
1:G:188:SER:HB3	1:G:196:ALA:HA	1.63	0.80
2:D:63:ALA:HB1	2:D:70:VAL:HG23	1.63	0.80
2:F:10:ARG:CB	3:F:401:NAD:O1N	2.29	0.80
1:I:238:SER:N	1:I:311:TYR:O	2.12	0.80
2:L:239:VAL:HA	2:L:310:TRP:HA	1.64	0.80
1:E:33:SER:HA	1:E:75:SER:HB3	1.63	0.80
2:B:202:ASN:HD21	2:D:281:ILE:H	1.27	0.80
1:I:136:ASP:OD1	1:I:136:ASP:N	2.04	0.80
1:I:194:ARG:HD2	1:I:205:PRO:HD2	1.63	0.80
2:J:103:ASP:OD1	2:J:103:ASP:N	2.14	0.80
2:R:8:PHE:O	2:R:13:ARG:NH2	2.11	0.79
2:P:8:PHE:O	2:P:13:ARG:NH2	2.11	0.79
2:P:170:GLY:HA3	2:P:225:LEU:HD13	1.62	0.79
1:Q:244:VAL:HG13	1:Q:305:VAL:HG23	1.65	0.79
1:A:171:THR:HG21	1:C:243:VAL:HG21	1.64	0.79
1:O:165:LEU:HA	1:O:248:LYS:HD2	1.64	0.79
1:I:274:CYS:SG	1:I:275:ASP:N	2.56	0.79
2:J:137:TYR:O	2:J:331:LYS:NZ	2.16	0.79
1:Q:238:SER:HB2	1:Q:311:TYR:CE2	2.17	0.79
1:Q:291:THR:O	1:Q:310:TRP:N	2.15	0.79
1:C:192:ASP:OD2	1:C:195:ARG:N	2.16	0.79
1:E:33:SER:CB	1:E:77:ARG:HH11	1.94	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:246:ILE:HG13	1:O:248:LYS:H	1.47	0.79
1:O:326:ASP:OD1	1:O:326:ASP:N	2.12	0.79
1:Q:257:ASN:HA	1:Q:260:ARG:HB2	1.63	0.79
1:A:240:VAL:O	1:A:309:ALA:N	2.16	0.79
2:B:137:TYR:O	2:B:331:LYS:NZ	2.15	0.79
2:B:172:MET:N	2:B:172:MET:SD	2.56	0.79
1:E:167:ILE:HG13	1:E:244:VAL:HG21	1.63	0.79
2:F:10:ARG:N	3:F:401:NAD:O1N	2.16	0.79
2:P:281:ILE:H	2:R:202:ASN:HD21	1.29	0.79
1:A:234:THR:HG21	1:A:237:VAL:HG12	1.64	0.79
1:C:257:ASN:HA	1:C:260:ARG:HB2	1.64	0.79
1:G:248:LYS:HA	1:G:248(A):VAL:HG13	1.64	0.79
2:J:172:MET:N	2:J:172:MET:SD	2.56	0.79
1:E:257:ASN:O	1:E:261:LYS:N	2.16	0.79
2:R:239:VAL:HA	2:R:310:TRP:HA	1.64	0.79
1:A:270:VAL:O	1:A:289:SER:N	2.16	0.79
1:C:2:LYS:NZ	1:C:87:LEU:O	2.16	0.79
2:F:10:ARG:HH12	1:G:185:LEU:HD12	1.47	0.79
2:F:215:ALA:O	2:F:222:LYS:NZ	2.15	0.79
2:H:239:VAL:HA	2:H:310:TRP:HA	1.65	0.79
2:L:41:SER:O	2:L:45:LYS:N	2.11	0.79
2:L:270:ILE:O	2:L:289:SER:N	2.15	0.79
1:O:117:ILE:HD11	1:O:146:ASN:HB3	1.65	0.79
1:C:179:THR:OG1	1:C:182:GLN:NE2	2.16	0.79
1:C:312:ASP:OD1	1:C:316:GLY:N	2.16	0.79
1:E:17:ARG:CD	1:E:44:LEU:HD21	2.11	0.79
1:E:120:ALA:H	1:E:146:ASN:HD21	1.31	0.79
1:G:316:GLY:O	1:G:320:ARG:N	2.15	0.79
2:L:8:PHE:O	2:L:13:ARG:NH2	2.13	0.79
1:Q:8:PHE:O	1:Q:13:ARG:NH2	2.16	0.79
1:I:185:LEU:CD1	2:L:10:ARG:NH1	2.46	0.79
1:K:312:ASP:OD1	1:K:316:GLY:N	2.16	0.79
2:P:306:LYS:HE3	2:R:171:THR:HB	1.65	0.78
1:Q:190:HIS:ND1	1:Q:192:ASP:O	2.16	0.78
1:A:185:LEU:HD12	2:D:10:ARG:CZ	2.12	0.78
2:F:28:VAL:HA	2:F:71:ILE:HG12	1.63	0.78
1:A:238:SER:N	1:A:311:TYR:O	2.13	0.78
1:C:256:ASN:O	1:C:260:ARG:N	2.14	0.78
1:K:47:ASP:HB3	1:K:51:GLY:H	1.49	0.78
1:O:18:CYS:O	1:O:20:ARG:N	2.16	0.78
2:R:186:ASP:OD1	2:R:186:ASP:N	2.15	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:10:ARG:N	3:H:401:NAD:O1N	2.16	0.78
1:K:136:ASP:N	1:K:136:ASP:OD1	2.16	0.78
1:A:135:LYS:NZ	1:A:136:ASP:OD1	2.16	0.78
2:D:186:ASP:OD1	2:D:186:ASP:N	2.11	0.78
1:G:82:LEU:HB2	1:G:84:TRP:NE1	1.98	0.78
2:J:306:LYS:NZ	2:L:172:MET:O	2.16	0.78
1:Q:184:LEU:HG	1:Q:185:LEU:HG	1.65	0.78
1:A:274:CYS:SG	1:A:275:ASP:N	2.56	0.78
1:G:182:GLN:NE2	1:G:194:ARG:O	2.15	0.78
1:K:3:VAL:HG21	1:K:25:LEU:HG	1.65	0.78
2:L:5:ILE:HB	2:L:30:ILE:HG23	1.65	0.78
1:O:38:LYS:HG3	1:O:39:SER:H	1.49	0.78
1:O:173:THR:HA	1:O:229:ALA:HA	1.64	0.78
2:B:81:ASN:OD1	2:B:81:ASN:N	2.15	0.78
1:E:33:SER:OG	1:E:77:ARG:NH1	2.14	0.78
2:H:49:ILE:HG23	2:H:284:ARG:HH11	1.48	0.78
1:K:282:ASP:N	1:K:282:ASP:OD1	2.13	0.78
1:O:18(A):TRP:O	1:O:20:ARG:HB3	1.83	0.78
2:D:239:VAL:HA	2:D:310:TRP:HA	1.64	0.78
1:O:170:GLY:HA3	1:O:244:VAL:HG12	1.66	0.78
2:B:149:CYS:SG	3:B:401:NAD:N7N	2.56	0.78
2:D:118:ILE:H	2:D:145:SER:HA	1.49	0.78
1:I:312:ASP:OD1	1:I:316:GLY:N	2.13	0.78
2:P:3:VAL:HB	2:P:27:VAL:HG22	1.65	0.78
2:P:20:ARG:HG3	2:P:322:VAL:HG11	1.65	0.78
1:A:106:GLY:O	1:A:110:GLN:N	2.12	0.78
2:D:270:ILE:O	2:D:289:SER:N	2.16	0.78
2:R:41:SER:O	2:R:45:LYS:N	2.15	0.78
1:A:253:GLU:O	1:A:256:ASN:ND2	2.16	0.78
1:C:10:ARG:O	1:C:14:ASN:ND2	2.17	0.78
1:E:17:ARG:HD3	1:E:44:LEU:CD2	2.14	0.78
1:G:182:GLN:OE1	1:G:183:ARG:N	2.18	0.78
1:K:172:MET:HA	1:K:242:LEU:HA	1.65	0.77
2:L:28:VAL:O	2:L:72:LYS:N	2.17	0.77
1:G:205:PRO:HG3	1:G:230:LEU:HD22	1.66	0.77
2:J:233:PRO:HB2	2:L:233:PRO:HB2	1.65	0.77
1:A:226:ASN:N	1:C:300:MET:SD	2.58	0.77
2:B:8:PHE:O	2:B:13:ARG:NH2	2.11	0.77
2:B:103:ASP:OD1	2:B:103:ASP:N	2.14	0.77
2:H:41:SER:O	2:H:45:LYS:N	2.12	0.77
1:Q:2:LYS:NZ	1:Q:87:LEU:O	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:209:GLY:HA2	1:Q:212:LYS:HD2	1.67	0.77
2:H:10:ARG:HH22	2:H:179:THR:HB	1.47	0.77
1:O:128:TYR:HA	1:O:133:ASN:HD21	1.49	0.77
1:E:253:GLU:O	1:E:257:ASN:N	2.14	0.77
1:K:221:LEU:HD13	1:K:224:LYS:HB3	1.66	0.77
1:Q:47:ASP:OD1	1:Q:49:ILE:N	2.18	0.77
2:R:59:THR:HA	2:R:64:ILE:CA	2.07	0.77
1:I:297:THR:HG22	1:I:308:VAL:H	1.48	0.77
1:Q:177:SER:HA	1:Q:234:THR:HG23	1.67	0.77
2:B:41:SER:O	2:B:45:LYS:N	2.16	0.77
1:G:10:ARG:N	3:G:401:NAD:O2A	2.16	0.77
2:J:263:ALA:O	2:J:268:LYS:NZ	2.18	0.77
1:G:116:VAL:HB	1:G:144:ILE:H	1.49	0.77
1:O:2:LYS:HB3	1:O:89:ILE:HD13	1.65	0.77
2:B:10:ARG:N	3:B:401:NAD:O1N	2.18	0.77
2:P:165:PHE:HA	2:P:248:LYS:HD3	1.67	0.76
2:P:172:MET:N	2:P:172:MET:SD	2.58	0.76
1:Q:191:ARG:NH2	1:I:349:CYS:SG	2.58	0.76
2:R:176:HIS:HB3	2:R:231:ARG:HA	1.67	0.76
1:A:164:GLU:O	1:A:248:LYS:NZ	2.18	0.76
1:O:118:ILE:O	1:O:146:ASN:ND2	2.19	0.76
2:B:54:ASP:OD1	2:B:54:ASP:N	2.09	0.76
1:C:27:VAL:HG22	1:C:29:VAL:H	1.50	0.76
1:G:183:ARG:HE	1:G:188:SER:HB2	1.50	0.76
1:I:191:ARG:HE	1:I:192:ASP:H	1.33	0.76
2:R:172:MET:HB3	2:R:242:LEU:HB2	1.67	0.76
2:B:102:ARG:NH2	2:B:143:ILE:O	2.17	0.76
1:E:38:LYS:HG3	1:E:39:SER:H	1.49	0.76
2:F:3:VAL:HB	2:F:27:VAL:HG22	1.67	0.76
2:H:5:ILE:HB	2:H:30:ILE:HG23	1.67	0.76
1:I:118:ILE:HB	1:I:145:SER:HA	1.67	0.76
2:J:84:TRP:HB3	2:J:113:ALA:HB2	1.67	0.76
2:J:102:ARG:NH2	2:J:143:ILE:O	2.18	0.76
2:R:13:ARG:HH11	2:R:13:ARG:H	1.33	0.76
1:A:149:CYS:SG	3:A:401:NAD:H4N	2.25	0.76
1:A:192:ASP:HB2	1:A:195:ARG:HB2	1.68	0.76
1:C:186:ASP:N	1:C:186:ASP:OD1	2.17	0.76
1:C:253:GLU:O	1:C:257:ASN:N	2.18	0.76
1:E:261:LYS:O	1:E:265:GLY:N	2.18	0.76
2:H:126:PRO:HD2	2:H:144:ILE:HA	1.68	0.76
1:I:278:LEU:O	1:K:194:ARG:NH1	2.17	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:20:ARG:HG3	2:R:322:VAL:HG11	1.68	0.76
1:G:139:HIS:HB2	1:G:331:LYS:HB3	1.67	0.76
2:J:269:GLY:O	2:J:320:ARG:NH1	2.17	0.76
2:F:137:TYR:O	2:F:331:LYS:NZ	2.18	0.76
1:I:183:ARG:HG3	1:I:185:LEU:H	1.49	0.76
2:J:13:ARG:HH11	2:J:13:ARG:H	1.34	0.76
2:L:118:ILE:H	2:L:145:SER:HA	1.49	0.76
2:B:78:ASN:HD21	2:B:80:VAL:HG22	1.51	0.76
2:D:312:ASP:OD1	2:D:315:TRP:N	2.18	0.76
1:E:17:ARG:HD3	1:E:44:LEU:HD21	1.66	0.76
1:O:7:GLY:H	1:O:31:ASN:HB3	1.51	0.76
1:O:66:ILE:HG13	1:O:69:LYS:HB2	1.66	0.76
1:Q:154:LEU:HA	1:Q:157:PHE:CZ	2.21	0.76
1:Q:360:LEU:HA	1:I:190:HIS:CD2	2.20	0.76
2:R:3:VAL:HB	2:R:27:VAL:HG22	1.68	0.76
2:R:90:ASP:O	2:R:115:LYS:N	2.17	0.76
1:A:176:HIS:O	1:A:232:VAL:N	2.17	0.76
1:C:237:VAL:HG21	1:C:280:SER:CA	2.16	0.76
2:D:45:LYS:NZ	2:D:55:ALA:O	2.16	0.76
1:E:183:ARG:NH1	1:E:188:SER:O	2.17	0.76
2:F:20:ARG:HG3	2:F:322:VAL:HG11	1.68	0.76
2:L:218:LEU:O	2:L:222:LYS:NZ	2.18	0.76
2:P:184:LEU:HB2	1:Q:184:LEU:HB2	1.68	0.76
1:Q:280:SER:HA	1:Q:310:TRP:HZ3	1.51	0.76
2:D:33:THR:OG1	2:D:77:ARG:NH1	2.19	0.76
2:J:8:PHE:H	2:J:32:ASP:HB2	1.51	0.76
2:J:174:THR:OG1	2:J:311:TYR:OH	2.03	0.76
2:L:33:THR:OG1	2:L:77:ARG:NH1	2.19	0.76
2:L:164:LYS:O	2:L:248:LYS:NZ	2.19	0.76
2:P:137:TYR:O	2:P:331:LYS:NZ	2.19	0.75
1:A:282:ASP:OD1	1:A:282:ASP:N	2.17	0.75
2:B:263:ALA:O	2:B:268:LYS:NZ	2.18	0.75
1:E:257:ASN:HA	1:E:260:ARG:HD2	1.65	0.75
1:I:316:GLY:O	1:I:320:ARG:N	2.20	0.75
1:O:257:ASN:OD1	1:O:260:ARG:NH1	2.18	0.75
1:Q:261:LYS:O	1:Q:265:GLY:N	2.19	0.75
1:A:102:GLY:O	1:A:106:GLY:N	2.13	0.75
2:D:28:VAL:O	2:D:72:LYS:N	2.18	0.75
2:D:177:SER:HA	2:D:234:THR:HG23	1.67	0.75
1:I:132:VAL:O	1:I:135:LYS:NZ	2.19	0.75
1:O:177:SER:OG	1:O:234:THR:O	2.02	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:214:VAL:HG23	2:P:218:LEU:HD12	1.68	0.75
2:R:126:PRO:HD2	2:R:144:ILE:HA	1.67	0.75
2:H:172:MET:HB3	2:H:242:LEU:HB2	1.67	0.75
1:I:185:LEU:HD12	2:L:10:ARG:NH1	2.01	0.75
2:J:116:VAL:HB	2:J:143:ILE:HA	1.66	0.75
1:A:18:CYS:O	1:A:20:ARG:N	2.20	0.75
2:F:165:PHE:HA	2:F:248:LYS:HD3	1.67	0.75
2:H:13:ARG:HH11	2:H:13:ARG:H	1.31	0.75
2:B:269:GLY:O	2:B:320:ARG:NH1	2.19	0.75
1:G:5:ILE:HA	1:G:93:ILE:HB	1.66	0.75
1:I:179:THR:O	1:I:182:GLN:NE2	2.18	0.75
1:K:30:VAL:HG22	1:K:73:VAL:HG22	1.69	0.75
1:O:63:THR:HA	1:O:72:LYS:HA	1.68	0.75
1:O:274:CYS:SG	1:O:275:ASP:N	2.59	0.75
1:A:52:THR:O	1:A:54:LYS:NZ	2.20	0.75
1:A:238:SER:HB3	1:A:311:TYR:CZ	2.22	0.75
2:F:28:VAL:O	2:F:72:LYS:N	2.19	0.75
2:H:172:MET:N	2:H:172:MET:SD	2.60	0.75
1:Q:345:LEU:O	1:Q:349:CYS:N	2.16	0.75
2:R:5:ILE:O	2:R:31:ASN:N	2.20	0.75
1:A:194:ARG:NH1	1:A:205:PRO:O	2.20	0.75
1:A:306:LYS:NZ	1:C:172:MET:O	2.20	0.75
1:G:199:ALA:HA	1:G:231:ARG:HH12	1.51	0.75
2:J:0:LYS:HZ1	2:J:329:ALA:HA	1.52	0.75
1:E:169:LYS:NZ	1:G:300:MET:O	2.19	0.75
2:H:20:ARG:HG3	2:H:322:VAL:HG11	1.68	0.75
2:H:148:SER:OG	2:H:150:THR:OG1	2.04	0.75
1:I:99:PHE:HB3	1:I:104:GLY:HA3	1.69	0.75
1:K:209:GLY:O	1:K:213:ALA:N	2.18	0.75
1:O:16:LEU:HD23	1:O:44:LEU:CD2	2.17	0.75
1:A:146:ASN:OD1	1:A:152:ASN:ND2	2.20	0.75
1:K:212:LYS:O	1:K:215:SER:OG	2.05	0.75
1:O:151:THR:HG22	1:O:210:ALA:HA	1.69	0.74
2:P:202:ASN:ND2	2:R:281:ILE:H	1.84	0.74
2:F:202:ASN:ND2	2:H:281:ILE:H	1.85	0.74
1:G:186:ASP:OD1	1:G:198:ALA:N	2.17	0.74
1:G:205:PRO:HB3	1:G:231:ARG:H	1.51	0.74
2:J:293:ASP:HB3	2:J:308:ILE:HG13	1.67	0.74
2:B:233:PRO:HB2	2:D:233:PRO:HB2	1.67	0.74
1:G:14:ASN:O	1:G:18:CYS:N	2.15	0.74
1:G:89:ILE:O	1:G:114:LYS:NZ	2.18	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:176:HIS:HB3	2:H:231:ARG:HA	1.69	0.74
1:I:174:THR:HG1	1:I:238:SER:HG	1.28	0.74
2:L:312:ASP:OD1	2:L:315:TRP:N	2.19	0.74
1:C:150:THR:O	1:C:154:LEU:N	2.21	0.74
1:E:72:LYS:NZ	1:E:73:VAL:O	2.20	0.74
1:I:245:ASN:HA	1:I:304:MET:HA	1.67	0.74
2:J:293:ASP:OD1	2:J:296:LEU:N	2.20	0.74
1:Q:146:ASN:OD1	1:Q:152:ASN:ND2	2.20	0.74
1:Q:253:GLU:O	1:Q:257:ASN:N	2.18	0.74
1:A:128:TYR:O	1:A:146:ASN:ND2	2.18	0.74
2:B:2:LYS:NZ	2:B:26:ASP:O	2.21	0.74
1:G:182:GLN:HE22	1:G:197:ARG:H	1.35	0.74
1:O:18(B):HIS:CG	1:O:69:LYS:HZ1	2.06	0.74
2:R:157:PHE:O	2:R:161:LEU:N	2.18	0.74
2:R:181:ASP:HB3	2:R:182:GLN:HE21	1.52	0.74
1:C:136:ASP:N	1:C:136:ASP:OD1	2.19	0.74
2:D:314:GLU:OE2	3:D:401:NAD:N7N	2.21	0.74
2:F:214:VAL:HG23	2:F:218:LEU:HD12	1.68	0.74
1:G:17:ARG:NH1	1:G:44:LEU:O	2.19	0.74
2:H:157:PHE:O	2:H:161:LEU:N	2.17	0.74
1:I:49:ILE:O	1:I:284:ARG:NH2	2.20	0.74
2:L:317:TYR:O	2:L:321:VAL:N	2.18	0.74
1:C:179:THR:N	1:C:182:GLN:OE1	2.18	0.74
2:D:206:THR:HG21	2:D:231:ARG:HE	1.51	0.74
1:E:177:SER:OG	1:E:234:THR:O	2.04	0.74
2:F:115:LYS:HD3	2:F:142:THR:HA	1.70	0.74
1:I:2:LYS:HA	1:I:26:ASP:HB2	1.69	0.74
1:K:274:CYS:N	1:K:292:ILE:O	2.18	0.74
1:Q:127:THR:O	1:Q:133:ASN:ND2	2.20	0.74
1:E:130:VAL:HA	1:E:134:GLU:HB3	1.69	0.74
1:G:5:ILE:HG13	1:G:27:VAL:HG21	1.69	0.74
1:K:96:THR:HA	3:K:401:NAD:H52A	1.70	0.74
2:P:194:ARG:HD3	2:P:205:PRO:HD2	1.70	0.74
1:K:183:ARG:HG3	1:K:188:SER:H	1.52	0.74
2:B:174:THR:HG1	2:B:311:TYR:HH	1.35	0.74
2:D:8:PHE:O	2:D:13:ARG:NH2	2.14	0.74
2:L:49:ILE:HG23	2:L:284:ARG:HH11	1.53	0.74
2:L:103:ASP:OD1	2:L:103:ASP:N	2.20	0.74
2:R:32:ASP:HA	3:R:401:NAD:H2A	1.70	0.74
1:A:11:ILE:O	1:A:15:PHE:N	2.15	0.74
2:B:161:LEU:HB3	2:B:167:ILE:HD11	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:21:LYS:HD3	1:C:21:LYS:H	1.53	0.74
1:O:253:GLU:OE1	1:O:257:ASN:ND2	2.21	0.73
2:R:186:ASP:OD2	2:R:197:ARG:NH1	2.20	0.73
2:B:293:ASP:HB3	2:B:308:ILE:HG13	1.68	0.73
2:D:5:ILE:HB	2:D:30:ILE:HG23	1.70	0.73
1:E:221:LEU:HD12	1:E:224:LYS:HD2	1.70	0.73
1:E:267:LEU:HB3	1:E:271:LEU:HB2	1.70	0.73
2:F:244:VAL:HG23	2:F:305:VAL:HB	1.69	0.73
2:H:174:THR:HA	2:H:240:VAL:HA	1.69	0.73
2:L:148:SER:OG	2:L:150:THR:OG1	2.06	0.73
1:O:176:HIS:HB3	1:O:231:ARG:HA	1.70	0.73
2:R:25:LEU:HB3	2:R:27:VAL:HG23	1.70	0.73
2:R:148:SER:OG	2:R:150:THR:OG1	2.04	0.73
1:G:29:VAL:HB	1:G:72:LYS:HB2	1.71	0.73
2:J:167:ILE:HA	2:J:246:VAL:HA	1.69	0.73
2:P:116:VAL:HB	2:P:143:ILE:HA	1.69	0.73
2:D:176:HIS:N	2:D:230:LEU:O	2.21	0.73
1:E:33:SER:CB	1:E:77:ARG:NH1	2.50	0.73
2:H:90:ASP:O	2:H:115:LYS:N	2.18	0.73
1:O:176:HIS:O	1:O:232:VAL:N	2.18	0.73
1:O:179:THR:OG1	1:O:181:ASP:OD1	2.07	0.73
1:O:289:SER:OG	1:O:320:ARG:NH1	2.21	0.73
2:P:233:PRO:HB2	2:R:233:PRO:HB2	1.71	0.73
2:B:0:LYS:HZ1	2:B:329:ALA:HA	1.51	0.73
2:B:293:ASP:OD1	2:B:296:LEU:N	2.20	0.73
1:E:184:LEU:HG	1:E:185:LEU:HD22	1.69	0.73
1:G:41:THR:O	1:G:45:LYS:N	2.17	0.73
1:K:165:LEU:HB3	1:K:246:ILE:HD11	1.70	0.73
2:R:244:VAL:HG23	2:R:305:VAL:HB	1.71	0.73
1:C:17:ARG:NH1	1:C:45:LYS:O	2.21	0.73
2:F:18:CYS:O	2:F:20:ARG:N	2.13	0.73
1:I:12:GLY:O	1:I:16:LEU:N	2.20	0.73
2:J:161:LEU:HB3	2:J:167:ILE:HD11	1.70	0.73
2:P:215:ALA:O	2:P:222:LYS:NZ	2.15	0.73
2:P:318:SER:O	2:P:322:VAL:N	2.16	0.73
2:R:174:THR:HA	2:R:240:VAL:HA	1.70	0.73
1:A:2:LYS:HB2	1:A:90:ASP:H	1.51	0.73
1:A:257:ASN:HA	1:A:260:ARG:HD2	1.70	0.73
1:E:314:GLU:O	1:E:318:SER:N	2.16	0.73
2:F:233:PRO:HB2	2:H:233:PRO:HB2	1.70	0.73
2:H:5:ILE:O	2:H:31:ASN:N	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:298:MET:HB3	1:Q:306:LYS:HB3	1.70	0.73
1:A:279:VAL:HB	1:C:202:ASN:HB3	1.69	0.73
2:H:244:VAL:HG23	2:H:305:VAL:HB	1.70	0.73
1:O:157:PHE:O	1:O:161:LEU:N	2.19	0.73
1:O:232:VAL:HG22	1:O:234:THR:HG22	1.70	0.73
2:P:244:VAL:HG23	2:P:305:VAL:HB	1.69	0.73
1:Q:129:VAL:N	1:Q:133:ASN:OD1	2.17	0.73
1:C:132:VAL:N	1:C:134:GLU:OE2	2.22	0.73
1:E:117:ILE:HD11	1:E:146:ASN:HB3	1.71	0.73
2:F:249:LYS:HD2	2:F:302:ASP:HB2	1.69	0.73
2:H:238:SER:O	2:H:311:TYR:N	2.21	0.73
2:P:249:LYS:HD2	2:P:302:ASP:HB2	1.69	0.73
2:R:28:VAL:HA	2:R:71:ILE:HG12	1.71	0.73
1:E:277:PRO:HG2	1:G:193:LEU:HD22	1.69	0.73
2:H:149:CYS:SG	3:H:401:NAD:N7N	2.57	0.73
1:I:18:CYS:O	1:I:20:ARG:N	2.16	0.73
2:L:224:LYS:HZ3	2:L:225:LEU:HB2	1.53	0.73
1:O:37:VAL:HG12	1:O:62:GLU:O	1.88	0.73
2:P:28:VAL:O	2:P:72:LYS:N	2.22	0.73
1:A:30:VAL:O	1:A:74:VAL:N	2.21	0.73
2:B:167:ILE:HA	2:B:246:VAL:HA	1.70	0.73
2:D:158:VAL:HA	2:D:161:LEU:HB3	1.70	0.73
1:I:125:ILE:HG21	1:I:144:ILE:HA	1.71	0.73
2:L:65:SER:HA	2:L:70:VAL:HA	1.70	0.73
1:O:92:VAL:N	1:O:115:LYS:O	2.22	0.72
2:P:154:LEU:HD21	2:P:210:ALA:HB1	1.71	0.72
1:Q:11:ILE:O	1:Q:14:ASN:ND2	2.21	0.72
2:B:13:ARG:HH11	2:B:13:ARG:H	1.35	0.72
1:C:18(B):HIS:NE2	1:C:67:ASP:OD2	2.22	0.72
2:D:65:SER:HA	2:D:70:VAL:HA	1.69	0.72
2:F:46:TYR:HA	2:F:52:THR:HA	1.71	0.72
1:G:199:ALA:HB2	1:G:231:ARG:NH1	2.02	0.72
2:H:165:PHE:O	2:H:247:SER:OG	2.06	0.72
2:J:2:LYS:NZ	2:J:26:ASP:O	2.22	0.72
2:J:13:ARG:O	2:J:17:ARG:N	2.20	0.72
2:L:9:GLY:O	2:L:13:ARG:NH1	2.22	0.72
2:L:244:VAL:HG23	2:L:305:VAL:HB	1.70	0.72
2:R:238:SER:O	2:R:311:TYR:N	2.21	0.72
1:C:177:SER:OG	1:C:234:THR:O	2.05	0.72
2:D:209:GLY:O	2:D:213:ALA:N	2.21	0.72
2:F:109:LEU:HD21	2:F:116:VAL:HG23	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:346:GLU:HA	1:G:349:CYS:HB2	1.71	0.72
3:G:401:NAD:N7N	3:G:401:NAD:O1N	2.22	0.72
2:L:17:ARG:NH2	2:L:54:ASP:OD1	2.23	0.72
2:L:45:LYS:NZ	2:L:55:ALA:O	2.21	0.72
2:P:109:LEU:HD21	2:P:116:VAL:HG23	1.71	0.72
1:Q:137:TYR:O	1:Q:331:LYS:NZ	2.22	0.72
1:Q:165:LEU:HG	1:Q:248:LYS:HD2	1.70	0.72
1:E:8:PHE:CZ	1:E:16:LEU:HD23	2.25	0.72
1:I:238:SER:HB3	1:I:311:TYR:CZ	2.24	0.72
2:J:184:LEU:HB2	1:K:184:LEU:HB2	1.69	0.72
1:O:318:SER:OG	1:O:319:GLN:OE1	2.06	0.72
1:Q:148:SER:O	1:Q:152:ASN:ND2	2.22	0.72
1:A:202:ASN:HD21	1:C:281:VAL:HG12	1.53	0.72
1:C:346:GLU:O	1:C:350:LYS:N	2.18	0.72
1:E:112:GLY:O	1:E:114:LYS:NZ	2.22	0.72
1:G:261:LYS:O	1:G:265:GLY:N	2.21	0.72
1:I:29:VAL:HG22	1:I:72:LYS:HB2	1.72	0.72
1:I:158:VAL:HA	1:I:161:LEU:HB2	1.70	0.72
2:J:282:ASP:OD1	2:J:282:ASP:N	2.14	0.72
1:K:28:VAL:HG13	1:K:29:VAL:HG12	1.70	0.72
2:P:179:THR:OG1	2:P:182:GLN:NE2	2.23	0.72
1:Q:72:LYS:NZ	1:Q:73:VAL:O	2.22	0.72
2:R:5:ILE:HB	2:R:30:ILE:HG23	1.71	0.72
1:A:259:PHE:O	1:A:263:ALA:N	2.20	0.72
2:B:84:TRP:HB3	2:B:113:ALA:HB2	1.70	0.72
2:H:273:VAL:HA	2:H:292:ILE:H	1.53	0.72
1:O:37:VAL:HG13	1:O:62:GLU:N	2.00	0.72
1:A:2:LYS:NZ	1:A:87:LEU:O	2.23	0.72
1:C:315:TRP:O	1:C:318:SER:OG	2.05	0.72
2:D:103:ASP:OD1	2:D:103:ASP:N	2.20	0.72
2:F:116:VAL:HB	2:F:143:ILE:HA	1.72	0.72
2:F:172:MET:SD	2:F:172:MET:N	2.58	0.72
2:F:202:ASN:HD21	2:H:281:ILE:HG22	1.54	0.72
1:G:94:GLU:HB3	1:G:118:ILE:HG23	1.71	0.72
1:O:293:ASP:OD2	1:O:296:LEU:N	2.23	0.72
1:Q:6:ASN:HB3	1:Q:94:GLU:HA	1.72	0.72
1:Q:289:SER:HB2	1:Q:320:ARG:HD2	1.71	0.72
2:R:165:PHE:O	2:R:247:SER:OG	2.06	0.72
2:R:231:ARG:HH12	3:R:401:NAD:H5N	1.54	0.72
1:A:185:LEU:CD1	2:D:10:ARG:CZ	2.67	0.72
1:G:137:TYR:O	1:G:331:LYS:NZ	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:138:GLY:HA3	1:G:140:VAL:HB	1.72	0.72
1:G:253:GLU:O	1:G:257:ASN:N	2.20	0.72
1:O:82:LEU:HB3	1:O:84:TRP:CZ2	2.24	0.72
1:A:172:MET:HA	1:A:242:LEU:HA	1.72	0.72
1:C:6:ASN:N	1:C:93:ILE:O	2.18	0.72
1:C:282:ASP:N	1:C:282:ASP:OD1	2.21	0.72
2:H:299:VAL:HG13	2:H:305:VAL:HG22	1.71	0.72
1:I:45:LYS:NZ	1:I:53:PHE:O	2.21	0.72
1:I:251:THR:OG1	1:I:253:GLU:OE1	2.07	0.72
1:O:178:TYR:HD2	1:O:233:PRO:HA	1.55	0.72
2:D:9:GLY:O	2:D:13:ARG:NH1	2.23	0.72
1:E:177:SER:HA	1:E:234:THR:HG23	1.70	0.72
1:E:194:ARG:NH1	1:E:205:PRO:O	2.22	0.72
2:F:154:LEU:HD21	2:F:210:ALA:HB1	1.70	0.72
2:P:281:ILE:HG22	2:R:202:ASN:HD21	1.55	0.72
2:R:9:GLY:O	2:R:13:ARG:NH1	2.23	0.72
2:R:172:MET:N	2:R:172:MET:SD	2.60	0.72
2:R:183:ARG:HD2	2:R:187:ALA:HB3	1.72	0.72
2:R:186:ASP:HB3	2:R:197:ARG:HA	1.72	0.72
1:E:47:ASP:OD2	1:E:50:LEU:N	2.18	0.72
1:G:174:THR:HA	1:G:240:VAL:HA	1.71	0.72
1:K:13:ARG:O	1:K:17:ARG:N	2.16	0.72
1:Q:238:SER:OG	1:Q:311:TYR:O	2.03	0.71
1:A:1:LEU:O	1:A:26:ASP:N	2.22	0.71
1:A:19:GLY:O	1:A:21:LYS:NZ	2.23	0.71
2:B:5:ILE:HB	2:B:30:ILE:HG23	1.72	0.71
2:J:165:PHE:O	2:J:247:SER:OG	2.08	0.71
2:P:6:ASN:OD1	2:P:31:ASN:ND2	2.23	0.71
1:Q:37:VAL:HG11	1:Q:59:ILE:CG2	2.16	0.71
1:C:13:ARG:O	1:C:17:ARG:N	2.22	0.71
1:E:271:LEU:HD22	1:E:290:SER:HB3	1.72	0.71
1:Q:57:VAL:HG22	1:Q:66:ILE:HG23	1.70	0.71
2:R:30:ILE:N	2:R:72:LYS:O	2.23	0.71
1:A:358:CYS:SG	1:G:191:ARG:NH2	2.63	0.71
2:B:281:ILE:H	2:D:202:ASN:ND2	1.88	0.71
1:G:37:VAL:O	1:G:41:THR:N	2.19	0.71
2:H:118:ILE:H	2:H:145:SER:HA	1.56	0.71
2:J:90:ASP:OD1	2:J:90:ASP:N	2.24	0.71
1:K:278:LEU:HB3	1:K:282:ASP:HB2	1.72	0.71
2:L:149:CYS:O	2:L:153:CYS:N	2.20	0.71
1:Q:194:ARG:HH21	1:Q:204:VAL:HA	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:273:VAL:HA	2:R:292:ILE:H	1.54	0.71
1:A:134:GLU:HG2	1:A:135:LYS:HD3	1.72	0.71
2:B:176:HIS:ND1	2:B:177:SER:O	2.22	0.71
2:D:218:LEU:O	2:D:222:LYS:NZ	2.22	0.71
1:E:25:LEU:HD11	1:E:329:ALA:HB2	1.71	0.71
1:E:136:ASP:N	1:E:136:ASP:OD1	2.20	0.71
2:F:194:ARG:NH1	2:H:278:LEU:O	2.24	0.71
1:G:129:VAL:N	1:G:133:ASN:OD1	2.19	0.71
1:K:182:GLN:OE1	1:K:231:ARG:NH2	2.23	0.71
1:Q:355:ASP:O	1:Q:359:LYS:N	2.24	0.71
2:R:109:LEU:HA	2:R:113:ALA:HB3	1.72	0.71
2:B:63:ALA:HB1	2:B:70:VAL:HG23	1.73	0.71
1:E:203:ILE:HA	1:E:232:VAL:HG12	1.71	0.71
1:E:236:ASN:H	1:E:284:ARG:HH22	1.36	0.71
2:F:252:ALA:O	2:F:256:ASN:N	2.24	0.71
2:H:25:LEU:HB3	2:H:27:VAL:HG23	1.72	0.71
2:H:103:ASP:N	2:H:103:ASP:OD1	2.24	0.71
1:I:38:LYS:O	1:I:42:HIS:ND1	2.23	0.71
2:J:281:ILE:HG22	2:L:202:ASN:HD21	1.55	0.71
1:K:149:CYS:O	1:K:153:CYS:N	2.22	0.71
1:A:257:ASN:OD1	1:A:260:ARG:NH1	2.23	0.71
1:C:0:LYS:HZ3	1:C:1:LEU:HB2	1.55	0.71
1:C:30:VAL:O	1:C:74:VAL:N	2.23	0.71
2:D:49:ILE:HG23	2:D:284:ARG:HH11	1.54	0.71
2:F:148:SER:HA	3:F:401:NAD:H4N	1.71	0.71
2:L:242:LEU:O	2:L:307:VAL:N	2.23	0.71
1:O:162:ASP:OD1	1:O:167:ILE:N	2.20	0.71
2:P:46:TYR:HA	2:P:52:THR:HA	1.71	0.71
2:R:250:THR:H	2:R:302:ASP:HB3	1.56	0.71
2:D:149:CYS:SG	2:D:150:THR:N	2.63	0.71
2:D:164:LYS:O	2:D:248:LYS:NZ	2.24	0.71
1:G:112:GLY:O	1:G:114:LYS:NZ	2.24	0.71
2:H:3:VAL:HB	2:H:27:VAL:HG22	1.71	0.71
2:J:80:VAL:HA	2:J:111:ALA:HB2	1.72	0.71
1:K:346:GLU:O	1:K:350:LYS:N	2.20	0.71
2:L:158:VAL:HA	2:L:161:LEU:HB3	1.72	0.71
1:O:153:CYS:SG	1:O:154:LEU:N	2.64	0.71
1:C:321:VAL:HA	1:C:324:LEU:HB2	1.73	0.71
2:D:244:VAL:HG23	2:D:305:VAL:HB	1.70	0.71
2:F:194:ARG:HD3	2:F:205:PRO:HD2	1.72	0.71
1:I:323:ASP:OD1	1:I:323:ASP:N	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:84:TRP:O	1:K:88:GLY:N	2.24	0.71
2:L:13:ARG:O	2:L:17:ARG:N	2.22	0.71
1:Q:315:TRP:NE1	1:Q:319:GLN:OE1	2.23	0.71
2:F:176:HIS:N	2:F:230:LEU:O	2.24	0.71
1:I:202:ASN:ND2	1:I:203:ILE:O	2.23	0.71
1:O:3:VAL:HG21	1:O:25:LEU:HB3	1.71	0.71
1:A:195:ARG:HH12	1:G:361:TYR:HA	1.55	0.71
1:C:358:CYS:SG	1:C:359:LYS:N	2.62	0.71
2:D:139:HIS:HB3	2:D:333:GLN:HB2	1.73	0.71
1:E:256:ASN:ND2	1:E:294:SER:OG	2.24	0.71
1:G:136:ASP:N	1:G:136:ASP:OD1	2.23	0.71
1:K:13:ARG:H	1:K:13:ARG:CZ	2.03	0.71
1:K:179:THR:OG1	1:K:231:ARG:NH2	2.24	0.71
1:K:349:CYS:O	1:K:353:PRO:N	2.24	0.71
2:L:176:HIS:N	2:L:230:LEU:O	2.24	0.71
1:O:293:ASP:HB3	1:O:308:VAL:HG21	1.73	0.70
2:P:267:LEU:HD22	2:P:271:LEU:HD23	1.73	0.70
1:A:165:LEU:HG	1:A:248:LYS:HZ3	1.55	0.70
1:G:319:GLN:O	1:G:323:ASP:N	2.21	0.70
2:L:38:LYS:O	2:L:42:HIS:ND1	2.24	0.70
1:Q:212:LYS:HZ2	1:Q:212:LYS:H	1.39	0.70
1:A:26:ASP:N	1:A:26:ASP:OD1	2.23	0.70
1:A:190:HIS:HE1	1:A:191:ARG:HH21	1.39	0.70
1:A:255:VAL:O	1:A:259:PHE:N	2.23	0.70
1:A:272:ASP:OD1	1:A:273:VAL:N	2.24	0.70
1:E:292:ILE:HG13	1:E:309:ALA:HB2	1.73	0.70
1:E:293:ASP:OD1	1:E:296:LEU:N	2.16	0.70
1:G:257:ASN:HA	1:G:260:ARG:HB2	1.73	0.70
2:H:184:LEU:HG	2:H:185:LEU:HD22	1.72	0.70
1:K:169:LYS:HA	1:K:224:LYS:HE3	1.72	0.70
2:P:64:ILE:H	2:P:71:ILE:H	1.38	0.70
1:C:6:ASN:HB3	1:C:94:GLU:HA	1.71	0.70
1:C:31:ASN:ND2	1:C:76:ASN:O	2.22	0.70
1:E:41:THR:C	1:E:45:LYS:HG2	2.11	0.70
1:K:41:THR:HA	1:K:44:LEU:HD23	1.73	0.70
2:L:149:CYS:SG	2:L:150:THR:N	2.63	0.70
2:P:18:CYS:O	2:P:20:ARG:N	2.14	0.70
2:P:118:ILE:HG22	2:P:120:ALA:H	1.56	0.70
2:P:204:VAL:HB	2:P:231:ARG:HB2	1.72	0.70
2:B:183:ARG:HG3	2:B:187:ALA:HB3	1.71	0.70
2:F:209:GLY:O	2:F:213:ALA:N	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:222:LYS:H	2:F:224:LYS:HZ3	1.40	0.70
1:K:101:ASP:HB2	1:K:103:PRO:HG2	1.73	0.70
1:K:107:LYS:O	1:K:111:ALA:N	2.25	0.70
2:L:314:GLU:OE2	3:L:401:NAD:N7N	2.23	0.70
2:B:165:PHE:O	2:B:247:SER:OG	2.09	0.70
1:C:149:CYS:HA	1:C:152:ASN:HB3	1.74	0.70
1:C:149:CYS:O	1:C:153:CYS:N	2.23	0.70
2:F:8:PHE:H	2:F:32:ASP:HB2	1.57	0.70
2:F:148:SER:OG	2:F:150:THR:OG1	2.08	0.70
2:F:173:THR:OG1	2:H:306:LYS:NZ	2.24	0.70
1:G:168:VAL:O	1:G:169:LYS:NZ	2.24	0.70
2:R:2:LYS:NZ	2:R:26:ASP:OD2	2.23	0.70
2:B:46:TYR:HA	2:B:52:THR:HA	1.71	0.70
2:B:174:THR:OG1	2:B:311:TYR:OH	2.06	0.70
2:D:264:ASP:O	2:D:268:LYS:NZ	2.16	0.70
1:E:30:VAL:HB	1:E:73:VAL:HG12	1.72	0.70
1:G:181:ASP:OD2	1:G:195:ARG:NH1	2.24	0.70
1:I:237:VAL:HA	1:I:312:ASP:HA	1.73	0.70
2:J:148:SER:OG	2:J:150:THR:OG1	2.07	0.70
2:D:13:ARG:O	2:D:17:ARG:N	2.22	0.70
2:F:318:SER:O	2:F:322:VAL:N	2.17	0.70
1:G:188:SER:OG	1:G:190:HIS:N	2.22	0.70
2:H:38:LYS:O	2:H:42:HIS:ND1	2.25	0.70
2:H:293:ASP:OD1	2:H:295:SER:OG	2.10	0.70
1:O:312:ASP:OD2	1:O:315:TRP:N	2.18	0.70
1:A:243:VAL:HG22	1:A:306:LYS:HG3	1.74	0.70
2:B:170:GLY:HA3	2:B:225:LEU:HD13	1.74	0.70
1:E:25:LEU:HG	1:E:325:ALA:HB1	1.72	0.70
2:F:176:HIS:ND1	2:F:177:SER:O	2.25	0.70
2:H:8:PHE:H	2:H:32:ASP:HB2	1.56	0.70
2:P:115:LYS:HD3	2:P:142:THR:HA	1.74	0.70
1:A:158:VAL:HA	1:A:161:LEU:HB2	1.72	0.70
2:F:204:VAL:HB	2:F:231:ARG:HB2	1.73	0.70
2:J:9:GLY:O	2:J:13:ARG:NH1	2.25	0.70
2:L:209:GLY:O	2:L:213:ALA:N	2.19	0.70
1:O:137:TYR:O	1:O:331:LYS:NZ	2.25	0.70
2:P:176:HIS:ND1	2:P:177:SER:O	2.25	0.70
2:R:127:THR:OG1	2:R:133:ASN:ND2	2.25	0.70
1:C:232:VAL:HG22	1:C:234:THR:HG22	1.73	0.70
2:F:20:ARG:NH2	2:F:323:ASP:OD1	2.22	0.70
1:I:167:ILE:N	1:I:247:GLU:OE1	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:271:LEU:HD22	1:I:289:SER:HB3	1.73	0.70
2:P:13:ARG:HH11	2:P:13:ARG:H	1.39	0.69
2:P:176:HIS:N	2:P:230:LEU:O	2.24	0.69
1:Q:208:THR:O	1:Q:212:LYS:NZ	2.25	0.69
2:R:256:ASN:HB3	2:R:294:SER:HB2	1.74	0.69
1:C:13:ARG:H	1:C:13:ARG:CZ	2.04	0.69
1:C:106:GLY:HA2	1:C:109:ILE:HB	1.74	0.69
1:E:246:ILE:H	1:E:304:MET:HA	1.56	0.69
2:F:176:HIS:O	2:F:232:VAL:N	2.16	0.69
2:F:179:THR:OG1	2:F:182:GLN:NE2	2.25	0.69
2:F:240:VAL:N	2:F:309:ALA:O	2.25	0.69
1:G:60(A):ASP:OD1	1:G:61:ASN:ND2	2.25	0.69
1:G:238:SER:HB3	1:G:311:TYR:CD2	2.27	0.69
2:H:109:LEU:HA	2:H:113:ALA:HB3	1.74	0.69
1:K:252:ALA:O	1:K:256:ASN:ND2	2.25	0.69
2:R:118:ILE:H	2:R:145:SER:HA	1.56	0.69
2:R:299:VAL:HG13	2:R:305:VAL:HG22	1.72	0.69
2:B:2:LYS:O	2:B:90:ASP:N	2.25	0.69
2:B:9:GLY:O	2:B:13:ARG:NH1	2.25	0.69
1:C:8:PHE:CZ	1:C:13:ARG:HB3	2.27	0.69
2:P:172:MET:O	2:R:306:LYS:NZ	2.26	0.69
1:Q:171:THR:N	1:Q:243:VAL:O	2.24	0.69
1:Q:174:THR:HA	1:Q:240:VAL:HA	1.74	0.69
1:E:10:ARG:N	3:E:401:NAD:O2N	2.25	0.69
1:E:20:ARG:HH21	1:E:21:LYS:HB2	1.57	0.69
1:I:221:LEU:HA	1:I:224:LYS:HD2	1.74	0.69
2:J:17:ARG:NH1	2:J:51:GLY:O	2.24	0.69
2:L:206:THR:HG21	2:L:231:ARG:HE	1.58	0.69
2:P:20:ARG:NH2	2:P:323:ASP:OD1	2.22	0.69
2:D:318:SER:O	2:D:322:VAL:N	2.18	0.69
1:E:162:ASP:OD1	1:E:167:ILE:N	2.21	0.69
2:F:172:MET:O	2:H:306:LYS:NZ	2.25	0.69
2:J:179:THR:OG1	2:J:182:GLN:NE2	2.22	0.69
1:K:244:VAL:HG23	1:K:305:VAL:HG13	1.74	0.69
1:O:161:LEU:O	1:O:165:LEU:N	2.25	0.69
1:O:162:ASP:O	1:O:166:GLY:N	2.26	0.69
2:P:172:MET:HA	2:P:242:LEU:HA	1.74	0.69
2:P:222:LYS:H	2:P:224:LYS:HZ3	1.38	0.69
2:B:13:ARG:O	2:B:17:ARG:N	2.20	0.69
1:I:293:ASP:OD2	1:I:296:LEU:N	2.25	0.69
1:K:10:ARG:O	1:K:14:ASN:ND2	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:172:MET:HB2	1:O:242:LEU:HB2	1.75	0.69
2:P:9:GLY:O	2:P:13:ARG:NH1	2.25	0.69
1:A:129:VAL:HG12	1:A:133:ASN:HD21	1.57	0.69
2:B:90:ASP:N	2:B:90:ASP:OD1	2.24	0.69
2:B:115:LYS:NZ	2:B:141:ASP:O	2.22	0.69
2:B:117:LEU:HG	2:B:145:SER:HA	1.75	0.69
2:D:242:LEU:O	2:D:307:VAL:N	2.23	0.69
1:E:8:PHE:CZ	1:E:44:LEU:HD12	2.28	0.69
1:G:46:TYR:HA	1:G:52:THR:HA	1.75	0.69
2:H:8:PHE:CZ	2:H:13:ARG:HG3	2.28	0.69
2:H:104:GLY:O	2:H:108:HIS:N	2.24	0.69
1:O:141:ALA:HB2	1:C:103:PRO:HG3	1.75	0.69
1:O:325:ALA:O	1:O:329:ALA:N	2.21	0.69
2:P:306:LYS:NZ	2:R:172:MET:O	2.26	0.69
1:Q:294:SER:O	1:Q:297:THR:OG1	2.10	0.69
2:B:80:VAL:HA	2:B:111:ALA:HB2	1.73	0.69
1:E:236:ASN:ND2	1:E:236:ASN:O	2.25	0.69
2:H:209:GLY:O	2:H:213:ALA:N	2.18	0.69
2:J:164:LYS:O	2:J:248:LYS:NZ	2.22	0.69
2:L:174:THR:HA	2:L:240:VAL:HA	1.75	0.69
2:L:279:VAL:HA	2:L:310:TRP:CH2	2.28	0.69
1:O:136:ASP:OD1	1:O:136:ASP:N	2.24	0.69
1:O:181:ASP:OD2	1:O:231:ARG:NH1	2.24	0.69
2:P:202:ASN:HD21	2:R:281:ILE:HG22	1.58	0.69
1:Q:248(A):VAL:HG22	1:Q:250:VAL:HG13	1.74	0.69
2:R:148:SER:O	2:R:152:ASN:N	2.20	0.69
1:A:186:ASP:OD1	1:A:198:ALA:N	2.24	0.69
2:B:17:ARG:NH1	2:B:51:GLY:O	2.26	0.69
1:C:348:PHE:O	1:C:352:ASN:N	2.24	0.69
2:D:148:SER:OG	2:D:150:THR:OG1	2.10	0.69
2:D:174:THR:HA	2:D:240:VAL:HA	1.75	0.69
2:F:253:GLU:OE2	2:F:260:ARG:NH1	2.22	0.69
2:F:267:LEU:HD22	2:F:271:LEU:HD23	1.74	0.69
2:H:28:VAL:O	2:H:72:LYS:N	2.18	0.69
2:H:45:LYS:NZ	2:H:55:ALA:O	2.25	0.69
2:H:148:SER:O	2:H:152:ASN:N	2.20	0.69
1:Q:312:ASP:OD1	1:Q:315:TRP:N	2.26	0.69
2:R:197:ARG:HH21	2:R:199:ALA:H	1.41	0.69
2:D:78:ASN:HB3	2:D:81:ASN:HB2	1.75	0.69
1:E:5:ILE:HB	1:E:30:VAL:HG13	1.75	0.69
2:F:6:ASN:OD1	2:F:31:ASN:ND2	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:306:LYS:HZ2	2:H:228:ILE:H	1.40	0.69
1:G:255:VAL:O	1:G:259:PHE:N	2.23	0.69
1:G:293:ASP:OD2	1:G:296:LEU:N	2.16	0.69
2:H:9:GLY:O	2:H:13:ARG:NH1	2.25	0.69
1:O:37:VAL:CG2	1:O:59:ILE:CG2	2.71	0.69
2:P:10:ARG:NH1	1:Q:185:LEU:HD22	2.07	0.69
2:P:148:SER:OG	2:P:150:THR:OG1	2.08	0.69
2:P:214:VAL:O	2:P:218:LEU:N	2.25	0.69
2:P:242:LEU:O	2:P:307:VAL:N	2.26	0.69
2:R:102:ARG:HH22	2:R:126:PRO:HD3	1.57	0.69
2:R:183:ARG:NE	2:R:188:SER:O	2.26	0.69
1:A:99:PHE:HB3	1:A:104:GLY:HA3	1.75	0.69
1:C:90:ASP:O	1:C:114:LYS:N	2.16	0.69
2:D:18(A):TRP:NE1	2:D:23:SER:OG	2.26	0.69
2:D:279:VAL:HA	2:D:310:TRP:CH2	2.27	0.69
2:F:197:ARG:NH1	1:G:46:TYR:O	2.19	0.69
1:G:154:LEU:HA	1:G:157:PHE:CZ	2.27	0.69
2:H:236:ASN:OD1	2:H:284:ARG:NH1	2.26	0.69
2:L:249:LYS:HD2	2:L:302:ASP:HB2	1.75	0.69
1:O:346:GLU:O	1:O:350:LYS:N	2.18	0.68
1:C:28:VAL:O	1:C:72:LYS:N	2.17	0.68
1:C:64:PHE:HE1	1:C:73:VAL:HG23	1.56	0.68
1:E:8:PHE:HZ	1:E:44:LEU:HD12	1.58	0.68
1:G:4:ALA:HA	1:G:27:VAL:HG13	1.74	0.68
2:H:102:ARG:HH22	2:H:126:PRO:HD3	1.56	0.68
2:J:32:ASP:OD2	3:J:401:NAD:H1B	1.92	0.68
1:K:36:GLY:O	1:K:39:SER:OG	2.11	0.68
2:L:139:HIS:HB3	2:L:333:GLN:HB2	1.74	0.68
2:D:176:HIS:O	2:D:232:VAL:N	2.26	0.68
1:E:94:GLU:OE2	1:E:96:THR:OG1	2.10	0.68
2:F:172:MET:HA	2:F:242:LEU:HA	1.74	0.68
1:G:47:ASP:OD2	1:G:50:LEU:N	2.18	0.68
1:K:60:ILE:H	1:K:64:PHE:HA	1.59	0.68
1:Q:5:ILE:HB	1:Q:30:VAL:HA	1.74	0.68
2:R:41:SER:HB2	2:R:57:VAL:HG13	1.75	0.68
1:C:115:LYS:HE2	1:C:142:ASN:HA	1.74	0.68
2:D:103:ASP:O	2:D:107:LYS:N	2.25	0.68
1:E:215:SER:O	1:E:222:LYS:NZ	2.27	0.68
2:F:89:ILE:O	2:F:114:LYS:NZ	2.24	0.68
2:F:117:LEU:HD21	2:F:146:ASN:HB2	1.75	0.68
2:F:281:ILE:H	2:H:202:ASN:HD21	1.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:2:LYS:NZ	2:H:26:ASP:OD2	2.24	0.68
1:I:239:VAL:HB	1:I:310:TRP:CD2	2.27	0.68
2:J:115:LYS:NZ	2:J:141:ASP:O	2.23	0.68
2:P:38:LYS:O	2:P:41:SER:OG	2.07	0.68
2:R:220:ASN:O	2:R:224:LYS:NZ	2.23	0.68
1:E:206:THR:H	1:E:228:ILE:HD12	1.58	0.68
1:G:64:PHE:O	1:G:71:ILE:N	2.17	0.68
1:G:237:VAL:O	1:G:313:ASN:ND2	2.26	0.68
1:G:239:VAL:HA	1:G:310:TRP:HA	1.75	0.68
1:I:314:GLU:HG2	3:I:401:NAD:H72N	1.59	0.68
1:K:275:ASP:N	1:K:275:ASP:OD1	2.25	0.68
2:L:18(A):TRP:NE1	2:L:23:SER:OG	2.26	0.68
1:E:274:CYS:SG	1:E:275:ASP:N	2.66	0.68
1:E:278:LEU:O	1:G:194:ARG:NH2	2.27	0.68
2:F:122:GLY:HA3	2:F:125:ILE:HG12	1.73	0.68
2:H:110:GLN:OE1	2:H:111:ALA:N	2.27	0.68
1:I:257:ASN:OD1	1:I:260:ARG:NH1	2.26	0.68
2:L:86:ASP:OD1	2:L:86:ASP:N	2.25	0.68
2:L:238:SER:O	2:L:311:TYR:N	2.27	0.68
1:O:218:LEU:HB3	1:O:221:LEU:HD23	1.76	0.68
2:P:2:LYS:O	2:P:90:ASP:N	2.24	0.68
2:P:190:HIS:HB3	2:P:196:ALA:HB2	1.74	0.68
2:P:228:ILE:H	2:R:306:LYS:HZ2	1.41	0.68
1:Q:192:ASP:OD1	1:Q:194:ARG:N	2.25	0.68
1:Q:259:PHE:O	1:Q:263:ALA:N	2.19	0.68
2:R:141:ASP:OD1	2:R:141:ASP:N	2.24	0.68
2:R:176:HIS:O	2:R:232:VAL:N	2.19	0.68
2:B:220:ASN:O	2:B:224:LYS:NZ	2.24	0.68
1:G:31:ASN:ND2	1:G:76:ASN:O	2.26	0.68
1:G:36:GLY:O	1:G:39:SER:OG	2.11	0.68
2:H:220:ASN:O	2:H:224:LYS:NZ	2.23	0.68
2:J:183:ARG:NE	2:J:188:SER:O	2.26	0.68
1:K:127:THR:OG1	1:K:146:ASN:OD1	2.12	0.68
1:K:157:PHE:O	1:K:161:LEU:N	2.26	0.68
1:O:287:ASP:N	1:O:287:ASP:OD1	2.23	0.68
2:P:173:THR:OG1	2:R:306:LYS:NZ	2.25	0.68
2:P:240:VAL:N	2:P:309:ALA:O	2.25	0.68
2:P:306:LYS:HZ2	2:R:228:ILE:H	1.42	0.68
1:Q:1:LEU:N	1:Q:24:PRO:O	2.26	0.68
1:Q:80:LEU:H	1:Q:107:LYS:HZ2	1.40	0.68
1:Q:82:LEU:HD13	1:Q:84:TRP:CZ2	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:192:ASP:HB3	2:R:195:ARG:HB2	1.76	0.68
1:C:36:GLY:O	1:C:39:SER:OG	2.10	0.68
2:D:317:TYR:O	2:D:321:VAL:N	2.19	0.68
1:E:157:PHE:O	1:E:161:LEU:N	2.25	0.68
1:E:163:GLU:HG2	1:E:164:GLU:HG3	1.74	0.68
1:E:241:ASP:HA	1:E:308:VAL:HA	1.76	0.68
2:F:190:HIS:HB3	2:F:196:ALA:HB2	1.76	0.68
2:F:220:ASN:O	2:F:224:LYS:NZ	2.26	0.68
2:F:306:LYS:NZ	2:H:172:MET:O	2.27	0.68
1:G:105:ALA:O	1:G:109:ILE:N	2.21	0.68
2:J:117:LEU:HG	2:J:145:SER:HA	1.75	0.68
1:K:183:ARG:NH2	1:K:188:SER:OG	2.27	0.68
1:O:303:ASP:OD2	1:Q:245:ASN:ND2	2.27	0.68
1:Q:361:TYR:O	1:I:195:ARG:NH2	2.26	0.68
2:B:186:ASP:OD2	2:B:197:ARG:NE	2.22	0.68
2:D:94:GLU:OE2	2:D:96:THR:OG1	2.12	0.68
2:F:54:ASP:OD1	2:F:54:ASP:N	2.21	0.68
2:H:20:ARG:HA	2:H:21:LYS:HZ1	1.57	0.68
2:H:250:THR:H	2:H:302:ASP:HB3	1.58	0.68
2:H:256:ASN:HB3	2:H:294:SER:HB2	1.74	0.68
1:K:8:PHE:CZ	1:K:13:ARG:HB3	2.29	0.68
2:P:8:PHE:H	2:P:32:ASP:HB2	1.59	0.68
2:P:77:ARG:HB3	3:P:401:NAD:H62A	1.58	0.68
2:P:220:ASN:O	2:P:224:LYS:NZ	2.27	0.68
2:R:1:LEU:N	2:R:26:ASP:H	1.92	0.68
1:C:261:LYS:O	1:C:261:LYS:NZ	2.22	0.68
1:E:192:ASP:OD2	1:E:195:ARG:N	2.22	0.68
1:K:167:ILE:O	1:K:224:LYS:NZ	2.23	0.68
2:P:251:PHE:HA	2:P:299:VAL:HG21	1.75	0.68
2:R:104:GLY:O	2:R:108:HIS:N	2.27	0.68
1:A:12:GLY:HA2	1:A:15:PHE:HB3	1.76	0.68
1:A:315:TRP:O	1:A:318:SER:OG	2.11	0.68
2:B:38:LYS:HZ3	2:B:39:GLN:HG3	1.59	0.68
1:C:50:LEU:HA	1:C:284:ARG:HH22	1.58	0.68
2:D:224:LYS:HZ3	2:D:225:LEU:HB2	1.59	0.68
1:E:18(B):HIS:HA	1:E:69:LYS:NZ	2.09	0.68
2:F:15:PHE:HE2	2:F:321:VAL:HB	1.59	0.68
2:F:251:PHE:HA	2:F:299:VAL:HG21	1.76	0.68
1:G:312:ASP:HB3	1:G:316:GLY:H	1.58	0.68
2:J:46:TYR:HA	2:J:52:THR:HA	1.74	0.68
2:L:90:ASP:O	2:L:115:LYS:N	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:103:ASP:O	2:L:107:LYS:N	2.25	0.68
1:O:139:HIS:HA	1:O:332:TRP:NE1	2.10	0.67
1:E:179:THR:O	1:E:182:GLN:NE2	2.25	0.67
1:G:157:PHE:O	1:G:161:LEU:N	2.24	0.67
1:G:193:LEU:HA	1:G:196:ALA:HB3	1.75	0.67
2:H:127:THR:OG1	2:H:133:ASN:ND2	2.25	0.67
2:H:145:SER:OG	2:H:146:ASN:N	2.27	0.67
1:I:135:LYS:NZ	1:I:136:ASP:OD1	2.23	0.67
1:I:222:LYS:O	1:I:224:LYS:NZ	2.27	0.67
1:K:148:SER:O	1:K:151:THR:OG1	2.09	0.67
2:L:94:GLU:OE2	2:L:96:THR:OG1	2.12	0.67
2:D:17:ARG:NH2	2:D:54:ASP:OD1	2.27	0.67
2:D:203:ILE:HD11	2:D:230:LEU:HB3	1.76	0.67
1:G:135:LYS:NZ	1:G:136:ASP:OD1	2.27	0.67
1:I:20:ARG:HE	1:I:322:VAL:HG11	1.58	0.67
2:J:170:GLY:HA3	2:J:225:LEU:HD13	1.74	0.67
2:P:209:GLY:O	2:P:213:ALA:N	2.20	0.67
2:R:8:PHE:CZ	2:R:13:ARG:HG3	2.29	0.67
2:B:192:ASP:O	2:B:196:ALA:N	2.27	0.67
2:B:204:VAL:HB	2:B:231:ARG:HB2	1.75	0.67
2:D:203:ILE:HG13	2:D:232:VAL:HG12	1.76	0.67
2:F:45:LYS:HD3	2:F:57:VAL:HB	1.77	0.67
1:I:103:PRO:O	1:I:107:LYS:N	2.23	0.67
1:I:118:ILE:O	1:I:146:ASN:N	2.27	0.67
1:I:259:PHE:O	1:I:263:ALA:N	2.19	0.67
2:J:77:ARG:HB3	3:J:401:NAD:H62A	1.58	0.67
2:L:168:ILE:HB	2:L:245:GLN:HG2	1.76	0.67
1:O:183:ARG:HG2	1:O:187:ALA:HB3	1.75	0.67
1:Q:46:TYR:HA	1:Q:52:THR:HA	1.77	0.67
1:Q:317:TYR:O	1:Q:321:VAL:N	2.20	0.67
2:R:110:GLN:OE1	2:R:111:ALA:N	2.27	0.67
2:B:139:HIS:CD2	2:B:334:UNK:H	2.13	0.67
2:B:162:ASP:OD1	2:B:167:ILE:N	2.25	0.67
1:C:16:LEU:HA	1:C:18(A):TRP:HD1	1.59	0.67
2:D:168:ILE:HB	2:D:245:GLN:HG2	1.76	0.67
2:F:306:LYS:NZ	2:H:173:THR:OG1	2.27	0.67
1:I:148:SER:O	1:I:151:THR:OG1	2.07	0.67
1:I:158:VAL:O	1:I:162:ASP:N	2.28	0.67
1:O:259:PHE:HB3	1:O:273:VAL:HG11	1.77	0.67
1:Q:139:HIS:ND1	1:Q:331:LYS:O	2.27	0.67
1:Q:209:GLY:O	1:Q:213:ALA:N	2.19	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:186:ASP:HB3	2:R:197:ARG:HD2	1.75	0.67
2:R:293:ASP:OD1	2:R:295:SER:OG	2.10	0.67
1:A:171:THR:HG23	1:A:243:VAL:HB	1.75	0.67
1:E:33:SER:HA	1:E:75:SER:CB	2.24	0.67
1:E:193:LEU:O	1:E:197:ARG:N	2.28	0.67
1:E:236:ASN:ND2	1:E:313:ASN:OD1	2.27	0.67
1:I:317:TYR:O	1:I:321:VAL:N	2.24	0.67
1:O:280:SER:OG	1:Q:203:ILE:N	2.27	0.67
2:P:306:LYS:NZ	2:R:173:THR:OG1	2.27	0.67
1:Q:17:ARG:HH12	1:Q:50:LEU:HD22	1.59	0.67
2:R:6:ASN:OD1	2:R:31:ASN:ND2	2.27	0.67
2:R:249:LYS:NZ	2:R:301:GLY:O	2.28	0.67
1:A:115:LYS:HA	1:A:142:ASN:HB3	1.76	0.67
1:A:293:ASP:OD2	1:A:296:LEU:N	2.28	0.67
2:B:47:ASP:OD1	2:B:48:SER:N	2.27	0.67
2:H:183:ARG:NE	2:H:188:SER:O	2.24	0.67
2:J:5:ILE:HB	2:J:30:ILE:HG23	1.76	0.67
1:K:78:ASP:OD2	1:K:81:LYS:N	2.17	0.67
1:O:7:GLY:N	1:O:31:ASN:HB3	2.10	0.67
1:O:186:ASP:O	2:R:10:ARG:NH1	2.28	0.67
1:Q:107:LYS:O	1:Q:111:ALA:N	2.27	0.67
2:R:236:ASN:OD1	2:R:284:ARG:NH1	2.28	0.67
1:A:45:LYS:NZ	1:A:55:ALA:O	2.26	0.67
1:A:147:ALA:O	1:A:152:ASN:ND2	2.22	0.67
2:B:253:GLU:O	2:B:257:ALA:N	2.23	0.67
1:E:134:GLU:H	1:E:134:GLU:CD	1.97	0.67
1:E:153:CYS:HA	1:E:289:SER:HB3	1.76	0.67
2:F:174:THR:HG1	2:F:311:TYR:HH	1.34	0.67
2:F:214:VAL:O	2:F:218:LEU:N	2.25	0.67
1:G:177:SER:OG	1:G:237:VAL:N	2.23	0.67
1:I:101:ASP:HB3	1:I:122(A):LYS:HD2	1.75	0.67
2:J:260:ARG:NH2	2:J:294:SER:OG	2.28	0.67
1:K:148:SER:OG	1:K:150:THR:OG1	2.12	0.67
2:L:165:PHE:O	2:L:247:SER:OG	2.13	0.67
2:P:102:ARG:NH2	2:P:124:ASP:O	2.27	0.67
1:Q:78:ASP:OD1	1:Q:107:LYS:NZ	2.28	0.67
1:A:39:SER:O	1:A:43:LEU:N	2.20	0.67
1:A:191:ARG:NH2	1:G:360:LEU:H	1.93	0.67
1:A:195:ARG:HH22	1:G:361:TYR:HA	1.59	0.67
2:B:172:MET:O	2:D:306:LYS:NZ	2.27	0.67
2:B:260:ARG:NH2	2:B:294:SER:OG	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:34:GLY:O	1:C:39:SER:OG	2.10	0.67
1:K:348:PHE:O	1:K:352:ASN:N	2.27	0.67
2:P:194:ARG:NH1	2:R:278:LEU:O	2.27	0.67
2:P:252:ALA:O	2:P:256:ASN:N	2.24	0.67
1:Q:3:VAL:HG13	1:Q:93:ILE:HG13	1.77	0.67
2:D:165:PHE:O	2:D:247:SER:OG	2.12	0.67
1:G:57:VAL:HA	1:G:66:ILE:HA	1.76	0.67
2:H:82:LEU:HB2	2:H:84:TRP:NE1	2.10	0.67
2:J:139:HIS:CD2	2:J:334:UNK:H	2.12	0.67
1:O:240:VAL:HG22	1:O:309:ALA:HB3	1.75	0.67
1:O:253:GLU:O	1:O:256:ASN:ND2	2.28	0.67
1:E:37:VAL:CG1	1:E:59:ILE:CG2	2.72	0.67
1:E:246:ILE:HB	1:E:305:VAL:HG12	1.76	0.67
2:F:10:ARG:HH12	1:G:185:LEU:CG	2.07	0.67
2:H:215:ALA:HB1	2:H:222:LYS:HD3	1.76	0.67
2:J:176:HIS:ND1	2:J:177:SER:O	2.28	0.67
2:B:59:THR:HA	2:B:64:ILE:HG23	1.75	0.66
2:D:249:LYS:HD2	2:D:302:ASP:HB2	1.76	0.66
1:E:8:PHE:HZ	1:E:44:LEU:CD1	2.09	0.66
1:E:318:SER:O	1:E:322:VAL:N	2.23	0.66
1:I:255:VAL:O	1:I:259:PHE:N	2.25	0.66
1:I:287:ASP:OD1	1:I:315:TRP:NE1	2.26	0.66
2:J:162:ASP:OD1	2:J:167:ILE:N	2.25	0.66
1:O:240:VAL:N	1:O:309:ALA:O	2.25	0.66
1:Q:172:MET:HG3	1:Q:225:LEU:HD11	1.77	0.66
1:E:45:LYS:HD3	1:E:57:VAL:HB	1.76	0.66
1:E:151:THR:HG22	1:E:214:VAL:HG13	1.77	0.66
1:E:327:LEU:HD23	1:E:330:ASN:HD22	1.60	0.66
2:F:118:ILE:HG22	2:F:120:ALA:H	1.59	0.66
2:H:176:HIS:O	2:H:232:VAL:N	2.21	0.66
2:J:172:MET:O	2:L:306:LYS:NZ	2.28	0.66
2:J:199:ALA:HA	2:J:202:ASN:HB2	1.78	0.66
1:K:176:HIS:O	1:K:232:VAL:N	2.26	0.66
1:O:33:SER:HB2	1:O:77:ARG:NH1	2.10	0.66
2:P:174:THR:OG1	2:P:311:TYR:OH	2.12	0.66
2:P:250:THR:OG1	2:P:251:PHE:N	2.29	0.66
1:Q:125:ILE:HG23	1:Q:143:ILE:HG22	1.76	0.66
1:Q:315:TRP:O	1:Q:318:SER:OG	2.12	0.66
1:A:151:THR:HG22	1:A:210:ALA:HA	1.76	0.66
2:B:72:LYS:NZ	2:B:87:MET:SD	2.63	0.66
1:C:49:ILE:O	1:C:284:ARG:NH1	2.27	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:162:ASP:OD1	1:C:167:ILE:N	2.20	0.66
1:G:118:ILE:HG22	1:G:120:ALA:H	1.59	0.66
1:G:240:VAL:O	1:G:309:ALA:N	2.28	0.66
2:H:287:ASP:O	2:H:320:ARG:NH2	2.29	0.66
1:I:139:HIS:CD2	1:I:332:TRP:HA	2.30	0.66
1:I:155:ALA:O	1:I:159:LYS:N	2.26	0.66
2:J:2:LYS:O	2:J:90:ASP:N	2.25	0.66
1:K:134:GLU:HB2	1:K:135:LYS:HZ3	1.60	0.66
1:O:179:THR:OG1	1:O:182:GLN:NE2	2.28	0.66
1:Q:112:GLY:O	1:Q:114:LYS:NZ	2.27	0.66
2:R:8:PHE:H	2:R:32:ASP:HB2	1.61	0.66
1:A:162:ASP:OD1	1:A:167:ILE:N	2.29	0.66
1:E:173:THR:OG1	1:E:228:ILE:O	2.11	0.66
2:F:179:THR:N	2:F:182:GLN:OE1	2.24	0.66
2:H:249:LYS:NZ	2:H:301:GLY:O	2.29	0.66
1:I:184:LEU:HB3	2:L:184:LEU:HB2	1.78	0.66
1:K:198:ALA:HB1	1:K:201:LEU:HD23	1.76	0.66
1:K:297:THR:HG22	1:K:308:VAL:H	1.60	0.66
2:L:137:TYR:O	2:L:331:LYS:NZ	2.22	0.66
1:C:275:ASP:N	1:C:275:ASP:OD1	2.27	0.66
2:F:256:ASN:O	2:F:260:ARG:N	2.27	0.66
1:G:3:VAL:HG13	1:G:91:ILE:HG13	1.77	0.66
1:I:183:ARG:CB	1:I:188:SER:HB2	2.24	0.66
1:K:157:PHE:HA	1:K:160:VAL:HB	1.77	0.66
2:L:0:LYS:O	2:L:2:LYS:NZ	2.29	0.66
2:L:183:ARG:HH22	2:L:191:ARG:HH22	1.42	0.66
2:R:190:HIS:HB3	2:R:196:ALA:HB2	1.78	0.66
2:R:209:GLY:O	2:R:213:ALA:N	2.18	0.66
1:A:126:PRO:O	1:A:145:SER:OG	2.12	0.66
2:D:8:PHE:H	2:D:32:ASP:HB2	1.60	0.66
1:E:182:GLN:OE1	1:E:182:GLN:N	2.27	0.66
1:E:273:VAL:HA	1:E:292:ILE:H	1.59	0.66
2:F:281:ILE:HG22	2:H:202:ASN:ND2	2.08	0.66
1:G:238:SER:OG	1:G:313:ASN:ND2	2.29	0.66
2:H:134:GLU:OE1	2:H:134:GLU:N	2.28	0.66
2:J:154:LEU:HD21	2:J:210:ALA:HB1	1.78	0.66
1:K:320:ARG:O	1:K:324:LEU:N	2.25	0.66
1:O:356:GLU:O	1:C:183:ARG:NH2	2.28	0.66
1:Q:44:LEU:HG	1:Q:57:VAL:HG21	1.77	0.66
2:R:20:ARG:NH2	2:R:323:ASP:OD1	2.28	0.66
2:R:82:LEU:HB2	2:R:84:TRP:NE1	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:287:ASP:O	2:R:320:ARG:NH2	2.29	0.66
1:C:92:VAL:HB	1:C:116:VAL:HG13	1.77	0.66
2:D:36:GLY:O	2:D:40:ALA:N	2.19	0.66
2:D:102:ARG:NH2	2:D:143:ILE:O	2.29	0.66
2:D:290:SER:OG	2:D:291:THR:N	2.29	0.66
2:H:168:ILE:HD12	2:H:245:GLN:HG2	1.78	0.66
1:K:0:LYS:HZ3	1:K:1:LEU:HD13	1.60	0.66
1:K:193:LEU:H	1:K:193:LEU:HD12	1.60	0.66
2:L:174:THR:OG1	2:L:311:TYR:OH	2.10	0.66
1:O:272:ASP:N	1:O:290:SER:O	2.25	0.66
1:Q:11:ILE:H	3:Q:401:NAD:PN	2.17	0.66
2:B:148:SER:OG	2:B:150:THR:OG1	2.07	0.66
1:G:128:TYR:O	1:G:146:ASN:ND2	2.26	0.66
1:I:328:VAL:HA	1:I:331:LYS:HD3	1.77	0.66
2:J:224:LYS:HG3	2:J:225:LEU:HD23	1.78	0.66
2:P:176:HIS:O	2:P:232:VAL:N	2.16	0.66
2:R:134:GLU:OE1	2:R:134:GLU:N	2.28	0.66
2:B:154:LEU:HD21	2:B:210:ALA:HB1	1.78	0.66
2:B:164:LYS:O	2:B:248:LYS:NZ	2.22	0.66
2:D:183:ARG:HH22	2:D:191:ARG:HH22	1.44	0.66
2:D:238:SER:O	2:D:311:TYR:N	2.27	0.66
2:H:173:THR:O	2:H:241:ASP:N	2.29	0.66
2:J:9:GLY:O	2:J:12:GLY:N	2.25	0.66
1:K:176:HIS:N	1:K:230:LEU:O	2.28	0.66
1:O:18(A):TRP:HE1	1:O:25:LEU:HB2	1.60	0.66
1:O:341:SER:O	1:C:191:ARG:NH1	2.29	0.66
2:P:282:ASP:N	2:P:282:ASP:OD1	2.26	0.66
2:R:2:LYS:HE3	2:R:87:MET:HB3	1.78	0.66
1:A:46:TYR:O	2:D:197:ARG:NH1	2.29	0.66
2:B:270:ILE:O	2:B:289:SER:OG	2.11	0.66
2:D:148:SER:O	2:D:152:ASN:N	2.22	0.66
1:E:172:MET:SD	1:E:173:THR:N	2.69	0.66
1:E:347:ASP:O	1:E:351:ASP:N	2.28	0.66
2:F:66:VAL:N	2:F:69:LYS:O	2.24	0.66
1:G:28:VAL:O	1:G:72:LYS:N	2.26	0.66
2:L:59:THR:HA	2:L:64:ILE:HG23	1.78	0.66
2:L:102:ARG:NH2	2:L:143:ILE:O	2.29	0.66
1:O:6:ASN:HD22	1:O:94:GLU:HA	1.59	0.65
1:O:257:ASN:HA	1:O:260:ARG:HD2	1.76	0.65
2:P:300:MET:HB2	2:P:304:MET:HB3	1.77	0.65
1:Q:240:VAL:HG12	1:Q:309:ALA:HB3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:90:ASP:O	2:B:115:LYS:N	2.15	0.65
2:D:90:ASP:O	2:D:115:LYS:N	2.25	0.65
1:I:188:SER:CB	1:I:196:ALA:HA	2.23	0.65
2:J:139:HIS:NE2	2:J:334:UNK:O	2.27	0.65
1:Q:213:ALA:O	1:Q:217:VAL:N	2.28	0.65
2:B:287:ASP:O	2:B:320:ARG:NH2	2.28	0.65
1:C:142:ASN:HD22	1:C:143:ILE:H	1.44	0.65
2:D:18(B):HIS:NE2	2:D:67:ASP:OD2	2.27	0.65
1:E:174:THR:O	1:E:230:LEU:N	2.26	0.65
2:F:282:ASP:N	2:F:282:ASP:OD1	2.25	0.65
1:G:62:GLU:O	1:G:73:VAL:N	2.28	0.65
1:G:176:HIS:O	1:G:232:VAL:N	2.29	0.65
2:H:1:LEU:N	2:H:26:ASP:H	1.94	0.65
1:I:6:ASN:HA	1:I:31:ASN:HB3	1.78	0.65
1:I:90:ASP:HA	1:I:114:LYS:HB2	1.78	0.65
1:O:33:SER:HB2	1:O:77:ARG:HH11	1.62	0.65
1:O:190:HIS:CE1	1:O:196:ALA:H	2.14	0.65
1:O:221:LEU:HA	1:O:224:LYS:HD3	1.78	0.65
2:P:253:GLU:OE2	2:P:260:ARG:NH1	2.22	0.65
1:Q:326:ASP:O	1:Q:330:ASN:ND2	2.29	0.65
2:D:6:ASN:O	2:D:95:GLY:N	2.29	0.65
2:D:179:THR:OG1	2:D:182:GLN:NE2	2.26	0.65
1:E:90:ASP:HB3	1:E:114:LYS:HB2	1.78	0.65
1:G:181:ASP:OD1	1:G:182:GLN:N	2.29	0.65
1:G:242:LEU:N	1:G:307:VAL:O	2.29	0.65
2:H:64:ILE:N	2:H:71:ILE:O	2.29	0.65
2:H:222:LYS:H	2:H:224:LYS:HZ3	1.45	0.65
1:K:9:GLY:O	1:K:13:ARG:NH2	2.28	0.65
1:K:105:ALA:O	1:K:109:ILE:N	2.21	0.65
2:L:18(B):HIS:NE2	2:L:67:ASP:OD2	2.28	0.65
1:O:231:ARG:NH2	1:C:361:TYR:O	2.28	0.65
1:O:272:ASP:HB3	1:O:291:THR:HG22	1.78	0.65
2:P:190:HIS:CE1	2:P:192:ASP:H	2.15	0.65
1:A:37:VAL:O	1:A:41:THR:N	2.23	0.65
1:A:213:ALA:HA	1:A:216:LEU:HD23	1.78	0.65
1:C:151:THR:HA	1:C:154:LEU:HB2	1.78	0.65
1:C:194:ARG:HD2	1:C:205:PRO:HD2	1.78	0.65
2:F:190:HIS:CE1	2:F:192:ASP:H	2.15	0.65
2:H:167:ILE:HA	2:H:246:VAL:HA	1.79	0.65
1:I:179:THR:OG1	1:I:182:GLN:OE1	2.12	0.65
1:Q:11:ILE:HA	1:Q:14:ASN:HD21	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:162:ASP:OD2	1:Q:162:ASP:N	2.30	0.65
2:R:103:ASP:OD1	2:R:103:ASP:N	2.28	0.65
1:C:57:VAL:HG22	1:C:66:ILE:HA	1.78	0.65
2:D:107:LYS:O	2:D:111:ALA:N	2.30	0.65
2:F:9:GLY:O	2:F:13:ARG:NH1	2.28	0.65
1:I:176:HIS:HB3	1:I:231:ARG:HG2	1.79	0.65
1:I:257:ASN:HA	1:I:260:ARG:HD2	1.77	0.65
2:J:72:LYS:NZ	2:J:87:MET:SD	2.63	0.65
1:K:106:GLY:O	1:K:110:GLN:N	2.24	0.65
1:K:274:CYS:SG	1:K:275:ASP:N	2.70	0.65
1:O:8:PHE:O	1:O:13:ARG:NH1	2.30	0.65
1:O:138:GLY:O	1:O:332:TRP:NE1	2.28	0.65
1:O:173:THR:OG1	1:O:174:THR:N	2.29	0.65
1:O:211:ALA:HB3	1:O:212:LYS:HZ1	1.61	0.65
1:A:5:ILE:HG12	1:A:93:ILE:HB	1.79	0.65
1:A:14:ASN:O	1:A:18:CYS:N	2.27	0.65
1:A:155:ALA:O	1:A:159:LYS:N	2.19	0.65
2:B:49:ILE:HG23	2:B:284:ARG:HH11	1.60	0.65
2:B:281:ILE:HG22	2:D:202:ASN:HD21	1.62	0.65
1:C:249:GLY:HA2	1:C:302:GLY:C	2.16	0.65
2:D:20:ARG:HG3	2:D:322:VAL:HG11	1.79	0.65
2:D:179:THR:N	2:D:182:GLN:OE1	2.28	0.65
2:D:220:ASN:O	2:D:224:LYS:NZ	2.25	0.65
1:E:20:ARG:HD2	1:E:322:VAL:HG13	1.78	0.65
2:F:242:LEU:O	2:F:307:VAL:N	2.27	0.65
1:G:148:SER:O	1:G:151:THR:OG1	2.10	0.65
1:I:28:VAL:HG23	1:I:29:VAL:HG23	1.77	0.65
2:J:90:ASP:O	2:J:115:LYS:N	2.15	0.65
2:P:13:ARG:O	2:P:17:ARG:N	2.22	0.65
2:P:197:ARG:NH1	1:Q:46:TYR:O	2.28	0.65
2:P:224:LYS:HG3	2:P:225:LEU:HD23	1.79	0.65
1:A:2:LYS:HA	1:A:26:ASP:HB2	1.78	0.65
2:D:250:THR:OG1	2:D:251:PHE:N	2.29	0.65
1:E:321:VAL:HA	1:E:324:LEU:HG	1.78	0.65
2:H:176:HIS:N	2:H:230:LEU:O	2.29	0.65
1:I:139:HIS:CD2	1:I:333:PRO:HD3	2.32	0.65
2:J:47:ASP:CG	2:J:49:ILE:H	2.00	0.65
2:J:64:ILE:N	2:J:71:ILE:O	2.29	0.65
2:J:220:ASN:O	2:J:224:LYS:NZ	2.25	0.65
1:K:31:ASN:O	3:K:401:NAD:H2A	1.97	0.65
1:K:261:LYS:O	1:K:265:GLY:N	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:7:GLY:HA3	2:L:96:THR:HG22	1.78	0.65
1:O:315:TRP:O	1:O:319:GLN:N	2.20	0.65
2:F:28:VAL:O	2:F:72:LYS:NZ	2.19	0.65
1:G:328:VAL:O	1:G:332:TRP:N	2.30	0.65
2:H:20:ARG:NH2	2:H:323:ASP:OD1	2.28	0.65
2:H:30:ILE:N	2:H:72:LYS:O	2.30	0.65
1:I:17:ARG:NH1	1:I:51:GLY:O	2.27	0.65
1:I:175:THR:HA	1:I:230:LEU:HB2	1.78	0.65
1:O:259:PHE:O	1:O:263:ALA:N	2.18	0.65
2:R:9:GLY:O	2:R:12:GLY:N	2.22	0.65
1:A:148:SER:O	1:A:151:THR:OG1	2.15	0.65
1:A:181:ASP:OD1	1:A:182:GLN:NE2	2.30	0.65
1:C:18:CYS:O	1:C:20:ARG:N	2.30	0.65
2:D:0:LYS:O	2:D:2:LYS:NZ	2.30	0.65
2:D:293:ASP:HB3	2:D:308:ILE:HG13	1.78	0.65
2:F:15:PHE:HD2	2:F:318:SER:HB2	1.62	0.65
2:H:9:GLY:O	2:H:12:GLY:N	2.22	0.65
2:H:325:ALA:O	2:H:329:ALA:N	2.23	0.65
1:K:48:SER:HA	2:L:281:ILE:HG12	1.78	0.65
2:L:78:ASN:HB3	2:L:81:ASN:HB2	1.78	0.65
2:L:250:THR:OG1	2:L:251:PHE:N	2.30	0.65
2:L:293:ASP:HB3	2:L:308:ILE:HG13	1.78	0.65
2:R:167:ILE:HA	2:R:246:VAL:HA	1.77	0.65
2:R:168:ILE:HD12	2:R:245:GLN:HG2	1.79	0.65
1:A:185:LEU:CD1	2:D:10:ARG:NH1	2.59	0.65
1:A:358:CYS:HA	1:G:190:HIS:CD2	2.32	0.65
2:B:242:LEU:O	2:B:307:VAL:N	2.30	0.65
2:D:28:VAL:HG13	2:D:70:VAL:O	1.97	0.65
1:E:259:PHE:HB3	1:E:273:VAL:HG11	1.77	0.65
2:F:224:LYS:HG3	2:F:225:LEU:HD23	1.79	0.65
1:G:78:ASP:OD2	1:G:81:LYS:N	2.30	0.65
2:H:192:ASP:O	2:H:196:ALA:N	2.24	0.65
2:H:242:LEU:O	2:H:307:VAL:N	2.29	0.65
1:I:26:ASP:N	1:I:26:ASP:OD1	2.29	0.65
1:I:187:ALA:HA	2:L:43:LEU:HD11	1.79	0.65
2:J:176:HIS:HB3	2:J:231:ARG:HA	1.78	0.65
1:K:107:LYS:HA	1:K:110:GLN:HE21	1.61	0.65
2:L:28:VAL:HG13	2:L:70:VAL:O	1.96	0.65
1:O:57:VAL:HA	1:O:64:PHE:HE2	1.62	0.64
1:Q:298:MET:O	1:Q:306:LYS:N	2.28	0.64
2:R:215:ALA:HB1	2:R:222:LYS:HD3	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:132:VAL:O	1:A:135:LYS:NZ	2.26	0.64
1:E:4:ALA:HA	1:E:27:VAL:HG13	1.79	0.64
2:F:10:ARG:NH1	1:G:185:LEU:HB2	2.12	0.64
2:H:2:LYS:N	2:H:90:ASP:OD2	2.30	0.64
2:H:129:VAL:N	2:H:133:ASN:OD1	2.30	0.64
1:I:29:VAL:HG21	1:I:87:LEU:HD22	1.79	0.64
1:K:2:LYS:N	1:K:90:ASP:OD2	2.30	0.64
2:L:217:VAL:HG23	2:L:218:LEU:HG	1.79	0.64
1:O:306:LYS:NZ	1:Q:173:THR:OG1	2.30	0.64
2:P:280:SER:OG	2:R:202:ASN:ND2	2.29	0.64
1:Q:160:VAL:HG13	1:Q:164:GLU:HG3	1.78	0.64
1:Q:215:SER:O	1:Q:222:LYS:NZ	2.30	0.64
1:A:22:ASP:N	1:A:22:ASP:OD1	2.30	0.64
2:B:179:THR:OG1	2:B:231:ARG:NH1	2.30	0.64
2:B:224:LYS:HG3	2:B:225:LEU:HD23	1.78	0.64
1:C:170:GLY:HA3	1:C:244:VAL:HG12	1.78	0.64
1:G:319:GLN:OE1	1:G:320:ARG:NH2	2.30	0.64
2:L:177:SER:HA	2:L:234:THR:HG23	1.79	0.64
1:O:130:VAL:HA	1:O:134:GLU:HB3	1.78	0.64
1:O:148:SER:O	1:O:152:ASN:N	2.19	0.64
1:O:240:VAL:O	1:O:309:ALA:N	2.31	0.64
2:P:31:ASN:ND2	2:P:76:ASP:O	2.25	0.64
2:P:239:VAL:HA	2:P:310:TRP:HA	1.78	0.64
2:B:47:ASP:CG	2:B:49:ILE:H	2.00	0.64
1:C:90:ASP:OD1	1:C:91:ILE:N	2.30	0.64
2:D:217:VAL:HG23	2:D:218:LEU:HG	1.78	0.64
2:F:169:LYS:O	2:F:245:GLN:N	2.30	0.64
2:H:181:ASP:HB3	2:H:182:GLN:HE21	1.62	0.64
1:I:106:GLY:O	1:I:110:GLN:N	2.20	0.64
1:I:214:VAL:HG21	1:I:225:LEU:HD23	1.79	0.64
2:J:63:ALA:HB1	2:J:70:VAL:HG23	1.79	0.64
1:O:78:ASP:OD2	1:O:81:LYS:N	2.26	0.64
1:O:129:VAL:HG13	1:O:132:VAL:HB	1.79	0.64
1:O:300:MET:HB2	1:Q:169:LYS:HD2	1.78	0.64
2:P:19:GLY:O	2:P:21:LYS:NZ	2.31	0.64
2:P:242:LEU:HB3	2:P:307:VAL:HG22	1.80	0.64
1:A:281:VAL:N	1:C:202:ASN:OD1	2.30	0.64
3:C:401:NAD:O1N	3:C:401:NAD:N7N	2.23	0.64
2:D:183:ARG:NE	2:D:188:SER:O	2.30	0.64
2:D:240:VAL:N	2:D:309:ALA:O	2.21	0.64
1:E:255:VAL:O	1:E:259:PHE:N	2.25	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:174:THR:O	1:G:230:LEU:N	2.31	0.64
2:H:2:LYS:HE3	2:H:87:MET:HB3	1.78	0.64
2:J:174:THR:HG1	2:J:311:TYR:HH	1.34	0.64
2:J:287:ASP:O	2:J:320:ARG:NH2	2.28	0.64
2:P:250:THR:H	2:P:302:ASP:HB3	1.63	0.64
2:P:297:THR:HG22	2:P:308:ILE:H	1.63	0.64
2:R:2:LYS:N	2:R:90:ASP:OD2	2.30	0.64
2:R:20:ARG:HA	2:R:21:LYS:HZ1	1.62	0.64
2:R:148:SER:HG	2:R:151:THR:H	1.45	0.64
2:R:173:THR:O	2:R:241:ASP:N	2.29	0.64
2:R:203:ILE:HG13	2:R:232:VAL:HG12	1.79	0.64
2:B:65:SER:HA	2:B:70:VAL:HA	1.78	0.64
1:C:297:THR:HA	1:C:306:LYS:HZ1	1.62	0.64
1:E:2:LYS:HB3	1:E:89:ILE:HD13	1.79	0.64
1:E:89:ILE:O	1:E:114:LYS:NZ	2.31	0.64
2:H:192:ASP:HB3	2:H:195:ARG:HB2	1.79	0.64
2:J:134:GLU:OE1	2:J:134:GLU:N	2.31	0.64
1:K:91:ILE:HG23	1:K:116:VAL:HA	1.80	0.64
1:K:137:TYR:CE2	1:K:331:LYS:HB3	2.29	0.64
1:A:182:GLN:HE21	1:A:231:ARG:HD3	1.61	0.64
2:B:159:LYS:O	2:B:163:GLN:N	2.23	0.64
1:E:148:SER:O	1:E:152:ASN:N	2.26	0.64
1:E:190:HIS:CE1	1:E:191:ARG:HG2	2.33	0.64
2:F:270:ILE:O	2:F:289:SER:N	2.26	0.64
2:H:10:ARG:NH2	2:H:179:THR:HB	2.12	0.64
2:H:240:VAL:N	2:H:309:ALA:O	2.25	0.64
1:I:185:LEU:HD13	2:L:10:ARG:NH1	2.11	0.64
2:P:3:VAL:HG22	2:P:91:LEU:HB3	1.80	0.64
1:Q:255:VAL:O	1:Q:259:PHE:N	2.28	0.64
1:A:195:ARG:HH22	1:G:361:TYR:CA	2.11	0.64
2:D:118:ILE:HG22	2:D:120:ALA:H	1.63	0.64
2:D:139:HIS:CE1	2:D:332:TRP:HA	2.33	0.64
2:D:253:GLU:OE2	2:D:260:ARG:NH1	2.31	0.64
1:E:78:ASP:OD2	1:E:81:LYS:NZ	2.26	0.64
2:F:239:VAL:HA	2:F:310:TRP:HA	1.80	0.64
2:H:6:ASN:HA	2:H:31:ASN:HB3	1.79	0.64
1:I:84:TRP:HA	1:I:87:LEU:HB2	1.80	0.64
1:I:185:LEU:HD13	2:L:10:ARG:CZ	2.28	0.64
2:J:203:ILE:HG23	2:J:205:PRO:HD3	1.80	0.64
1:O:85:ALA:HB2	1:O:112:GLY:HA3	1.80	0.64
1:O:132:VAL:N	1:O:134:GLU:OE1	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:0:LYS:N	2:B:26:ASP:OD1	2.29	0.64
2:B:149:CYS:O	2:B:153:CYS:N	2.23	0.64
1:C:6:ASN:ND2	1:C:96:THR:HG23	2.06	0.64
1:C:163:GLU:OE1	1:C:163:GLU:N	2.30	0.64
1:G:253:GLU:OE1	1:G:253:GLU:N	2.25	0.64
1:K:127:THR:HG1	1:K:146:ASN:HA	1.63	0.64
2:L:162:ASP:O	2:L:166:GLY:N	2.31	0.64
1:O:18(B):HIS:CD2	1:O:19:GLY:N	2.65	0.64
2:P:169:LYS:O	2:P:245:GLN:N	2.31	0.64
2:R:129:VAL:N	2:R:133:ASN:OD1	2.30	0.64
2:R:211:ALA:O	2:R:226:ASN:ND2	2.31	0.64
1:A:82:LEU:HD22	1:A:84:TRP:CD2	2.32	0.64
2:B:102:ARG:HH22	2:B:126:PRO:HD3	1.63	0.64
2:B:240:VAL:HG13	2:B:309:ALA:HB3	1.80	0.64
1:C:3:VAL:HG21	1:C:25:LEU:HB3	1.78	0.64
2:F:32:ASP:OD2	3:F:401:NAD:O3B	2.12	0.64
2:H:6:ASN:OD1	2:H:31:ASN:ND2	2.27	0.64
1:I:77:ARG:HH12	3:I:401:NAD:H2B	1.62	0.64
1:I:260:ARG:HA	1:I:263:ALA:HB3	1.79	0.64
1:O:82:LEU:HD12	1:O:108:HIS:CE1	2.33	0.64
1:O:245:ASN:ND2	1:Q:304:MET:SD	2.71	0.64
2:P:281:ILE:HG22	2:R:202:ASN:ND2	2.13	0.64
1:Q:47:ASP:OD1	1:Q:50:LEU:N	2.20	0.64
2:D:17:ARG:HD3	2:D:50:LEU:HD12	1.78	0.64
2:D:137:TYR:OH	2:D:139:HIS:ND1	2.29	0.64
1:E:106:GLY:O	1:E:110:GLN:N	2.22	0.64
2:F:176:HIS:HB3	2:F:231:ARG:HA	1.80	0.64
2:F:190:HIS:CE1	2:F:195:ARG:HB2	2.33	0.64
2:F:250:THR:OG1	2:F:251:PHE:N	2.29	0.64
1:I:185:LEU:HD12	2:L:10:ARG:HH12	1.62	0.64
2:J:92:VAL:HB	2:J:116:VAL:HG22	1.80	0.64
2:L:264:ASP:O	2:L:268:LYS:NZ	2.17	0.64
2:P:176:HIS:HB3	2:P:231:ARG:HA	1.80	0.63
2:D:1:LEU:HB3	2:D:25:LEU:HD13	1.79	0.63
2:F:64:ILE:H	2:F:71:ILE:H	1.46	0.63
2:F:149:CYS:O	2:F:153:CYS:N	2.28	0.63
2:F:203:ILE:HD11	2:F:230:LEU:HB3	1.79	0.63
2:F:240:VAL:HG13	2:F:309:ALA:HB3	1.80	0.63
1:I:128:TYR:O	1:I:146:ASN:ND2	2.30	0.63
1:K:132:VAL:HG21	1:K:155:ALA:HB1	1.79	0.63
2:L:62:SER:O	2:L:73:VAL:HG12	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:19:GLY:O	1:O:21:LYS:HD3	1.98	0.63
2:P:5:ILE:HG23	2:P:93:ILE:HB	1.79	0.63
1:Q:38:LYS:HG3	1:Q:39:SER:H	1.62	0.63
1:Q:181:ASP:OD2	1:I:362:GLU:N	2.26	0.63
1:A:5:ILE:O	1:A:31:ASN:N	2.27	0.63
1:A:256:ASN:O	1:A:260:ARG:N	2.27	0.63
1:A:316:GLY:O	1:A:320:ARG:N	2.23	0.63
1:A:332:TRP:CD2	1:A:333:PRO:HD2	2.33	0.63
2:F:156:PRO:HA	2:F:159:LYS:HE3	1.79	0.63
2:H:211:ALA:O	2:H:226:ASN:ND2	2.32	0.63
1:I:67:ASP:O	1:I:69:LYS:NZ	2.32	0.63
1:I:173:THR:HG23	1:I:228:ILE:H	1.62	0.63
2:J:65:SER:HA	2:J:70:VAL:HA	1.80	0.63
1:Q:9:GLY:C	1:Q:13:ARG:HE	2.01	0.63
2:R:214:VAL:HG23	2:R:218:LEU:HD12	1.81	0.63
2:R:267:LEU:HD13	2:R:271:LEU:HB2	1.80	0.63
1:A:57:VAL:HG22	1:A:59:ILE:HG13	1.80	0.63
2:B:173:THR:OG1	2:D:306:LYS:NZ	2.25	0.63
2:B:270:ILE:HA	2:B:320:ARG:HH11	1.63	0.63
1:E:122:ALA:O	1:E:122(A):LYS:NZ	2.31	0.63
1:G:37:VAL:HG12	1:G:41:THR:HG23	1.80	0.63
2:H:148:SER:HG	2:H:151:THR:H	1.45	0.63
2:J:240:VAL:HG13	2:J:309:ALA:HB3	1.81	0.63
2:L:94:GLU:OE2	2:L:99:PHE:N	2.26	0.63
2:L:290:SER:OG	2:L:291:THR:N	2.30	0.63
1:O:18(A):TRP:C	1:O:20:ARG:HB3	2.17	0.63
1:O:192:ASP:OD1	1:O:193:LEU:N	2.31	0.63
2:R:176:HIS:N	2:R:230:LEU:O	2.28	0.63
2:R:199:ALA:HA	2:R:202:ASN:HB2	1.79	0.63
2:B:134:GLU:OE1	2:B:134:GLU:N	2.31	0.63
1:E:186:ASP:OD1	1:E:198:ALA:N	2.30	0.63
1:E:326:ASP:O	1:E:330:ASN:N	2.24	0.63
3:E:401:NAD:O1N	3:E:401:NAD:N7N	2.23	0.63
2:F:289:SER:OG	2:F:320:ARG:NH1	2.31	0.63
2:J:102:ARG:HH22	2:J:126:PRO:HD3	1.63	0.63
2:J:194:ARG:NH1	2:L:278:LEU:O	2.23	0.63
2:J:253:GLU:O	2:J:257:ALA:N	2.23	0.63
1:K:135:LYS:O	1:K:331:LYS:NZ	2.31	0.63
1:O:139:HIS:HA	1:O:332:TRP:CE2	2.34	0.63
2:P:156:PRO:HA	2:P:159:LYS:HE3	1.79	0.63
2:P:242:LEU:HD11	2:P:244:VAL:HG13	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:18:CYS:O	1:Q:20:ARG:N	2.30	0.63
1:Q:65:SER:OG	1:Q:69:LYS:N	2.30	0.63
2:R:145:SER:OG	2:R:146:ASN:N	2.27	0.63
2:R:193:LEU:O	2:R:197:ARG:N	2.32	0.63
2:R:242:LEU:O	2:R:307:VAL:N	2.29	0.63
2:B:218:LEU:HB3	2:B:221:LEU:HD13	1.80	0.63
2:F:250:THR:H	2:F:302:ASP:HB3	1.63	0.63
1:G:28:VAL:HA	1:G:71:ILE:HG12	1.79	0.63
1:G:93:ILE:HA	1:G:117:ILE:HB	1.79	0.63
2:H:204:VAL:N	2:H:231:ARG:O	2.32	0.63
2:H:267:LEU:HD13	2:H:271:LEU:HB2	1.81	0.63
1:I:194:ARG:HH11	1:I:194:ARG:HG3	1.62	0.63
2:J:270:ILE:O	2:J:289:SER:OG	2.16	0.63
2:L:64:ILE:H	2:L:71:ILE:H	1.45	0.63
2:L:107:LYS:O	2:L:111:ALA:N	2.31	0.63
1:Q:161:LEU:O	1:Q:165:LEU:N	2.28	0.63
1:Q:260:ARG:HD3	1:Q:273:VAL:HG11	1.81	0.63
2:B:6:ASN:HB3	2:B:94:GLU:HA	1.79	0.63
1:C:121:PRO:HG3	1:C:148:SER:H	1.63	0.63
2:D:7:GLY:HA3	2:D:96:THR:HG22	1.80	0.63
2:D:261:GLU:O	2:D:265:ASN:ND2	2.32	0.63
1:E:41:THR:HG1	1:E:59:ILE:HG21	1.61	0.63
2:H:117:LEU:HD21	2:H:146:ASN:HB2	1.80	0.63
2:J:218:LEU:HB3	2:J:221:LEU:HD13	1.80	0.63
2:L:118:ILE:HG22	2:L:120:ALA:H	1.63	0.63
1:O:190:HIS:NE2	1:O:192:ASP:OD2	2.32	0.63
1:O:346:GLU:HA	1:O:349:CYS:HB3	1.81	0.63
2:P:89:ILE:O	2:P:114:LYS:NZ	2.26	0.63
2:R:3:VAL:HG22	2:R:91:LEU:HB3	1.81	0.63
1:E:18(B):HIS:HA	1:E:69:LYS:HZ1	1.64	0.63
1:E:124:ASP:HB3	1:K:143:ILE:HD12	1.81	0.63
2:H:213:ALA:HA	2:H:216:LEU:HB2	1.81	0.63
1:I:173:THR:OG1	1:K:306:LYS:NZ	2.32	0.63
1:I:241:ASP:HA	1:I:308:VAL:HA	1.80	0.63
2:L:10:ARG:HB2	3:L:401:NAD:O1N	1.99	0.63
1:O:37:VAL:CG2	1:O:59:ILE:HG22	2.29	0.63
1:O:203:ILE:HG12	1:O:230:LEU:HD12	1.80	0.63
2:P:63:ALA:HA	2:P:72:LYS:HA	1.80	0.63
1:C:6:ASN:HD22	1:C:94:GLU:HG2	1.64	0.63
1:C:79:PRO:HB3	1:C:108:HIS:CE1	2.34	0.63
1:C:178:TYR:HA	1:C:231:ARG:HD2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:279:VAL:O	2:D:282:ASP:N	2.30	0.63
2:F:3:VAL:HG22	2:F:91:LEU:HB3	1.80	0.63
1:G:259:PHE:O	1:G:263:ALA:N	2.25	0.63
2:H:15:PHE:O	2:H:18(A):TRP:N	2.18	0.63
2:H:37:VAL:HG23	2:H:38:LYS:H	1.64	0.63
2:J:3:VAL:HG22	2:J:91:LEU:HB3	1.81	0.63
2:L:1:LEU:HB3	2:L:25:LEU:HD13	1.81	0.63
1:O:13:ARG:C	1:O:44:LEU:CD1	2.67	0.63
1:O:37:VAL:CG2	1:O:59:ILE:HG21	2.28	0.63
1:O:94:GLU:OE2	1:O:96:THR:OG1	2.15	0.63
2:R:149:CYS:SG	2:R:150:THR:N	2.72	0.63
1:A:92:VAL:HB	1:A:116:VAL:HG13	1.81	0.63
1:A:174:THR:HG1	1:A:238:SER:HG	1.42	0.63
1:C:170:GLY:HA3	1:C:244:VAL:HA	1.79	0.63
1:C:272:ASP:HB2	1:C:288:PHE:CG	2.34	0.63
1:E:86:GLU:OE1	1:E:86:GLU:N	2.26	0.63
1:E:94:GLU:OE2	1:E:98:VAL:N	2.32	0.63
1:G:5:ILE:HB	1:G:30:VAL:HG22	1.80	0.63
2:H:1:LEU:HD22	2:H:329:ALA:HA	1.80	0.63
2:J:126:PRO:HD2	2:J:144:ILE:HA	1.80	0.63
1:K:0:LYS:NZ	1:K:24:PRO:O	2.24	0.63
1:K:9:GLY:HA2	3:K:401:NAD:H4B	1.80	0.63
1:O:41:THR:OG1	1:O:57:VAL:HG22	1.98	0.62
1:Q:7:GLY:H	1:Q:31:ASN:HB3	1.63	0.62
2:R:203:ILE:HD11	2:R:230:LEU:HB3	1.81	0.62
1:A:18(A):TRP:HE1	1:A:23:SER:HG	1.46	0.62
2:F:300:MET:HB2	2:F:304:MET:HB3	1.79	0.62
2:H:101:ASP:OD2	2:H:104:GLY:N	2.20	0.62
1:I:18(A):TRP:HE1	1:I:23:SER:HG	1.44	0.62
1:I:47:ASP:CG	1:I:49:ILE:H	2.01	0.62
1:I:120:ALA:N	1:I:146:ASN:O	2.32	0.62
1:I:165:LEU:HD13	1:I:248:LYS:HD2	1.80	0.62
2:J:2:LYS:HB3	2:J:89:ILE:HD13	1.80	0.62
2:J:77:ARG:HD2	3:J:401:NAD:N6A	2.13	0.62
1:K:316:GLY:O	1:K:320:ARG:NE	2.32	0.62
2:L:183:ARG:NE	2:L:188:SER:O	2.32	0.62
1:O:178:TYR:CD2	1:O:233:PRO:HA	2.34	0.62
2:P:190:HIS:CE1	2:P:195:ARG:HB2	2.34	0.62
1:Q:226:ASN:OD1	1:Q:227:GLY:N	2.31	0.62
1:Q:281:VAL:HA	1:Q:284:ARG:HH21	1.64	0.62
1:A:82:LEU:HB3	1:A:84:TRP:CE2	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:14:ASN:HD21	2:F:315:TRP:HA	1.65	0.62
2:F:38:LYS:O	2:F:41:SER:OG	2.08	0.62
1:G:240:VAL:N	1:G:309:ALA:O	2.25	0.62
2:H:214:VAL:HG23	2:H:218:LEU:HD12	1.81	0.62
1:I:89:ILE:O	1:I:114:LYS:NZ	2.30	0.62
1:K:18:CYS:O	1:K:20:ARG:N	2.32	0.62
2:P:149:CYS:O	2:P:153:CYS:N	2.27	0.62
2:P:256:ASN:O	2:P:260:ARG:N	2.27	0.62
1:A:172:MET:H	1:A:227:GLY:HA3	1.64	0.62
2:B:199:ALA:HA	2:B:202:ASN:HB2	1.81	0.62
1:C:63:THR:HA	1:C:72:LYS:HA	1.82	0.62
1:C:65:SER:HA	1:C:70:PRO:HA	1.80	0.62
2:H:312:ASP:OD1	2:H:315:TRP:N	2.26	0.62
1:I:57:VAL:HG22	1:I:59:ILE:HG12	1.81	0.62
2:J:0:LYS:N	2:J:26:ASP:OD1	2.29	0.62
2:J:118:ILE:H	2:J:145:SER:HA	1.65	0.62
2:J:296:LEU:HB2	2:J:308:ILE:HD11	1.81	0.62
2:P:76:ASP:OD1	2:P:77:ARG:N	2.33	0.62
2:P:161:LEU:O	2:P:165:PHE:N	2.33	0.62
2:R:240:VAL:N	2:R:309:ALA:O	2.25	0.62
2:B:2:LYS:HB3	2:B:89:ILE:HD13	1.80	0.62
2:B:296:LEU:HB2	2:B:308:ILE:HD11	1.80	0.62
1:C:9:GLY:O	1:C:12:GLY:N	2.25	0.62
1:E:184:LEU:HB3	2:H:184:LEU:HB2	1.80	0.62
1:G:37:VAL:HG22	1:G:73:VAL:HG11	1.81	0.62
1:G:177:SER:OG	1:G:234:THR:OG1	2.16	0.62
2:P:120:ALA:O	2:P:145:SER:OG	2.16	0.62
2:R:59:THR:HB	2:R:64:ILE:HD13	1.81	0.62
2:B:116:VAL:N	2:B:142:THR:O	2.27	0.62
2:B:240:VAL:N	2:B:309:ALA:O	2.33	0.62
1:C:179:THR:OG1	1:C:181:ASP:OD1	2.12	0.62
2:D:115:LYS:NZ	2:D:139:HIS:O	2.31	0.62
2:D:149:CYS:O	2:D:153:CYS:N	2.26	0.62
1:E:11:ILE:HG12	3:E:401:NAD:C2N	2.29	0.62
2:F:12:GLY:O	2:F:16:LEU:N	2.24	0.62
2:F:76:ASP:OD1	2:F:77:ARG:N	2.31	0.62
2:F:228:ILE:H	2:H:306:LYS:HZ2	1.47	0.62
1:G:168:VAL:HG23	1:G:247:GLU:HG3	1.81	0.62
2:H:316:GLY:HA2	2:H:319:GLN:HB2	1.80	0.62
1:I:115:LYS:HG3	1:I:142:ASN:HA	1.80	0.62
2:J:116:VAL:N	2:J:142:THR:O	2.27	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:18(B):HIS:NE2	1:K:67:ASP:OD2	2.33	0.62
1:K:156:PRO:HB3	1:K:267:LEU:HD22	1.82	0.62
1:K:241:ASP:OD1	1:K:307:VAL:N	2.33	0.62
1:O:171:THR:OG1	1:O:172:MET:N	2.29	0.62
2:P:8:PHE:CZ	2:P:13:ARG:HG3	2.35	0.62
2:P:14:ASN:HD21	2:P:315:TRP:HA	1.65	0.62
2:P:218:LEU:O	2:P:222:LYS:NZ	2.30	0.62
2:P:289:SER:OG	2:P:320:ARG:NH1	2.32	0.62
1:Q:10:ARG:NH1	1:Q:47:ASP:OD2	2.26	0.62
2:R:204:VAL:N	2:R:231:ARG:O	2.30	0.62
1:A:62:GLU:O	1:A:73:VAL:N	2.33	0.62
1:A:194:ARG:HH11	1:A:205:PRO:HD2	1.64	0.62
2:B:76:ASP:HB3	2:B:82:LEU:HD21	1.81	0.62
2:B:139:HIS:NE2	2:B:334:UNK:O	2.27	0.62
1:C:47:ASP:CG	1:C:49:ILE:H	2.03	0.62
1:E:115:LYS:HE2	1:E:137:TYR:HE1	1.65	0.62
1:G:192:ASP:O	1:G:196:ALA:N	2.33	0.62
2:H:3:VAL:HG22	2:H:91:LEU:HB3	1.82	0.62
1:I:18(B):HIS:NE2	1:I:67:ASP:OD2	2.33	0.62
1:I:304:MET:SD	1:K:245:ASN:ND2	2.73	0.62
2:J:242:LEU:O	2:J:307:VAL:N	2.29	0.62
1:K:182:GLN:OE1	1:K:182:GLN:N	2.32	0.62
1:O:345:LEU:O	1:O:349:CYS:N	2.29	0.62
1:Q:37:VAL:HG22	1:Q:73:VAL:HG21	1.82	0.62
2:R:325:ALA:O	2:R:329:ALA:N	2.23	0.62
1:A:18(A):TRP:NE1	1:A:23:SER:OG	2.32	0.62
1:A:108:HIS:CD2	1:A:108:HIS:H	2.16	0.62
1:A:134:GLU:CD	1:A:134:GLU:H	2.03	0.62
1:A:205:PRO:HA	1:A:230:LEU:HA	1.82	0.62
1:C:118:ILE:O	1:C:145:SER:OG	2.18	0.62
1:G:107:LYS:O	1:G:111:ALA:N	2.31	0.62
2:H:38:LYS:N	2:H:38:LYS:HZ2	1.98	0.62
2:L:17:ARG:HD3	2:L:50:LEU:HD12	1.82	0.62
2:L:47:ASP:CG	2:L:49:ILE:H	2.03	0.62
2:L:261:GLU:O	2:L:265:ASN:ND2	2.32	0.62
2:P:183:ARG:HH22	2:P:191:ARG:HH22	1.47	0.62
2:P:293:ASP:OD1	2:P:296:LEU:N	2.26	0.62
1:Q:33:SER:OG	3:Q:401:NAD:H2A	2.00	0.62
1:Q:90:ASP:HA	1:Q:114:LYS:HE2	1.82	0.62
2:R:167:ILE:HG21	2:R:225:LEU:HD11	1.82	0.62
2:R:265:ASN:OD1	2:R:265:ASN:N	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:190:HIS:CE1	1:A:191:ARG:HH21	2.18	0.62
2:D:9:GLY:O	2:D:12:GLY:N	2.31	0.62
2:D:162:ASP:O	2:D:166:GLY:N	2.30	0.62
2:F:242:LEU:HB3	2:F:307:VAL:HG22	1.81	0.62
1:I:234:THR:HG21	1:I:237:VAL:HG12	1.81	0.62
2:J:20:ARG:NH2	2:J:319:GLN:O	2.33	0.62
1:K:260:ARG:HG2	1:K:273:VAL:HG11	1.81	0.62
2:P:9:GLY:O	2:P:12:GLY:N	2.26	0.62
2:P:177:SER:OG	2:P:234:THR:O	2.15	0.62
1:Q:135:LYS:H	1:Q:135:LYS:HE3	1.64	0.62
1:A:220:GLN:O	1:A:224:LYS:NZ	2.23	0.62
2:B:3:VAL:HG22	2:B:91:LEU:HB3	1.80	0.62
2:B:20:ARG:NH2	2:B:319:GLN:O	2.32	0.62
1:C:157:PHE:O	1:C:161:LEU:N	2.30	0.62
2:D:139:HIS:ND1	2:D:331:LYS:O	2.32	0.62
2:D:157:PHE:O	2:D:161:LEU:N	2.23	0.62
1:E:303:ASP:OD2	1:G:245:ASN:ND2	2.33	0.62
2:H:45:LYS:O	2:H:52:THR:OG1	2.18	0.62
2:H:167:ILE:HG21	2:H:225:LEU:HD11	1.82	0.62
1:I:7:GLY:HA2	1:I:32:ASP:HA	1.80	0.62
1:K:256:ASN:OD1	1:K:260:ARG:NH2	2.33	0.62
1:K:287:ASP:HA	1:K:319:GLN:HG3	1.82	0.62
1:O:90:ASP:O	1:O:115:LYS:N	2.23	0.62
1:O:121:PRO:O	1:O:122(A):LYS:NZ	2.32	0.62
3:O:401:NAD:H1D	1:C:362:GLU:C	2.20	0.62
1:Q:312:ASP:HB3	1:Q:316:GLY:H	1.65	0.62
1:A:31:ASN:OD1	1:A:76:ASN:N	2.33	0.62
1:C:150:THR:OG1	1:C:151:THR:N	2.33	0.62
2:D:297:THR:HG22	2:D:308:ILE:H	1.65	0.62
1:E:47:ASP:OD1	1:E:48:SER:N	2.33	0.62
2:F:5:ILE:HG23	2:F:93:ILE:HB	1.80	0.62
2:F:77:ARG:HD2	3:F:401:NAD:N1A	2.15	0.62
2:F:242:LEU:HD11	2:F:244:VAL:HG13	1.81	0.62
1:G:173:THR:HA	1:G:228:ILE:O	2.00	0.62
2:L:20:ARG:HG3	2:L:322:VAL:HG11	1.82	0.62
1:O:106:GLY:O	1:O:110:GLN:N	2.21	0.61
1:O:148:SER:O	1:O:151:THR:OG1	2.10	0.61
1:Q:194:ARG:HE	1:Q:204:VAL:HG13	1.64	0.61
2:R:1:LEU:HD22	2:R:329:ALA:HA	1.81	0.61
1:A:41:THR:O	1:A:45:LYS:N	2.18	0.61
1:C:186:ASP:OD2	1:C:197:ARG:NH2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:10:ARG:CB	3:D:401:NAD:O1N	2.47	0.61
1:E:59:ILE:HA	1:E:64:PHE:CA	2.28	0.61
1:I:176:HIS:N	1:I:230:LEU:O	2.33	0.61
1:K:317:TYR:O	1:K:320:ARG:NH2	2.23	0.61
2:L:139:HIS:CE1	2:L:332:TRP:HA	2.35	0.61
2:L:139:HIS:ND1	2:L:331:LYS:O	2.33	0.61
2:L:253:GLU:OE2	2:L:260:ARG:NH1	2.33	0.61
2:P:270:ILE:O	2:P:289:SER:N	2.27	0.61
1:Q:177:SER:OG	1:Q:234:THR:OG1	2.16	0.61
2:R:6:ASN:HA	2:R:31:ASN:HB3	1.82	0.61
2:R:117:LEU:HD21	2:R:146:ASN:HB2	1.80	0.61
1:A:120:ALA:N	1:A:146:ASN:O	2.33	0.61
1:A:174:THR:OG1	1:A:238:SER:OG	2.11	0.61
1:C:142:ASN:HD22	1:C:143:ILE:HD12	1.64	0.61
1:E:83:PRO:HA	1:E:86:GLU:CD	2.20	0.61
2:F:89:ILE:N	2:F:112:GLY:O	2.32	0.61
2:F:131:GLY:N	2:F:134:GLU:OE2	2.33	0.61
2:F:186:ASP:OD2	1:G:10:ARG:NH1	2.32	0.61
2:H:149:CYS:O	2:H:153:CYS:N	2.32	0.61
2:H:203:ILE:HG13	2:H:232:VAL:HG12	1.81	0.61
2:H:240:VAL:HG13	2:H:309:ALA:HB3	1.82	0.61
1:I:270:VAL:O	1:I:289:SER:N	2.33	0.61
2:J:149:CYS:O	2:J:153:CYS:N	2.23	0.61
1:K:213:ALA:HA	1:K:216:LEU:HD23	1.82	0.61
1:K:299:VAL:HG22	1:K:305:VAL:HB	1.81	0.61
1:O:47:ASP:OD2	1:O:50:LEU:N	2.22	0.61
2:P:47:ASP:CG	2:P:49:ILE:H	2.02	0.61
2:P:122:GLY:HA3	2:P:125:ILE:HG12	1.81	0.61
2:P:240:VAL:HG13	2:P:309:ALA:HB3	1.81	0.61
2:P:312:ASP:OD1	2:P:315:TRP:N	2.29	0.61
2:R:166:GLY:O	2:R:247:SER:N	2.24	0.61
2:R:192:ASP:O	2:R:196:ALA:N	2.24	0.61
2:B:9:GLY:O	2:B:12:GLY:N	2.28	0.61
1:C:167:ILE:HA	1:C:246:ILE:HD13	1.83	0.61
1:E:28:VAL:O	1:E:72:LYS:N	2.32	0.61
1:E:33:SER:HB2	1:E:77:ARG:NH1	2.14	0.61
1:G:116:VAL:CG2	1:G:143:ILE:HA	2.30	0.61
1:K:162:ASP:OD1	1:K:167:ILE:N	2.34	0.61
1:O:271:LEU:HA	1:O:288:PHE:HB3	1.83	0.61
2:P:272:SER:N	2:P:290:SER:O	2.33	0.61
2:P:273:VAL:HA	2:P:292:ILE:H	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:240:VAL:O	1:Q:309:ALA:N	2.33	0.61
1:Q:253:GLU:OE1	1:Q:253:GLU:N	2.22	0.61
2:R:213:ALA:HA	2:R:216:LEU:HB2	1.81	0.61
1:A:64:PHE:O	1:A:71:ILE:N	2.33	0.61
1:A:241:ASP:HA	1:A:308:VAL:HA	1.83	0.61
2:B:193:LEU:O	2:B:197:ARG:N	2.33	0.61
2:F:13:ARG:HH21	2:F:43:LEU:HD13	1.65	0.61
2:H:172:MET:HG3	2:H:242:LEU:HD13	1.83	0.61
1:I:184:LEU:HG	1:I:185:LEU:HG	1.83	0.61
1:K:162:ASP:HB2	1:K:167:ILE:HD12	1.82	0.61
2:L:6:ASN:O	2:L:95:GLY:N	2.31	0.61
1:O:14:ASN:O	1:O:18:CYS:N	2.34	0.61
1:O:127:THR:OG1	1:O:128:TYR:N	2.34	0.61
2:D:204:VAL:N	2:D:231:ARG:O	2.34	0.61
1:E:211:ALA:HB1	1:E:226:ASN:HA	1.82	0.61
2:F:66:VAL:HB	2:F:69:LYS:HB3	1.81	0.61
1:G:42:HIS:HA	1:G:45:LYS:HB3	1.82	0.61
1:O:18:CYS:O	1:O:18(B):HIS:N	2.34	0.61
1:O:29:VAL:HA	1:O:72:LYS:O	1.99	0.61
2:P:42:HIS:O	2:P:46:TYR:N	2.33	0.61
2:P:134:GLU:OE1	2:P:134:GLU:N	2.34	0.61
1:Q:3:VAL:HG21	1:Q:25:LEU:HB3	1.83	0.61
2:R:54:ASP:OD1	2:R:54:ASP:N	2.34	0.61
2:R:149:CYS:O	2:R:153:CYS:N	2.32	0.61
1:A:0:LYS:HD2	1:A:1:LEU:HD13	1.81	0.61
1:C:118:ILE:H	1:C:145:SER:HA	1.64	0.61
1:C:183:ARG:HE	1:C:187:ALA:HB3	1.64	0.61
1:C:279:VAL:H	1:C:282:ASP:CG	2.04	0.61
1:C:284:ARG:NH2	1:C:285:CYS:SG	2.61	0.61
1:E:16:LEU:CD2	1:E:44:LEU:CD1	2.70	0.61
1:E:132:VAL:N	1:E:134:GLU:OE1	2.34	0.61
1:G:312:ASP:OD1	1:G:315:TRP:N	2.29	0.61
2:H:149:CYS:SG	2:H:150:THR:N	2.72	0.61
2:J:203:ILE:HG13	2:J:232:VAL:HG12	1.83	0.61
2:J:270:ILE:HA	2:J:320:ARG:HH11	1.64	0.61
2:L:137:TYR:OH	2:L:139:HIS:ND1	2.34	0.61
2:L:298:MET:HG2	2:L:306:LYS:HB3	1.83	0.61
2:P:79:PRO:HA	2:P:82:LEU:HD12	1.83	0.61
2:P:117:LEU:HD21	2:P:146:ASN:HB2	1.82	0.61
1:Q:157:PHE:O	1:Q:160:VAL:N	2.33	0.61
2:R:17:ARG:NH2	2:R:54:ASP:OD1	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:204:VAL:HB	2:R:231:ARG:HB2	1.83	0.61
2:B:126:PRO:HD2	2:B:144:ILE:HA	1.81	0.61
1:C:167:ILE:HD12	1:C:221:LEU:HD21	1.83	0.61
2:F:31:ASN:ND2	2:F:76:ASP:O	2.29	0.61
2:F:134:GLU:N	2:F:134:GLU:OE1	2.33	0.61
2:F:297:THR:HG22	2:F:308:ILE:H	1.65	0.61
1:K:34:GLY:O	1:K:39:SER:OG	2.13	0.61
1:K:170:GLY:HA3	1:K:244:VAL:HA	1.83	0.61
2:L:100:VAL:HG13	2:L:122(A):LYS:HB2	1.81	0.61
2:L:126:PRO:HD2	2:L:144:ILE:HA	1.82	0.61
1:O:1:LEU:O	1:O:3:VAL:HG23	2.01	0.61
1:O:41:THR:CB	1:O:59:ILE:HG12	2.31	0.61
1:O:60(A):ASP:C	1:O:62:GLU:H	2.03	0.61
1:O:62:GLU:HB3	1:O:72:LYS:HE3	1.82	0.61
1:O:169:LYS:HG3	1:Q:301:GLY:HA3	1.82	0.61
2:D:86:ASP:OD1	2:D:86:ASP:N	2.24	0.61
2:D:134:GLU:OE1	2:D:134:GLU:N	2.33	0.61
2:D:147:ALA:O	2:D:317:TYR:OH	2.19	0.61
1:E:222:LYS:O	1:E:224:LYS:NZ	2.32	0.61
2:F:10:ARG:NH1	1:G:185:LEU:CG	2.64	0.61
2:F:42:HIS:HA	2:F:46:TYR:HD2	1.65	0.61
2:F:186:ASP:N	2:F:186:ASP:OD1	2.33	0.61
2:F:265:ASN:OD1	2:F:266:GLU:N	2.34	0.61
1:G:220:GLN:HG2	1:G:221:LEU:HD12	1.83	0.61
1:I:29:VAL:HA	1:I:72:LYS:O	1.98	0.61
1:I:256:ASN:ND2	1:I:257:ASN:OD1	2.33	0.61
1:I:275:ASP:HA	1:I:293:ASP:HB2	1.82	0.61
1:I:281:VAL:HA	1:I:284:ARG:HG3	1.83	0.61
2:J:159:LYS:O	2:J:163:GLN:N	2.23	0.61
2:J:249:LYS:HD2	2:J:302:ASP:HB2	1.83	0.61
1:K:6:ASN:N	1:K:93:ILE:O	2.26	0.61
1:K:16:LEU:O	1:K:18(B):HIS:N	2.21	0.61
1:K:84:TRP:CD2	1:K:89:ILE:HD12	2.36	0.61
2:L:134:GLU:OE1	2:L:134:GLU:N	2.33	0.61
1:O:195:ARG:NH2	1:C:361:TYR:O	2.33	0.61
1:O:272:ASP:HB2	1:O:288:PHE:CG	2.35	0.61
1:O:347:ASP:O	1:O:351:ASP:N	2.33	0.61
2:P:131:GLY:N	2:P:134:GLU:OE2	2.33	0.61
2:R:170:GLY:HA3	2:R:225:LEU:HD13	1.83	0.61
2:R:315:TRP:O	2:R:318:SER:OG	2.18	0.61
1:A:47:ASP:OD2	1:A:50:LEU:N	2.24	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:60:ILE:HG22	1:A:60(A):ASP:H	1.65	0.61
1:C:5:ILE:HG23	1:C:30:VAL:HG13	1.83	0.61
1:C:9:GLY:HA2	3:C:401:NAD:H4B	1.83	0.61
2:D:154:LEU:HD21	2:D:210:ALA:HB1	1.83	0.61
1:E:301:GLY:N	1:E:303:ASP:OD1	2.34	0.61
2:F:84:TRP:HD1	2:F:111:ALA:HB3	1.66	0.61
2:F:161:LEU:O	2:F:165:PHE:N	2.32	0.61
1:G:46:TYR:HD1	1:G:52:THR:HG1	1.47	0.61
2:H:54:ASP:OD1	2:H:54:ASP:N	2.33	0.61
2:H:118:ILE:O	2:H:145:SER:OG	2.19	0.61
2:J:324:LEU:HA	2:J:327:ILE:HD12	1.83	0.61
1:K:179:THR:O	1:K:182:GLN:NE2	2.34	0.61
3:K:401:NAD:H2N	3:K:401:NAD:H52N	1.82	0.61
2:L:203:ILE:HG13	2:L:232:VAL:HG12	1.83	0.61
1:O:47:ASP:CG	1:O:49:ILE:H	2.04	0.61
1:O:94:GLU:OE1	1:O:97:GLY:N	2.27	0.61
1:O:256:ASN:O	1:O:260:ARG:N	2.21	0.61
1:A:7:GLY:N	1:A:31:ASN:O	2.27	0.61
1:A:176:HIS:NE2	1:A:179:THR:OG1	2.25	0.61
1:A:184:LEU:HA	2:D:184:LEU:HD13	1.83	0.61
2:B:102:ARG:NH2	2:B:126:PRO:HD3	2.16	0.61
2:B:290:SER:OG	2:B:310:TRP:O	2.15	0.61
2:D:18:CYS:O	2:D:20:ARG:N	2.34	0.61
2:D:79:PRO:HB3	2:D:108:HIS:CE1	2.36	0.61
1:E:317:TYR:O	1:E:321:VAL:HG13	2.01	0.61
2:F:18(A):TRP:HE1	2:F:23:SER:HG	1.48	0.61
2:F:38:LYS:N	2:F:38:LYS:HZ2	1.98	0.61
2:F:79:PRO:HA	2:F:82:LEU:HD12	1.81	0.61
1:G:90:ASP:HB2	1:G:91:ILE:HD13	1.82	0.61
1:G:209:GLY:O	1:G:213:ALA:N	2.25	0.61
1:G:226:ASN:OD1	1:G:227:GLY:N	2.30	0.61
2:H:253:GLU:O	2:H:257:ALA:N	2.21	0.61
2:J:290:SER:OG	2:J:310:TRP:O	2.15	0.61
1:K:186:ASP:OD1	1:K:198:ALA:N	2.32	0.61
2:L:10:ARG:CB	3:L:401:NAD:O1N	2.48	0.61
1:O:191:ARG:NH2	1:C:358:CYS:O	2.23	0.60
2:P:203:ILE:HG13	2:P:232:VAL:HG12	1.83	0.60
1:Q:60(A):ASP:HB3	1:Q:62:GLU:O	2.01	0.60
2:R:45:LYS:HB2	2:R:57:VAL:HG21	1.81	0.60
2:R:240:VAL:HG13	2:R:309:ALA:HB3	1.83	0.60
1:A:100:VAL:HB	1:A:122(A):LYS:HG2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:147:ALA:O	2:B:317:TYR:OH	2.15	0.60
1:C:156:PRO:HB3	1:C:267:LEU:HD13	1.83	0.60
1:E:238:SER:O	1:E:311:TYR:N	2.32	0.60
1:G:63:THR:HA	1:G:72:LYS:HA	1.83	0.60
1:I:244:VAL:O	1:I:305:VAL:N	2.27	0.60
2:J:214:VAL:HA	2:J:217:VAL:HG22	1.82	0.60
1:K:177:SER:HA	1:K:234:THR:HG23	1.82	0.60
2:L:18:CYS:O	2:L:20:ARG:N	2.34	0.60
2:L:33:THR:HG23	2:L:77:ARG:HD3	1.83	0.60
2:L:181:ASP:HB3	2:L:182:GLN:HE21	1.66	0.60
2:L:220:ASN:O	2:L:224:LYS:NZ	2.25	0.60
2:P:174:THR:HG1	2:P:311:TYR:HH	1.49	0.60
2:P:250:THR:OG1	2:P:254:GLU:OE1	2.16	0.60
2:R:101:ASP:OD2	2:R:104:GLY:N	2.21	0.60
1:C:9:GLY:O	1:C:13:ARG:NH2	2.33	0.60
2:D:10:ARG:HB2	3:D:401:NAD:O1N	2.00	0.60
2:D:45:LYS:HZ2	2:D:53:PHE:HB3	1.64	0.60
2:D:298:MET:HG2	2:D:306:LYS:HB3	1.82	0.60
1:E:315:TRP:O	1:E:318:SER:OG	2.18	0.60
2:F:19:GLY:O	2:F:21:LYS:NZ	2.32	0.60
2:F:204:VAL:N	2:F:231:ARG:O	2.25	0.60
1:G:60:ILE:HB	1:G:64:PHE:HA	1.82	0.60
1:G:104:GLY:HA2	1:G:107:LYS:HE2	1.82	0.60
1:G:236:ASN:HD21	1:G:314:GLU:H	1.49	0.60
1:I:178:TYR:HD2	1:I:233:PRO:HA	1.66	0.60
1:I:183:ARG:HB2	1:I:188:SER:CB	2.29	0.60
2:J:63:ALA:HA	2:J:72:LYS:HA	1.83	0.60
2:J:279:VAL:HB	2:L:202:ASN:HB3	1.83	0.60
1:K:6:ASN:HD22	1:K:95:GLY:H	1.47	0.60
1:K:194:ARG:HB3	1:K:204:VAL:HG23	1.83	0.60
1:K:256:ASN:HA	1:K:259:PHE:HD2	1.65	0.60
2:L:240:VAL:N	2:L:309:ALA:O	2.21	0.60
2:L:293:ASP:OD1	2:L:296:LEU:N	2.28	0.60
1:O:13:ARG:C	1:O:44:LEU:HD11	2.22	0.60
1:O:183:ARG:HH12	1:C:357:GLU:H	1.48	0.60
1:Q:0:LYS:H1	1:Q:0:LYS:HD3	1.67	0.60
1:Q:6:ASN:ND2	1:Q:6:ASN:O	2.34	0.60
2:R:45:LYS:NZ	2:R:53:PHE:O	2.30	0.60
1:A:58:LYS:HZ2	1:A:58:LYS:HA	1.65	0.60
2:B:10:ARG:CA	3:B:401:NAD:O1N	2.50	0.60
1:C:37:VAL:HG12	1:C:59:ILE:HG23	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:45:LYS:NZ	1:C:53:PHE:O	2.32	0.60
1:E:13:ARG:C	1:E:17:ARG:HE	2.05	0.60
1:E:256:ASN:HA	1:E:259:PHE:HB2	1.83	0.60
2:F:47:ASP:CG	2:F:49:ILE:H	2.04	0.60
2:F:183:ARG:HH22	2:F:191:ARG:HH12	1.49	0.60
1:I:124:ASP:OD1	1:I:125:ILE:N	2.31	0.60
1:I:192:ASP:HB3	1:I:195:ARG:HB2	1.83	0.60
1:K:320:ARG:NH2	1:K:321:VAL:HG13	2.15	0.60
2:L:242:LEU:HD11	2:L:244:VAL:HG13	1.84	0.60
1:O:58:LYS:HZ3	1:O:60:ILE:HD13	1.67	0.60
1:O:168:VAL:N	1:O:245:ASN:OD1	2.34	0.60
2:P:164:LYS:O	2:P:248:LYS:NZ	2.27	0.60
2:R:316:GLY:HA2	2:R:319:GLN:HB2	1.81	0.60
2:B:194:ARG:NH1	2:D:278:LEU:O	2.24	0.60
1:C:257:ASN:O	1:C:261:LYS:N	2.26	0.60
2:D:80:VAL:HG22	2:D:107:LYS:HD2	1.83	0.60
1:E:63:THR:HA	1:E:72:LYS:HA	1.84	0.60
1:E:188:SER:OG	2:H:39:GLN:OE1	2.20	0.60
2:F:157:PHE:O	2:F:161:LEU:N	2.28	0.60
2:F:301:GLY:HA3	2:H:169:LYS:HE2	1.83	0.60
2:H:217:VAL:HG23	2:H:218:LEU:HG	1.83	0.60
1:I:45:LYS:HG3	1:I:52:THR:HG23	1.83	0.60
1:K:176:HIS:HB3	1:K:231:ARG:HA	1.82	0.60
2:L:115:LYS:NZ	2:L:139:HIS:O	2.31	0.60
2:L:154:LEU:HD21	2:L:210:ALA:HB1	1.82	0.60
2:L:279:VAL:O	2:L:282:ASP:N	2.31	0.60
2:L:297:THR:HG22	2:L:308:ILE:H	1.65	0.60
2:P:203:ILE:HD11	2:P:230:LEU:HB3	1.81	0.60
1:Q:356:GLU:O	1:I:183:ARG:NH2	2.34	0.60
1:A:41:THR:HG23	1:A:57:VAL:HG11	1.82	0.60
1:A:236:ASN:HA	1:A:313:ASN:HD21	1.66	0.60
2:B:273:VAL:HG23	2:B:292:ILE:HB	1.83	0.60
2:D:161:LEU:O	2:D:165:PHE:N	2.34	0.60
2:D:186:ASP:OD2	2:D:197:ARG:NH2	2.35	0.60
2:F:160:VAL:O	2:F:164:LYS:N	2.33	0.60
2:H:42:HIS:O	2:H:46:TYR:N	2.31	0.60
2:H:203:ILE:HD11	2:H:230:LEU:HB3	1.83	0.60
2:H:315:TRP:O	2:H:318:SER:OG	2.19	0.60
1:I:18(A):TRP:NE1	1:I:23:SER:OG	2.32	0.60
2:R:217:VAL:HG23	2:R:218:LEU:HG	1.82	0.60
1:C:183:ARG:NH1	1:C:183:ARG:HA	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1:LEU:O	1:E:26:ASP:N	2.34	0.60
1:E:59:ILE:O	1:E:59:ILE:CD1	2.45	0.60
2:F:183:ARG:HH22	2:F:191:ARG:HH22	1.50	0.60
2:J:204:VAL:HB	2:J:231:ARG:HB2	1.83	0.60
2:J:211:ALA:O	2:J:226:ASN:ND2	2.35	0.60
1:K:40:ALA:HA	1:K:43:LEU:HB2	1.84	0.60
1:K:94:GLU:OE2	1:K:96:THR:OG1	2.19	0.60
1:K:299:VAL:HA	1:K:305:VAL:HA	1.83	0.60
1:O:243:VAL:HB	1:O:306:LYS:HG3	1.84	0.60
2:P:54:ASP:OD1	2:P:54:ASP:N	2.22	0.60
1:Q:170:GLY:HA2	1:Q:244:VAL:HA	1.83	0.60
2:B:179:THR:N	2:B:182:GLN:OE1	2.34	0.60
2:B:324:LEU:HA	2:B:327:ILE:HD12	1.84	0.60
2:D:8:PHE:CZ	2:D:13:ARG:HG3	2.37	0.60
1:E:128:TYR:N	1:E:145:SER:O	2.35	0.60
2:F:203:ILE:HG13	2:F:232:VAL:HG12	1.82	0.60
2:F:312:ASP:OD1	2:F:315:TRP:N	2.27	0.60
1:I:161:LEU:HD23	1:I:165:LEU:HD23	1.83	0.60
1:I:240:VAL:O	1:I:309:ALA:N	2.22	0.60
2:J:1:LEU:HB3	2:J:25:LEU:HA	1.83	0.60
2:J:102:ARG:NH2	2:J:126:PRO:HD3	2.17	0.60
1:K:292:ILE:HG13	1:K:309:ALA:HA	1.84	0.60
2:L:0:LYS:N	2:L:24:PRO:O	2.32	0.60
1:O:31:ASN:HA	1:O:74:VAL:HG12	1.83	0.60
2:R:118:ILE:O	2:R:145:SER:OG	2.19	0.60
2:B:28:VAL:HA	2:B:71:ILE:HG12	1.84	0.60
1:C:47:ASP:HB3	1:C:51:GLY:N	2.17	0.60
1:C:234:THR:OG1	1:C:237:VAL:HG12	2.02	0.60
2:F:36:GLY:HA3	2:F:38:LYS:HZ1	1.67	0.60
2:F:105:ALA:HB1	2:F:116:VAL:HG11	1.84	0.60
2:F:273:VAL:HA	2:F:292:ILE:H	1.65	0.60
1:G:159:LYS:NZ	1:G:163:GLU:OE2	2.32	0.60
1:G:167:ILE:N	1:G:247:GLU:OE2	2.35	0.60
2:H:76:ASP:OD1	2:H:78:ASN:N	2.35	0.60
1:I:325:ALA:O	1:I:329:ALA:N	2.34	0.60
2:L:318:SER:O	2:L:322:VAL:N	2.19	0.60
1:O:129:VAL:N	1:O:133:ASN:OD1	2.31	0.60
1:O:362:GLU:N	1:C:181:ASP:OD2	2.34	0.60
1:Q:299:VAL:HA	1:Q:305:VAL:HG12	1.82	0.60
2:R:206:THR:OG1	2:R:207:SER:N	2.35	0.60
1:A:124:ASP:H	1:G:143:ILE:HD12	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:13:ARG:HB3	2:B:44:LEU:HA	1.84	0.60
2:B:94:GLU:OE2	2:B:96:THR:OG1	2.18	0.60
2:B:118:ILE:H	2:B:145:SER:HA	1.67	0.60
2:B:228:ILE:H	2:D:306:LYS:HZ2	1.48	0.60
1:E:18:CYS:O	1:E:20:ARG:HB2	2.02	0.60
2:F:10:ARG:HH22	1:G:185:LEU:HD11	1.61	0.60
1:G:32:ASP:N	1:G:74:VAL:O	2.20	0.60
1:I:134:GLU:CD	1:I:134:GLU:H	2.06	0.60
1:K:37:VAL:HG12	1:K:59:ILE:HG12	1.84	0.60
2:P:58:LYS:HE2	2:P:59:THR:H	1.67	0.60
2:P:265:ASN:OD1	2:P:266:GLU:N	2.35	0.60
1:Q:242:LEU:HB3	1:Q:307:VAL:HG13	1.83	0.60
2:R:218:LEU:O	2:R:222:LYS:NZ	2.31	0.60
2:R:253:GLU:O	2:R:257:ALA:N	2.22	0.60
1:A:47:ASP:CG	1:A:49:ILE:H	2.04	0.60
2:D:129:VAL:N	2:D:133:ASN:OD1	2.35	0.60
2:D:242:LEU:HD11	2:D:244:VAL:HG13	1.83	0.60
1:E:211:ALA:HB3	1:E:212:LYS:HZ1	1.67	0.60
2:F:10:ARG:HA	2:F:13:ARG:HD2	1.82	0.60
1:G:2:LYS:NZ	1:G:87:LEU:O	2.27	0.60
1:I:36:GLY:O	1:I:39:SER:OG	2.20	0.60
1:I:104:GLY:HA2	1:I:107:LYS:HD2	1.84	0.60
1:I:240:VAL:N	1:I:309:ALA:O	2.32	0.60
1:K:86:GLU:OE1	1:K:86:GLU:N	2.19	0.60
2:L:287:ASP:OD1	2:L:315:TRP:NE1	2.34	0.60
1:O:45:LYS:HZ2	1:O:53:PHE:HB3	1.67	0.59
1:O:60:ILE:HB	1:O:63:THR:HB	1.84	0.59
2:P:301:GLY:HA3	2:R:169:LYS:HE2	1.83	0.59
1:Q:147:ALA:O	1:Q:317:TYR:OH	2.10	0.59
2:R:7:GLY:O	2:R:9:GLY:N	2.34	0.59
2:B:3:VAL:HB	2:B:27:VAL:HG22	1.82	0.59
2:B:172:MET:HG3	2:B:242:LEU:HD13	1.83	0.59
1:C:107:LYS:O	1:C:111:ALA:N	2.34	0.59
2:D:18(A):TRP:HE1	2:D:23:SER:HG	1.45	0.59
2:D:30:ILE:HG22	2:D:31:ASN:H	1.67	0.59
2:D:126:PRO:HD2	2:D:144:ILE:HA	1.83	0.59
1:E:101:ASP:HB2	1:E:103:PRO:HD2	1.84	0.59
1:E:162:ASP:HA	1:E:166:GLY:H	1.67	0.59
1:E:203:ILE:HG12	1:E:204:VAL:N	2.15	0.59
1:G:18:CYS:O	1:G:20:ARG:N	2.35	0.59
1:G:156:PRO:HG2	1:G:290:SER:OG	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:174:THR:HG22	1:G:229:ALA:HB1	1.83	0.59
2:H:206:THR:OG1	2:H:207:SER:N	2.35	0.59
1:I:60(A):ASP:OD2	1:I:61:ASN:ND2	2.35	0.59
2:J:18:CYS:O	2:J:20:ARG:N	2.35	0.59
2:J:45:LYS:NZ	2:J:53:PHE:O	2.34	0.59
1:O:37:VAL:HG13	1:O:61:ASN:C	2.23	0.59
1:O:64:PHE:N	1:O:71:ILE:O	2.35	0.59
1:O:238:SER:OG	1:O:311:TYR:O	2.14	0.59
2:P:213:ALA:HA	2:P:216:LEU:HB2	1.84	0.59
2:R:203:ILE:HG23	2:R:205:PRO:HD3	1.84	0.59
1:A:56:ASP:N	1:A:67:ASP:OD2	2.35	0.59
1:A:127:THR:O	1:A:133:ASN:ND2	2.35	0.59
2:B:1:LEU:HB3	2:B:25:LEU:HA	1.82	0.59
2:B:319:GLN:O	2:B:323:ASP:N	2.26	0.59
1:C:119:THR:O	1:C:119:THR:OG1	2.18	0.59
2:D:272:SER:OG	2:D:273:VAL:N	2.34	0.59
2:D:324:LEU:HA	2:D:327:ILE:HD12	1.83	0.59
2:F:177:SER:OG	2:F:234:THR:O	2.14	0.59
1:G:178:TYR:HD2	1:G:233:PRO:HA	1.66	0.59
1:I:37:VAL:O	1:I:41:THR:N	2.23	0.59
1:I:182:GLN:HB3	1:I:195:ARG:HH11	1.68	0.59
2:J:38:LYS:N	2:J:38:LYS:HZ2	2.00	0.59
1:K:192:ASP:OD2	1:K:195:ARG:N	2.23	0.59
1:K:206:THR:N	1:K:229:ALA:O	2.34	0.59
2:L:94:GLU:OE2	2:L:98:VAL:N	2.36	0.59
1:O:37:VAL:CG1	1:O:61:ASN:C	2.70	0.59
1:O:45:LYS:NZ	1:O:53:PHE:HB3	2.17	0.59
1:O:209:GLY:O	1:O:212:LYS:HG2	2.01	0.59
1:O:272:ASP:OD1	1:O:273:VAL:N	2.31	0.59
2:P:116:VAL:N	2:P:142:THR:O	2.25	0.59
1:Q:11:ILE:HG22	3:Q:401:NAD:O2N	2.01	0.59
1:A:251:THR:OG1	1:A:253:GLU:OE1	2.12	0.59
2:B:197:ARG:NH1	1:C:46:TYR:O	2.33	0.59
1:C:105:ALA:HA	1:C:108:HIS:CD2	2.38	0.59
1:C:209:GLY:O	1:C:213:ALA:N	2.20	0.59
2:F:94:GLU:O	2:F:119:THR:OG1	2.17	0.59
1:I:17:ARG:NH2	1:I:50:LEU:O	2.35	0.59
1:I:21:LYS:H	1:I:21:LYS:NZ	1.95	0.59
2:J:15:PHE:HZ	2:J:325:ALA:HB2	1.66	0.59
2:J:30:ILE:O	2:J:73:VAL:HA	2.02	0.59
2:J:91:LEU:HD21	2:J:93:ILE:HD11	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:204:VAL:O	2:J:230:LEU:HA	2.01	0.59
1:K:315:TRP:O	1:K:318:SER:OG	2.10	0.59
2:L:115:LYS:HD3	2:L:142:THR:HA	1.85	0.59
2:L:147:ALA:O	2:L:317:TYR:OH	2.20	0.59
1:O:13:ARG:O	1:O:44:LEU:HD11	2.01	0.59
1:A:172:MET:SD	1:A:173:THR:N	2.75	0.59
2:B:214:VAL:HA	2:B:217:VAL:HG22	1.82	0.59
1:C:162:ASP:HA	1:C:166:GLY:H	1.66	0.59
2:D:312:ASP:OD2	2:D:315:TRP:HB3	2.03	0.59
1:E:83:PRO:HB3	1:E:86:GLU:HB2	1.84	0.59
1:E:103:PRO:O	1:E:107:LYS:N	2.25	0.59
1:E:139:HIS:CE1	1:E:332:TRP:HA	2.37	0.59
2:F:206:THR:OG1	2:F:207:SER:N	2.35	0.59
2:H:250:THR:OG1	2:H:251:PHE:N	2.36	0.59
2:H:265:ASN:N	2:H:265:ASN:OD1	2.33	0.59
1:K:246:ILE:HG13	1:K:248:LYS:H	1.67	0.59
2:P:281:ILE:HG23	2:P:282:ASP:OD1	2.03	0.59
2:R:331:LYS:HB2	2:R:333:GLN:HE22	1.67	0.59
1:C:251:THR:HA	1:C:299:VAL:HG11	1.85	0.59
1:E:193:LEU:HD22	1:G:277:PRO:HG2	1.84	0.59
2:F:13:ARG:O	2:F:17:ARG:N	2.29	0.59
2:F:27:VAL:O	2:F:69:LYS:NZ	2.35	0.59
2:F:174:THR:HA	2:F:240:VAL:HB	1.84	0.59
2:F:182:GLN:HA	2:F:195:ARG:HB3	1.84	0.59
2:F:290:SER:OG	2:F:310:TRP:O	2.12	0.59
1:G:145:SER:OG	1:G:146:ASN:N	2.36	0.59
1:G:220:GLN:OE1	1:G:220:GLN:N	2.34	0.59
2:H:104:GLY:HA2	2:H:107:LYS:HB2	1.84	0.59
2:H:139:HIS:NE2	2:H:334:UNK:O	2.35	0.59
2:H:331:LYS:HB2	2:H:333:GLN:HE22	1.67	0.59
1:K:29:VAL:HA	1:K:72:LYS:O	2.03	0.59
1:K:220:GLN:OE1	1:K:221:LEU:N	2.36	0.59
2:P:206:THR:OG1	2:P:207:SER:N	2.35	0.59
1:Q:192:ASP:OD2	1:Q:195:ARG:NH1	2.35	0.59
1:A:34:GLY:O	1:A:39:SER:OG	2.19	0.59
1:A:342:GLY:O	2:F:75:SER:N	2.35	0.59
2:B:92:VAL:HB	2:B:116:VAL:HG22	1.84	0.59
1:C:356:GLU:O	1:C:358:CYS:N	2.35	0.59
2:D:105:ALA:HB1	2:D:116:VAL:HG11	1.85	0.59
1:G:171:THR:O	1:G:243:VAL:N	2.35	0.59
2:H:33:THR:H	3:H:401:NAD:C2A	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:253:GLU:HA	2:H:256:ASN:HB2	1.83	0.59
1:I:84:TRP:O	1:I:88:GLY:N	2.36	0.59
1:I:213:ALA:HA	1:I:216:LEU:HD23	1.84	0.59
2:J:191:ARG:NH1	2:J:191:ARG:H	2.00	0.59
1:K:64:PHE:HE1	1:K:73:VAL:HB	1.66	0.59
1:K:74:VAL:HG12	1:K:75:SER:H	1.67	0.59
1:K:118:ILE:O	1:K:145:SER:OG	2.20	0.59
1:O:60(A):ASP:O	1:O:62:GLU:N	2.35	0.59
1:O:66:ILE:HD12	1:O:69:LYS:HD2	1.85	0.59
1:Q:10:ARG:N	3:Q:401:NAD:O2N	2.35	0.59
2:R:253:GLU:HA	2:R:256:ASN:HB2	1.83	0.59
2:R:318:SER:O	2:R:322:VAL:HG23	2.03	0.59
1:C:220:GLN:H	1:C:220:GLN:CD	2.04	0.59
1:G:84:TRP:HB3	1:G:89:ILE:HB	1.83	0.59
1:G:127:THR:O	1:G:133:ASN:ND2	2.35	0.59
2:H:79:PRO:HB3	2:H:108:HIS:CE1	2.38	0.59
1:I:4:ALA:O	1:I:93:ILE:N	2.33	0.59
1:I:115:LYS:HA	1:I:142:ASN:HB3	1.85	0.59
1:K:5:ILE:HA	1:K:93:ILE:H	1.68	0.59
1:K:161:LEU:O	1:K:165:LEU:N	2.30	0.59
1:K:312:ASP:OD2	1:K:315:TRP:N	2.36	0.59
2:L:79:PRO:HB3	2:L:108:HIS:CE1	2.37	0.59
2:L:115:LYS:NZ	2:L:141:ASP:O	2.35	0.59
1:O:169:LYS:HA	1:O:224:LYS:HB2	1.85	0.59
1:O:204:VAL:N	1:O:231:ARG:O	2.34	0.59
2:R:28:VAL:O	2:R:72:LYS:N	2.21	0.59
2:R:147:ALA:HB1	2:R:151:THR:HB	1.85	0.59
2:R:250:THR:OG1	2:R:251:PHE:N	2.36	0.59
1:C:74:VAL:HG12	1:C:75:SER:H	1.67	0.59
1:C:256:ASN:HA	1:C:259:PHE:HB2	1.85	0.59
2:D:237:VAL:HG22	2:D:312:ASP:HA	1.85	0.59
2:F:213:ALA:HA	2:F:216:LEU:HB2	1.84	0.59
2:H:299:VAL:HG22	2:H:305:VAL:HG13	1.83	0.59
2:J:11:ILE:HG12	3:J:401:NAD:PN	2.42	0.59
2:J:17:ARG:CZ	2:J:53:PHE:HA	2.32	0.59
2:J:280:SER:OG	2:L:202:ASN:ND2	2.34	0.59
2:L:132:VAL:HG22	2:L:159:LYS:HE2	1.85	0.59
1:Q:184:LEU:O	1:Q:198:ALA:HA	2.02	0.59
2:R:4:ALA:HB3	2:R:84:TRP:CZ3	2.38	0.59
2:R:104:GLY:HA2	2:R:107:LYS:HB2	1.84	0.59
1:A:9:GLY:O	1:A:13:ARG:N	2.27	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:42:HIS:O	2:B:46:TYR:N	2.32	0.59
2:D:42:HIS:HA	2:D:45:LYS:HB3	1.84	0.59
2:D:47:ASP:CG	2:D:49:ILE:H	2.06	0.59
2:F:164:LYS:O	2:F:248:LYS:NZ	2.27	0.59
1:G:7:GLY:N	1:G:31:ASN:HB3	2.13	0.59
1:G:194:ARG:HG2	1:G:206:THR:HB	1.84	0.59
1:I:312:ASP:OD2	1:I:315:TRP:N	2.34	0.59
2:J:8:PHE:CZ	2:J:13:ARG:HG3	2.38	0.59
2:J:56:ASP:N	2:J:67:ASP:OD2	2.36	0.59
2:J:106:GLY:O	2:J:110:GLN:N	2.25	0.59
2:J:251:PHE:HE2	2:J:253:GLU:HB3	1.67	0.59
1:K:72:LYS:NZ	1:K:73:VAL:O	2.31	0.59
2:L:8:PHE:CZ	2:L:13:ARG:HG3	2.37	0.59
1:O:184:LEU:HB3	2:R:184:LEU:HB2	1.83	0.59
2:P:167:ILE:HG21	2:P:225:LEU:HD11	1.85	0.59
1:Q:238:SER:HB2	1:Q:311:TYR:CZ	2.37	0.59
2:R:176:HIS:ND1	2:R:177:SER:O	2.31	0.59
2:R:179:THR:H	2:R:182:GLN:HE22	1.51	0.59
2:R:299:VAL:HG22	2:R:305:VAL:HG13	1.84	0.59
1:A:3:VAL:N	1:A:26:ASP:O	2.35	0.59
1:A:18(A):TRP:NE1	1:A:25:LEU:O	2.34	0.59
1:C:213:ALA:HA	1:C:216:LEU:HD23	1.85	0.59
1:C:297:THR:HA	1:C:306:LYS:NZ	2.18	0.59
2:D:100:VAL:HG13	2:D:122(A):LYS:HB2	1.84	0.59
1:E:281:VAL:O	1:E:284:ARG:N	2.33	0.59
2:F:10:ARG:HH12	1:G:185:LEU:HB2	1.65	0.59
2:F:10:ARG:HH11	1:G:185:LEU:HB3	1.64	0.59
2:F:133:ASN:N	2:F:133:ASN:OD1	2.35	0.59
2:F:181:ASP:OD1	2:F:195:ARG:NH1	2.36	0.59
1:G:315:TRP:O	1:G:318:SER:OG	2.21	0.59
1:I:315:TRP:O	1:I:318:SER:OG	2.20	0.59
2:J:172:MET:HG3	2:J:242:LEU:HD13	1.85	0.59
2:J:318:SER:O	2:J:322:VAL:HG23	2.03	0.59
1:K:93:ILE:HA	1:K:117:ILE:O	2.02	0.59
2:L:206:THR:HG23	2:L:229:ALA:HB3	1.85	0.59
2:L:272:SER:OG	2:L:273:VAL:N	2.35	0.59
1:O:28:VAL:O	1:O:72:LYS:N	2.35	0.58
2:P:174:THR:HA	2:P:240:VAL:HB	1.85	0.58
1:Q:204:VAL:O	1:Q:231:ARG:N	2.32	0.58
2:R:162:ASP:OD1	2:R:167:ILE:N	2.30	0.58
1:A:20:ARG:HE	1:A:322:VAL:HG11	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:253:GLU:OE1	1:A:253:GLU:N	2.28	0.58
1:A:301:GLY:HA3	1:A:304:MET:HB3	1.84	0.58
2:D:115:LYS:NZ	2:D:141:ASP:O	2.35	0.58
2:D:204:VAL:O	2:D:230:LEU:HA	2.03	0.58
2:D:318:SER:HA	2:D:321:VAL:HB	1.85	0.58
1:E:195:ARG:HH22	1:E:231:ARG:NH1	2.00	0.58
1:E:215:SER:OG	1:E:218:LEU:O	2.18	0.58
1:I:87:LEU:HB3	1:I:89:ILE:HG12	1.84	0.58
1:I:129:VAL:HG12	1:I:133:ASN:HD21	1.68	0.58
2:L:169:LYS:O	2:L:245:GLN:N	2.36	0.58
1:Q:251:THR:OG1	1:Q:253:GLU:OE1	2.14	0.58
1:Q:254:ASP:OD1	1:Q:255:VAL:N	2.33	0.58
2:R:115:LYS:NZ	2:R:141:ASP:O	2.36	0.58
2:R:129:VAL:HA	2:R:324:LEU:HD11	1.85	0.58
1:A:275:ASP:HA	1:A:293:ASP:HB2	1.83	0.58
2:D:65:SER:HA	2:D:70:VAL:CA	2.32	0.58
1:E:18(A):TRP:CZ3	1:E:69:LYS:HD3	2.38	0.58
2:H:318:SER:O	2:H:322:VAL:HG23	2.03	0.58
1:I:107:LYS:O	1:I:111:ALA:N	2.35	0.58
2:J:177:SER:OG	2:J:234:THR:O	2.14	0.58
2:J:193:LEU:H	2:J:193:LEU:HD12	1.68	0.58
2:J:275:ASP:OD1	2:J:294:SER:N	2.36	0.58
1:K:281:VAL:HG12	1:K:284:ARG:HH11	1.68	0.58
1:O:83:PRO:HA	1:O:86:GLU:CD	2.24	0.58
1:O:90:ASP:HA	1:O:114:LYS:HZ2	1.68	0.58
1:O:176:HIS:N	1:O:230:LEU:O	2.32	0.58
1:Q:12:GLY:HA2	1:Q:15:PHE:HB3	1.84	0.58
1:Q:60:ILE:HG12	1:Q:64:PHE:HA	1.85	0.58
2:B:8:PHE:CZ	2:B:13:ARG:HG3	2.39	0.58
2:B:56:ASP:N	2:B:67:ASP:OD2	2.36	0.58
1:C:249:GLY:HA3	1:C:302:GLY:HA3	1.83	0.58
2:D:84:TRP:O	2:D:88:GLY:N	2.36	0.58
1:E:3:VAL:N	1:E:26:ASP:O	2.30	0.58
1:E:232:VAL:HG23	1:E:234:THR:HG22	1.85	0.58
1:G:218:LEU:HD23	1:G:220:GLN:HE21	1.67	0.58
1:G:254:ASP:OD1	1:G:255:VAL:N	2.33	0.58
1:K:118:ILE:N	1:K:145:SER:HA	2.15	0.58
2:L:161:LEU:O	2:L:165:PHE:N	2.34	0.58
2:L:203:ILE:HD11	2:L:230:LEU:HB3	1.85	0.58
1:O:18(B):HIS:HD2	1:O:19:GLY:N	2.00	0.58
2:P:267:LEU:HB3	2:P:271:LEU:HB2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:236:ASN:HD21	1:Q:314:GLU:H	1.51	0.58
1:Q:291:THR:HB	1:Q:310:TRP:HB2	1.85	0.58
1:A:0:LYS:N	1:A:24:PRO:O	2.36	0.58
1:A:28:VAL:HG23	1:A:29:VAL:HG23	1.86	0.58
1:A:47:ASP:OD1	1:A:48:SER:N	2.36	0.58
1:A:65:SER:OG	1:A:69:LYS:N	2.35	0.58
1:A:139:HIS:CD2	1:A:333:PRO:HD3	2.39	0.58
1:A:287:ASP:O	1:A:320:ARG:NH1	2.34	0.58
2:B:251:PHE:HE2	2:B:253:GLU:HB3	1.68	0.58
1:C:14:ASN:ND2	1:C:14:ASN:H	2.00	0.58
2:D:32:ASP:OD2	3:D:401:NAD:O3B	2.18	0.58
1:G:317:TYR:O	1:G:321:VAL:N	2.29	0.58
1:I:45:LYS:NZ	1:I:55:ALA:O	2.27	0.58
2:J:90:ASP:HA	2:J:114:LYS:HB2	1.86	0.58
1:K:41:THR:HG21	1:K:59:ILE:HG13	1.84	0.58
2:L:271:LEU:HD21	2:L:290:SER:HB3	1.86	0.58
1:O:194:ARG:NH1	1:Q:278:LEU:O	2.36	0.58
2:P:89:ILE:N	2:P:112:GLY:O	2.35	0.58
2:P:257:ALA:HA	2:P:260:ARG:HB2	1.86	0.58
1:Q:186:ASP:OD1	1:Q:198:ALA:N	2.36	0.58
2:B:249:LYS:HD2	2:B:302:ASP:HB2	1.84	0.58
2:B:318:SER:O	2:B:322:VAL:HG23	2.03	0.58
1:C:62:GLU:HB2	1:C:72:LYS:HE3	1.85	0.58
2:D:169:LYS:O	2:D:245:GLN:N	2.37	0.58
1:E:168:VAL:HG23	1:E:247:GLU:HB3	1.84	0.58
2:F:30:ILE:O	2:F:73:VAL:HA	2.03	0.58
2:F:102:ARG:NH2	2:F:124:ASP:O	2.37	0.58
2:F:102:ARG:HH22	2:F:126:PRO:HD2	1.68	0.58
2:F:202:ASN:HD21	2:H:281:ILE:H	1.51	0.58
1:G:165:LEU:HD21	1:G:305:VAL:HG21	1.85	0.58
1:G:287:ASP:OD1	1:G:319:GLN:NE2	2.23	0.58
2:H:115:LYS:NZ	2:H:141:ASP:O	2.36	0.58
2:H:166:GLY:O	2:H:247:SER:N	2.22	0.58
1:I:2:LYS:HB2	1:I:89:ILE:HA	1.83	0.58
1:I:220:GLN:HG2	1:I:221:LEU:HD23	1.84	0.58
1:I:290:SER:OG	1:I:291:THR:N	2.37	0.58
1:K:72:LYS:HZ2	1:K:74:VAL:HG22	1.67	0.58
1:K:184:LEU:HG	1:K:185:LEU:HG	1.86	0.58
2:L:80:VAL:HG22	2:L:107:LYS:HD2	1.86	0.58
2:R:172:MET:HG3	2:R:242:LEU:HD13	1.86	0.58
2:R:326:ASP:O	2:R:330:ASN:N	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:151:THR:OG1	1:A:152:ASN:OD1	2.21	0.58
2:B:40:ALA:HA	2:B:43:LEU:HD12	1.84	0.58
2:B:44:LEU:HD23	2:B:57:VAL:HB	1.86	0.58
2:B:204:VAL:O	2:B:230:LEU:HA	2.03	0.58
2:B:217:VAL:HG23	2:B:218:LEU:HG	1.86	0.58
1:C:47:ASP:OD1	1:C:48:SER:N	2.35	0.58
2:D:0:LYS:N	2:D:24:PRO:O	2.33	0.58
2:D:94:GLU:OE2	2:D:98:VAL:N	2.36	0.58
1:E:262:ALA:HB1	1:E:267:LEU:HD12	1.85	0.58
2:F:40:ALA:HA	2:F:43:LEU:HD12	1.86	0.58
2:H:38:LYS:HZ3	2:H:39:GLN:HG3	1.69	0.58
2:H:176:HIS:ND1	2:H:177:SER:O	2.32	0.58
2:H:204:VAL:HB	2:H:231:ARG:HB2	1.84	0.58
1:I:5:ILE:HB	1:I:30:VAL:HG13	1.86	0.58
1:I:298:MET:HG2	1:I:306:LYS:HB3	1.86	0.58
2:J:2:LYS:HA	2:J:2:LYS:HZ2	1.68	0.58
2:J:3:VAL:HB	2:J:27:VAL:HG22	1.86	0.58
2:J:6:ASN:HB3	2:J:94:GLU:HA	1.84	0.58
1:O:62:GLU:HB3	1:O:72:LYS:CE	2.33	0.58
2:P:182:GLN:HA	2:P:195:ARG:HB3	1.86	0.58
1:Q:20:ARG:HA	1:Q:20:ARG:NE	2.19	0.58
1:A:107:LYS:O	1:A:111:ALA:N	2.33	0.58
1:A:177:SER:HB3	1:A:234:THR:O	2.04	0.58
2:B:15:PHE:HZ	2:B:325:ALA:HB2	1.67	0.58
2:B:173:THR:N	2:B:241:ASP:OD1	2.37	0.58
2:B:211:ALA:O	2:B:226:ASN:ND2	2.36	0.58
1:C:85:ALA:H	1:C:112:GLY:HA3	1.67	0.58
1:C:184:LEU:H	1:C:184:LEU:HD23	1.68	0.58
2:D:78:ASN:HD22	2:D:81:ASN:CG	2.07	0.58
1:K:5:ILE:HG23	1:K:30:VAL:HG12	1.86	0.58
1:K:321:VAL:HA	1:K:324:LEU:HB2	1.84	0.58
2:L:8:PHE:H	2:L:32:ASP:HB2	1.69	0.58
1:O:151:THR:OG1	1:O:152:ASN:N	2.36	0.58
1:O:313:ASN:N	1:O:313:ASN:OD1	2.36	0.58
2:P:78:ASN:O	2:P:82:LEU:HG	2.03	0.58
2:P:179:THR:N	2:P:182:GLN:OE1	2.24	0.58
1:Q:132:VAL:N	1:Q:134:GLU:OE1	2.37	0.58
1:Q:139(A):ASP:OD1	1:Q:139(A):ASP:N	2.35	0.58
1:Q:319:GLN:O	1:Q:323:ASP:N	2.34	0.58
1:A:28:VAL:HA	1:A:71:ILE:HG12	1.86	0.58
1:A:48:SER:N	2:D:197:ARG:HH22	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:60:ILE:HB	1:A:64:PHE:HA	1.85	0.58
1:A:182:GLN:HG2	1:A:204:VAL:HG21	1.83	0.58
1:A:254:ASP:OD1	1:A:255:VAL:N	2.36	0.58
2:B:202:ASN:HD22	2:D:279:VAL:HB	1.68	0.58
2:B:281:ILE:HG13	2:B:284:ARG:HE	1.67	0.58
1:C:86:GLU:OE1	1:C:86:GLU:N	2.19	0.58
2:D:132:VAL:HG22	2:D:159:LYS:HE2	1.86	0.58
1:E:120:ALA:O	1:E:146:ASN:ND2	2.36	0.58
1:E:361:TYR:H	1:K:195:ARG:HH12	1.52	0.58
2:F:10:ARG:CA	3:F:401:NAD:O1N	2.51	0.58
1:I:65:SER:OG	1:I:66:ILE:N	2.35	0.58
1:I:203:ILE:O	1:I:205:PRO:HD3	2.03	0.58
2:J:47:ASP:OD1	2:J:48:SER:N	2.37	0.58
2:J:228:ILE:H	2:L:306:LYS:HZ2	1.51	0.58
1:K:102:GLY:O	1:K:106:GLY:N	2.27	0.58
1:O:241:ASP:OD1	1:O:307:VAL:N	2.36	0.58
1:Q:145:SER:OG	1:Q:146:ASN:N	2.37	0.58
1:A:3:VAL:HB	1:A:27:VAL:HA	1.86	0.58
2:B:250:THR:N	2:B:302:ASP:HB3	2.13	0.58
1:C:25:LEU:HD11	1:C:329:ALA:HB2	1.84	0.58
1:G:60(A):ASP:OD1	1:G:61:ASN:N	2.32	0.58
2:H:65:SER:HA	2:H:70:VAL:HA	1.84	0.58
2:H:129:VAL:HA	2:H:324:LEU:HD11	1.85	0.58
2:J:281:ILE:H	2:L:202:ASN:HD21	1.50	0.58
1:K:31:ASN:ND2	1:K:76:ASN:O	2.37	0.58
1:K:217:VAL:HG23	1:K:218:LEU:HD22	1.85	0.58
1:K:264:ALA:HA	1:K:268:LYS:NZ	2.19	0.58
2:L:6:ASN:N	2:L:93:ILE:O	2.36	0.58
2:L:270:ILE:HG23	2:L:320:ARG:HD2	1.86	0.58
2:P:38:LYS:N	2:P:38:LYS:HZ2	2.02	0.58
1:Q:258:ALA:O	1:Q:262:ALA:N	2.33	0.58
2:R:13:ARG:O	2:R:17:ARG:N	2.26	0.58
1:A:65:SER:HA	1:A:69:LYS:O	2.04	0.58
1:C:6:ASN:ND2	1:C:95:GLY:H	2.02	0.58
1:E:310:TRP:HH2	1:G:204:VAL:HG22	1.69	0.58
1:E:361:TYR:H	1:K:195:ARG:NH1	2.01	0.58
1:G:10:ARG:CZ	1:G:13:ARG:HE	2.17	0.58
1:G:132:VAL:HG11	1:G:218:LEU:HD11	1.86	0.58
2:H:24:PRO:HB2	2:H:329:ALA:HB1	1.86	0.58
2:J:14:ASN:HD21	2:J:315:TRP:HA	1.69	0.58
2:J:237:VAL:HG21	2:J:284:ARG:HA	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:142:ASN:HD22	1:K:143:ILE:HG13	1.69	0.58
1:K:318:SER:OG	1:K:319:GLN:OE1	2.21	0.58
1:O:147:ALA:O	1:O:152:ASN:ND2	2.35	0.57
1:O:238:SER:O	1:O:311:TYR:N	2.37	0.57
2:P:133:ASN:OD1	2:P:133:ASN:N	2.34	0.57
2:R:157:PHE:HA	2:R:160:VAL:HB	1.86	0.57
1:A:312:ASP:OD2	1:A:315:TRP:N	2.35	0.57
1:C:29:VAL:HA	1:C:72:LYS:O	2.03	0.57
1:C:129:VAL:HG13	1:C:132:VAL:HB	1.86	0.57
2:D:39:GLN:O	2:D:43:LEU:HG	2.03	0.57
2:D:287:ASP:OD1	2:D:315:TRP:NE1	2.31	0.57
1:E:242:LEU:HB3	1:E:307:VAL:HG13	1.86	0.57
1:G:37:VAL:HA	1:G:40:ALA:HB3	1.86	0.57
1:G:332:TRP:O	1:G:334:GLY:N	2.32	0.57
1:I:328:VAL:O	1:I:331:LYS:HG2	2.04	0.57
2:J:263:ALA:HA	2:J:267:LEU:HB2	1.85	0.57
2:L:42:HIS:HA	2:L:45:LYS:HB3	1.86	0.57
2:L:63:ALA:HB1	2:L:70:VAL:HG23	1.86	0.57
2:P:271:LEU:HD12	2:P:290:SER:HB3	1.86	0.57
2:R:85:GLY:N	2:R:111:ALA:O	2.37	0.57
2:R:139:HIS:NE2	2:R:334:UNK:O	2.36	0.57
1:A:173:THR:HA	1:A:228:ILE:O	2.04	0.57
1:A:184:LEU:HB2	2:D:184:LEU:HB2	1.87	0.57
2:B:20:ARG:HG3	2:B:322:VAL:HG11	1.86	0.57
2:B:166:GLY:O	2:B:247:SER:N	2.30	0.57
2:D:203:ILE:HG23	2:D:205:PRO:HD3	1.85	0.57
1:E:124:ASP:OD1	1:E:124:ASP:N	2.37	0.57
1:E:151:THR:HG21	1:E:213:ALA:HB3	1.85	0.57
1:E:238:SER:OG	1:E:311:TYR:O	2.20	0.57
1:G:114:LYS:O	1:G:142:ASN:HB2	2.03	0.57
2:H:147:ALA:HB1	2:H:151:THR:HB	1.85	0.57
1:I:177:SER:OG	1:I:313:ASN:ND2	2.37	0.57
1:I:257:ASN:O	1:I:261:LYS:N	2.25	0.57
2:J:217:VAL:HG23	2:J:218:LEU:HG	1.86	0.57
1:K:42:HIS:NE2	2:L:277:PRO:O	2.32	0.57
2:L:84:TRP:O	2:L:88:GLY:N	2.38	0.57
1:O:318:SER:O	1:O:322:VAL:N	2.19	0.57
1:Q:24:PRO:HB2	1:Q:329:ALA:HB1	1.87	0.57
1:Q:177:SER:OG	1:Q:237:VAL:N	2.26	0.57
2:R:24:PRO:HB2	2:R:329:ALA:HB1	1.87	0.57
1:A:176:HIS:N	1:A:230:LEU:O	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:272:ASP:O	1:A:291:THR:HA	2.04	0.57
2:B:90:ASP:HA	2:B:114:LYS:HB2	1.85	0.57
2:B:203:ILE:HG13	2:B:232:VAL:HG12	1.86	0.57
1:C:176:HIS:O	1:C:232:VAL:N	2.32	0.57
2:D:270:ILE:HG23	2:D:320:ARG:HD2	1.85	0.57
1:E:176:HIS:HB3	1:E:231:ARG:HG3	1.86	0.57
1:E:267:LEU:HD13	1:E:271:LEU:HD12	1.86	0.57
2:F:47:ASP:OD1	2:F:48:SER:N	2.37	0.57
2:F:167:ILE:HG21	2:F:225:LEU:HD11	1.85	0.57
2:H:242:LEU:HB3	2:H:307:VAL:HG22	1.87	0.57
1:I:181:ASP:OD1	1:I:181:ASP:N	2.35	0.57
1:K:14:ASN:ND2	1:K:14:ASN:H	2.03	0.57
1:K:105:ALA:HA	1:K:108:HIS:CD2	2.39	0.57
2:L:1:LEU:N	2:L:24:PRO:O	2.25	0.57
2:L:255:VAL:O	2:L:259:PHE:N	2.34	0.57
1:A:183:ARG:HH21	1:A:190:HIS:HB3	1.69	0.57
2:B:18:CYS:O	2:B:20:ARG:N	2.37	0.57
2:B:183:ARG:HH12	2:B:190:HIS:CD2	2.22	0.57
2:B:249:LYS:NZ	2:B:301:GLY:O	2.31	0.57
1:E:190:HIS:O	2:H:39:GLN:NE2	2.37	0.57
2:F:162:ASP:OD1	2:F:167:ILE:N	2.30	0.57
1:G:20:ARG:NE	1:G:20:ARG:HA	2.18	0.57
1:G:40:ALA:HA	1:G:43:LEU:HD12	1.85	0.57
1:G:126:PRO:HD2	1:G:144:ILE:HA	1.86	0.57
2:H:56:ASP:OD2	2:H:67:ASP:N	2.37	0.57
2:H:205:PRO:HA	2:H:230:LEU:HD23	1.86	0.57
1:I:112:GLY:O	1:I:114:LYS:NZ	2.32	0.57
1:K:85:ALA:H	1:K:112:GLY:HA3	1.68	0.57
1:K:115:LYS:NZ	1:K:332:TRP:HE1	2.03	0.57
1:K:132:VAL:N	1:K:134:GLU:OE1	2.38	0.57
1:K:214:VAL:O	1:K:218:LEU:N	2.37	0.57
2:L:18(A):TRP:NE1	2:L:25:LEU:O	2.35	0.57
2:L:65:SER:HA	2:L:70:VAL:CA	2.35	0.57
2:L:312:ASP:OD2	2:L:315:TRP:HB3	2.04	0.57
2:L:315:TRP:O	2:L:318:SER:OG	2.22	0.57
1:Q:31:ASN:HA	1:Q:74:VAL:CG1	2.32	0.57
1:Q:114:LYS:O	1:Q:142:ASN:ND2	2.28	0.57
1:Q:358:CYS:HB2	1:I:190:HIS:CE1	2.39	0.57
2:R:205:PRO:HA	2:R:230:LEU:HD23	1.87	0.57
1:A:240:VAL:HG22	1:A:309:ALA:HB3	1.84	0.57
2:B:17:ARG:CZ	2:B:53:PHE:HA	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:28:VAL:O	2:B:72:LYS:N	2.27	0.57
1:C:240:VAL:N	1:C:309:ALA:O	2.32	0.57
2:D:67:ASP:OD1	2:D:67:ASP:N	2.35	0.57
1:E:41:THR:HG22	1:E:45:LYS:CG	2.34	0.57
1:E:253:GLU:OE1	1:E:253:GLU:N	2.23	0.57
1:G:272:ASP:O	1:G:291:THR:HA	2.04	0.57
2:H:186:ASP:OD2	2:H:197:ARG:NH1	2.38	0.57
2:J:30:ILE:N	2:J:72:LYS:O	2.38	0.57
1:K:49:ILE:O	1:K:284:ARG:NH2	2.37	0.57
2:L:30:ILE:HG22	2:L:31:ASN:H	1.68	0.57
1:O:316:GLY:O	1:O:320:ARG:HG2	2.04	0.57
1:Q:159:LYS:HZ1	1:Q:267:LEU:HD21	1.69	0.57
1:Q:248(A):VAL:O	1:Q:250:VAL:N	2.34	0.57
1:A:267:LEU:HB3	1:A:271:LEU:HG	1.86	0.57
1:E:59:ILE:HG22	1:E:64:PHE:HB3	1.86	0.57
1:E:190:HIS:CE1	1:K:360:LEU:H	2.23	0.57
1:E:313:ASN:HB2	3:E:401:NAD:H4N	1.86	0.57
1:E:318:SER:OG	1:E:319:GLN:OE1	2.23	0.57
2:F:165:PHE:O	2:F:247:SER:OG	2.22	0.57
2:F:271:LEU:HD12	2:F:290:SER:HB3	1.86	0.57
1:I:260:ARG:O	1:I:264:ALA:N	2.37	0.57
2:J:66:VAL:HB	2:J:69:LYS:HB3	1.86	0.57
1:K:320:ARG:CZ	1:K:320:ARG:HB2	2.33	0.57
2:L:78:ASN:HD22	2:L:81:ASN:CG	2.08	0.57
1:O:5:ILE:HG12	1:O:93:ILE:HB	1.87	0.57
1:O:11:ILE:HA	1:O:14:ASN:HD21	1.68	0.57
1:O:37:VAL:C	1:O:59:ILE:HG21	2.25	0.57
1:O:125:ILE:HG23	1:O:141:ALA:HB1	1.87	0.57
1:O:183:ARG:NH2	1:O:188:SER:O	2.38	0.57
2:P:170:GLY:HA2	2:P:244:VAL:HA	1.87	0.57
2:P:204:VAL:N	2:P:231:ARG:O	2.25	0.57
2:P:250:THR:HG1	2:P:254:GLU:CD	2.08	0.57
1:Q:1:LEU:O	1:Q:26:ASP:N	2.38	0.57
1:Q:57:VAL:HG13	1:Q:66:ILE:HG12	1.87	0.57
1:A:2:LYS:O	1:A:91:ILE:N	2.37	0.57
1:A:47:ASP:HA	2:D:197:ARG:HH12	1.69	0.57
2:B:38:LYS:N	2:B:38:LYS:HZ2	2.02	0.57
2:B:176:HIS:HB3	2:B:231:ARG:HA	1.85	0.57
1:C:105:ALA:HA	1:C:108:HIS:HD2	1.68	0.57
1:C:312:ASP:OD2	1:C:315:TRP:N	2.38	0.57
2:F:257:ALA:HA	2:F:260:ARG:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:0:LYS:NZ	1:G:22:ASP:O	2.37	0.57
1:G:91:ILE:HG22	1:G:117:ILE:HD11	1.86	0.57
1:I:283:PHE:CG	1:I:291:THR:HG21	2.40	0.57
2:J:319:GLN:O	2:J:323:ASP:N	2.25	0.57
2:L:105:ALA:HB1	2:L:116:VAL:HG11	1.85	0.57
2:P:183:ARG:HH22	2:P:191:ARG:HH12	1.52	0.57
2:P:278:LEU:O	2:R:194:ARG:NH2	2.33	0.57
1:Q:78:ASP:OD2	1:Q:81:LYS:N	2.37	0.57
2:R:28:VAL:HG22	2:R:69:LYS:HZ1	1.70	0.57
2:R:47:ASP:OD2	2:R:50:LEU:N	2.28	0.57
2:B:42:HIS:CG	1:C:193:LEU:HD21	2.40	0.57
2:B:242:LEU:HD11	2:B:244:VAL:HG13	1.86	0.57
1:C:66:ILE:HB	1:C:69:LYS:HB3	1.87	0.57
1:C:293:ASP:HB3	1:C:296:LEU:HB2	1.86	0.57
2:D:13:ARG:HB3	2:D:44:LEU:HD12	1.87	0.57
1:E:238:SER:HB2	1:E:311:TYR:CE1	2.40	0.57
1:G:273:VAL:HA	1:G:292:ILE:H	1.70	0.57
2:H:7:GLY:O	2:H:9:GLY:N	2.37	0.57
2:H:100:VAL:HG22	2:H:122(A):LYS:N	2.20	0.57
2:H:170:GLY:HA3	2:H:225:LEU:HD13	1.87	0.57
1:I:150:THR:O	1:I:154:LEU:HG	2.03	0.57
2:J:315:TRP:O	2:J:318:SER:OG	2.22	0.57
1:K:47:ASP:HB3	1:K:51:GLY:N	2.19	0.57
1:K:171:THR:O	1:K:243:VAL:N	2.38	0.57
2:L:176:HIS:O	2:L:232:VAL:N	2.30	0.57
1:Q:116:VAL:HB	1:Q:143:ILE:HA	1.86	0.57
1:Q:240:VAL:N	1:Q:309:ALA:O	2.37	0.57
2:R:15:PHE:O	2:R:18(A):TRP:N	2.18	0.57
2:R:30:ILE:O	2:R:73:VAL:HA	2.05	0.57
1:A:6:ASN:O	1:A:95:GLY:N	2.37	0.57
1:A:280:SER:HA	1:A:310:TRP:HZ3	1.70	0.57
1:E:78:ASP:OD2	1:E:81:LYS:N	2.37	0.57
1:E:274:CYS:N	1:E:292:ILE:O	2.36	0.57
2:F:272:SER:N	2:F:290:SER:O	2.36	0.57
1:G:60:ILE:HG22	1:G:60(A):ASP:H	1.70	0.57
2:J:28:VAL:HA	2:J:71:ILE:HG12	1.87	0.57
2:J:173:THR:N	2:J:241:ASP:OD1	2.37	0.57
1:A:274:CYS:O	1:A:293:ASP:HA	2.05	0.57
2:B:14:ASN:HD21	2:B:315:TRP:HA	1.70	0.57
1:C:8:PHE:HZ	1:C:44:LEU:HB2	1.70	0.57
1:C:63:THR:HA	1:C:72:LYS:HG2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:94:GLU:OE2	1:C:97:GLY:N	2.37	0.57
1:C:126:PRO:HD2	1:C:144:ILE:HG22	1.86	0.57
1:C:160:VAL:O	1:C:164:GLU:HG3	2.05	0.57
1:C:248(A):VAL:HG22	1:C:249:GLY:H	1.70	0.57
1:C:258:ALA:O	1:C:262:ALA:N	2.29	0.57
2:D:65:SER:CA	2:D:70:VAL:HA	2.34	0.57
2:D:315:TRP:O	2:D:318:SER:OG	2.23	0.57
2:F:146:ASN:HD22	2:F:321:VAL:HG13	1.70	0.57
2:F:281:ILE:HG23	2:F:282:ASP:OD1	2.05	0.57
1:G:0:LYS:HD3	1:G:24:PRO:HA	1.87	0.57
1:G:90:ASP:HA	1:G:114:LYS:HE2	1.87	0.57
1:G:289:SER:HB2	1:G:320:ARG:HD2	1.86	0.57
1:I:3:VAL:HG22	1:I:91:ILE:HB	1.87	0.57
1:I:150:THR:HG22	1:I:154:LEU:HD11	1.86	0.57
1:I:314:GLU:HG2	3:I:401:NAD:N7N	2.19	0.57
1:K:79:PRO:HB2	1:K:107:LYS:HZ2	1.69	0.57
1:K:121:PRO:O	1:K:122(A):LYS:NZ	2.30	0.57
2:L:45:LYS:HZ2	2:L:53:PHE:HB3	1.70	0.57
2:L:129:VAL:N	2:L:133:ASN:OD1	2.35	0.57
2:P:103:ASP:O	2:P:107:LYS:N	2.34	0.56
1:Q:76:ASN:OD1	1:Q:78:ASP:N	2.36	0.56
1:Q:201:LEU:HG	1:Q:202:ASN:HD22	1.70	0.56
2:R:242:LEU:HB3	2:R:307:VAL:HG22	1.86	0.56
1:C:40:ALA:HA	1:C:43:LEU:HB2	1.87	0.56
1:C:175:THR:OG1	1:C:239:VAL:N	2.36	0.56
2:D:6:ASN:N	2:D:93:ILE:O	2.38	0.56
1:E:7:GLY:HA3	1:E:96:THR:HG22	1.86	0.56
2:F:176:HIS:HD1	2:F:231:ARG:HB3	1.69	0.56
1:G:11:ILE:O	1:G:15:PHE:N	2.21	0.56
1:G:76:ASN:OD1	1:G:78:ASP:N	2.37	0.56
1:G:256:ASN:HA	1:G:259:PHE:CD2	2.40	0.56
1:I:40:ALA:O	1:I:44:LEU:N	2.24	0.56
1:K:226:ASN:OD1	1:K:227:GLY:N	2.32	0.56
2:L:0:LYS:H2	2:L:26:ASP:HB2	1.70	0.56
2:L:190:HIS:CE1	2:L:192:ASP:H	2.23	0.56
2:L:204:VAL:N	2:L:231:ARG:O	2.38	0.56
1:O:251:THR:HG23	1:O:254:ASP:H	1.69	0.56
2:P:131:GLY:HA3	2:P:156:PRO:HB3	1.87	0.56
2:P:184:LEU:HG	2:P:185:LEU:HD13	1.86	0.56
2:P:324:LEU:HD12	2:P:327:ILE:HB	1.87	0.56
1:Q:101:ASP:OD2	1:Q:104:GLY:N	2.32	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:316:GLY:O	1:Q:320:ARG:HG2	2.05	0.56
1:A:58:LYS:HB3	1:A:65:SER:HB3	1.87	0.56
1:A:82:LEU:HD13	1:A:84:TRP:CH2	2.40	0.56
2:B:91:LEU:HD21	2:B:93:ILE:HD11	1.87	0.56
2:B:315:TRP:O	2:B:318:SER:OG	2.22	0.56
2:D:119:THR:O	2:D:317:TYR:OH	2.10	0.56
2:D:176:HIS:HB3	2:D:231:ARG:HA	1.86	0.56
2:D:206:THR:HG23	2:D:229:ALA:HB3	1.87	0.56
1:E:244:VAL:N	1:E:305:VAL:HG22	2.16	0.56
1:E:357:GLU:O	1:K:191:ARG:N	2.35	0.56
2:F:104:GLY:HA2	2:F:107:LYS:HB2	1.87	0.56
2:H:10:ARG:CA	3:H:401:NAD:O1N	2.52	0.56
2:H:60:ALA:HB2	2:H:65:SER:HB3	1.86	0.56
2:H:131:GLY:O	2:H:159:LYS:NZ	2.38	0.56
1:I:77:ARG:HA	3:I:401:NAD:N1A	2.19	0.56
2:J:84:TRP:HB2	2:J:111:ALA:HB3	1.87	0.56
1:K:2:LYS:HG2	1:K:89:ILE:HA	1.87	0.56
1:K:124:ASP:OD1	1:K:124:ASP:N	2.37	0.56
1:O:128:TYR:HA	1:O:133:ASN:ND2	2.18	0.56
2:P:47:ASP:OD1	2:P:48:SER:N	2.38	0.56
2:P:128:TYR:HD1	2:P:133:ASN:HB2	1.70	0.56
1:Q:8:PHE:HB2	1:Q:32:ASP:CG	2.21	0.56
1:Q:18:CYS:O	1:Q:20:ARG:HG2	2.04	0.56
1:Q:94:GLU:HB3	1:Q:118:ILE:HG23	1.86	0.56
1:Q:194:ARG:NH2	1:Q:205:PRO:HD2	2.21	0.56
1:Q:326:ASP:HA	1:Q:329:ALA:HB3	1.88	0.56
2:R:45:LYS:O	2:R:52:THR:OG1	2.22	0.56
1:A:40:ALA:HA	1:A:43:LEU:HD12	1.87	0.56
1:A:150:THR:O	1:A:154:LEU:HG	2.05	0.56
1:A:281:VAL:H	1:C:202:ASN:CG	2.09	0.56
1:A:292:ILE:HG13	1:A:309:ALA:HA	1.87	0.56
2:B:139:HIS:CD2	2:B:333:GLN:H	2.22	0.56
2:B:275:ASP:OD1	2:B:294:SER:N	2.38	0.56
1:C:221:LEU:HA	1:C:224:LYS:HD3	1.87	0.56
1:C:303:ASP:OD1	1:C:304:MET:N	2.35	0.56
2:D:80:VAL:HA	2:D:111:ALA:HB2	1.88	0.56
2:D:255:VAL:O	2:D:259:PHE:N	2.34	0.56
1:E:296:LEU:HB3	1:E:308:VAL:HG11	1.85	0.56
2:F:9:GLY:O	2:F:12:GLY:N	2.35	0.56
2:F:250:THR:OG1	2:F:254:GLU:OE1	2.16	0.56
1:G:65:SER:OG	1:G:69:LYS:N	2.25	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:156:PRO:HB3	1:G:267:LEU:HG	1.87	0.56
1:G:157:PHE:O	1:G:160:VAL:N	2.38	0.56
1:G:168:VAL:HG23	1:G:247:GLU:N	2.21	0.56
1:G:241:ASP:HA	1:G:308:VAL:HA	1.86	0.56
2:H:89:ILE:N	2:H:112:GLY:O	2.38	0.56
2:H:157:PHE:HA	2:H:160:VAL:HB	1.88	0.56
2:H:206:THR:HG23	2:H:229:ALA:HB3	1.86	0.56
2:H:249:LYS:HA	2:H:302:ASP:HB3	1.88	0.56
1:I:134:GLU:HG2	1:I:135:LYS:HG3	1.88	0.56
1:K:57:VAL:HG12	1:K:64:PHE:HB2	1.87	0.56
1:K:82:LEU:HD13	1:K:84:TRP:CZ2	2.40	0.56
1:K:203:ILE:HG12	1:K:231:ARG:O	2.03	0.56
1:K:236:ASN:ND2	1:K:312:ASP:OD2	2.39	0.56
1:K:272:ASP:HB2	1:K:288:PHE:CG	2.40	0.56
2:L:13:ARG:HB3	2:L:44:LEU:HD12	1.85	0.56
2:L:119:THR:O	2:L:317:TYR:OH	2.12	0.56
1:O:121:PRO:HG3	1:O:148:SER:H	1.71	0.56
1:O:179:THR:N	1:O:182:GLN:OE1	2.23	0.56
2:R:312:ASP:OD1	2:R:315:TRP:N	2.26	0.56
2:B:85:GLY:N	2:B:111:ALA:O	2.39	0.56
1:C:17:ARG:NH1	1:C:51:GLY:O	2.34	0.56
2:D:64:ILE:N	2:D:71:ILE:O	2.39	0.56
2:D:115:LYS:HD3	2:D:142:THR:HA	1.87	0.56
2:D:139:HIS:NE2	2:D:334:UNK:O	2.38	0.56
2:D:148:SER:HB2	3:D:401:NAD:H5N	1.87	0.56
1:E:44:LEU:HD23	1:E:44:LEU:O	2.06	0.56
2:J:28:VAL:O	2:J:72:LYS:N	2.29	0.56
2:J:40:ALA:HA	2:J:43:LEU:HD12	1.88	0.56
2:J:169:LYS:O	2:J:245:GLN:N	2.39	0.56
2:J:176:HIS:N	2:J:230:LEU:O	2.36	0.56
2:J:273:VAL:HG23	2:J:292:ILE:HB	1.86	0.56
1:K:121:PRO:HG3	1:K:148:SER:N	2.21	0.56
1:K:126:PRO:HD2	1:K:144:ILE:HG22	1.86	0.56
1:K:150:THR:O	1:K:154:LEU:N	2.34	0.56
1:K:178:TYR:HD2	1:K:233:PRO:HA	1.71	0.56
2:L:175:THR:OG1	2:L:239:VAL:N	2.32	0.56
2:L:186:ASP:OD2	2:L:197:ARG:NE	2.38	0.56
1:Q:17:ARG:CZ	1:Q:53:PHE:HB2	2.36	0.56
2:B:6:ASN:O	2:B:95:GLY:N	2.30	0.56
2:B:173:THR:HG1	2:D:306:LYS:HZ3	1.49	0.56
1:C:117:ILE:HA	1:C:144:ILE:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:267:LEU:HB3	1:C:270:VAL:HB	1.86	0.56
2:D:176:HIS:NE2	3:D:401:NAD:O7N	2.37	0.56
1:E:41:THR:O	1:E:45:LYS:HG2	2.06	0.56
1:E:84:TRP:O	1:E:88:GLY:N	2.37	0.56
2:F:179:THR:H	2:F:182:GLN:CD	2.07	0.56
2:F:324:LEU:HD12	2:F:327:ILE:HB	1.87	0.56
1:G:178:TYR:CD2	1:G:233:PRO:HA	2.40	0.56
1:G:206:THR:OG1	1:G:207:SER:N	2.37	0.56
2:H:190:HIS:HB3	2:H:196:ALA:HB2	1.87	0.56
1:K:47:ASP:CG	1:K:50:LEU:H	2.09	0.56
1:K:137:TYR:CZ	1:K:328:VAL:HA	2.41	0.56
1:K:300:MET:N	1:K:304:MET:O	2.38	0.56
2:L:289:SER:OG	2:L:320:ARG:NH1	2.34	0.56
1:O:6:ASN:HD21	1:O:96:THR:HG23	1.70	0.56
1:O:291:THR:OG1	1:O:310:TRP:HB2	2.05	0.56
2:P:127:THR:O	2:P:133:ASN:ND2	2.37	0.56
2:P:172:MET:HB3	2:P:242:LEU:HB2	1.86	0.56
2:P:246:VAL:N	2:P:303:ASP:O	2.37	0.56
1:A:10:ARG:NH1	2:D:186:ASP:OD1	2.39	0.56
2:B:105:ALA:HB1	2:B:116:VAL:HG11	1.88	0.56
2:B:174:THR:HA	2:B:240:VAL:HA	1.87	0.56
1:C:28:VAL:HA	1:C:71:ILE:HG13	1.88	0.56
1:C:101:ASP:OD2	1:C:103:PRO:HB2	2.05	0.56
1:E:154:LEU:O	1:E:158:VAL:HG13	2.05	0.56
2:F:42:HIS:HA	2:F:46:TYR:CD2	2.41	0.56
2:H:30:ILE:O	2:H:73:VAL:HA	2.06	0.56
2:H:30:ILE:HB	2:H:73:VAL:HB	1.86	0.56
2:H:137:TYR:HE2	2:H:331:LYS:HG3	1.71	0.56
2:J:20:ARG:HG3	2:J:322:VAL:HG11	1.88	0.56
1:K:178:TYR:CD2	1:K:233:PRO:HA	2.41	0.56
1:K:303:ASP:OD1	1:K:304:MET:N	2.38	0.56
2:L:67:ASP:OD1	2:L:67:ASP:N	2.37	0.56
2:L:80:VAL:HA	2:L:111:ALA:HB2	1.88	0.56
2:P:165:PHE:O	2:P:247:SER:OG	2.23	0.56
2:P:181:ASP:OD1	2:P:195:ARG:NH1	2.39	0.56
1:Q:63:THR:HA	1:Q:72:LYS:HA	1.87	0.56
2:R:42:HIS:O	2:R:46:TYR:N	2.34	0.56
1:A:94:GLU:HG2	1:A:97:GLY:H	1.71	0.56
1:A:202:ASN:ND2	1:C:281:VAL:H	2.04	0.56
2:B:84:TRP:HB2	2:B:111:ALA:HB3	1.88	0.56
2:B:194:ARG:HD3	2:B:205:PRO:HD2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:172:MET:HA	2:D:242:LEU:HA	1.88	0.56
1:E:356:GLU:HA	1:K:183:ARG:HH22	1.71	0.56
2:F:120:ALA:O	2:F:145:SER:OG	2.19	0.56
1:G:96:THR:O	3:G:401:NAD:H8A	2.06	0.56
1:G:205:PRO:HG3	1:G:230:LEU:HA	1.86	0.56
2:H:85:GLY:N	2:H:111:ALA:O	2.38	0.56
2:H:326:ASP:O	2:H:330:ASN:N	2.35	0.56
1:I:11:ILE:HD13	3:I:401:NAD:N7N	2.21	0.56
2:L:9:GLY:O	2:L:12:GLY:N	2.32	0.56
2:L:157:PHE:O	2:L:161:LEU:N	2.24	0.56
2:L:168:ILE:N	2:L:245:GLN:O	2.39	0.56
1:O:149:CYS:HB3	1:O:317:TYR:HD1	1.71	0.56
2:P:40:ALA:HA	2:P:43:LEU:HD12	1.86	0.56
2:P:119:THR:O	2:P:317:TYR:OH	2.21	0.56
1:Q:212:LYS:O	1:Q:216:LEU:N	2.23	0.56
1:Q:214:VAL:O	1:Q:218:LEU:N	2.30	0.56
1:A:166:GLY:HA3	1:A:247:GLU:HB2	1.87	0.56
2:B:25:LEU:HD22	2:B:25:LEU:H	1.71	0.56
2:B:130:VAL:HG21	2:B:320:ARG:HG3	1.88	0.56
2:B:203:ILE:HD11	2:B:230:LEU:HB3	1.88	0.56
1:C:158:VAL:HA	1:C:161:LEU:HB3	1.87	0.56
1:C:172:MET:SD	1:C:173:THR:N	2.79	0.56
2:D:194:ARG:NH1	2:D:205:PRO:HD2	2.20	0.56
1:E:203:ILE:HD11	1:E:230:LEU:HD12	1.88	0.56
2:F:13:ARG:H	2:F:13:ARG:NH1	2.01	0.56
2:F:170:GLY:HA2	2:F:244:VAL:HA	1.87	0.56
2:H:4:ALA:HB3	2:H:84:TRP:CZ3	2.39	0.56
1:I:264:ALA:O	1:I:268:LYS:NZ	2.39	0.56
2:J:139:HIS:CD2	2:J:333:GLN:H	2.23	0.56
1:K:316:GLY:HA2	1:K:319:GLN:HG2	1.86	0.56
2:L:57:VAL:HA	2:L:66:VAL:HG13	1.87	0.56
2:L:148:SER:HB2	3:L:401:NAD:H5N	1.88	0.56
1:O:105:ALA:O	1:O:109:ILE:HG12	2.06	0.56
2:P:146:ASN:HD22	2:P:321:VAL:HG13	1.70	0.56
2:R:137:TYR:HE2	2:R:331:LYS:HG3	1.71	0.56
1:A:11:ILE:HB	3:A:401:NAD:H72N	1.70	0.56
2:B:6:ASN:HD22	2:B:108:HIS:HE1	1.54	0.56
2:B:30:ILE:O	2:B:73:VAL:HA	2.04	0.56
2:B:45:LYS:NZ	2:B:53:PHE:O	2.28	0.56
2:B:78:ASN:ND2	2:B:80:VAL:HG22	2.20	0.56
2:B:149:CYS:SG	2:B:150:THR:N	2.79	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:329:ALA:O	1:C:332:TRP:HB2	2.06	0.56
2:D:193:LEU:HD12	2:D:193:LEU:H	1.71	0.56
1:E:179:THR:OG1	1:E:181:ASP:N	2.39	0.56
2:F:177:SER:OG	2:F:178:TYR:N	2.38	0.56
2:H:103:ASP:HB2	2:H:107:LYS:HZ3	1.71	0.56
2:H:105:ALA:HB1	2:H:116:VAL:HG21	1.88	0.56
1:I:34:GLY:O	1:I:38:LYS:NZ	2.39	0.56
1:I:60:ILE:HB	1:I:64:PHE:HA	1.88	0.56
2:J:78:ASN:HD21	2:J:80:VAL:HG22	1.70	0.56
2:J:173:THR:OG1	2:L:306:LYS:NZ	2.26	0.56
1:K:128:TYR:HA	1:K:133:ASN:ND2	2.20	0.56
1:K:164:GLU:HG3	1:K:165:LEU:HD13	1.88	0.56
1:K:186:ASP:OD1	1:K:197:ARG:NE	2.38	0.56
1:K:240:VAL:O	1:K:309:ALA:N	2.38	0.56
2:L:318:SER:HA	2:L:321:VAL:HB	1.86	0.56
1:O:13:ARG:CG	1:O:44:LEU:HD13	2.35	0.56
1:O:37:VAL:HG21	1:O:61:ASN:HA	1.87	0.56
1:O:255:VAL:O	1:O:259:PHE:N	2.30	0.56
2:P:258:ALA:O	2:P:262:SER:OG	2.17	0.56
2:R:94:GLU:HG3	2:R:99:PHE:CD2	2.41	0.56
2:R:181:ASP:OD2	2:R:195:ARG:NE	2.39	0.56
2:B:0:LYS:NZ	2:B:329:ALA:HA	2.21	0.56
1:C:291:THR:HB	1:C:310:TRP:HB2	1.87	0.56
1:E:85:ALA:HB2	1:E:112:GLY:HA3	1.88	0.56
2:H:28:VAL:HG22	2:H:69:LYS:HZ1	1.70	0.56
2:H:193:LEU:O	2:H:197:ARG:N	2.38	0.56
1:I:293:ASP:O	1:I:296:LEU:HB2	2.06	0.56
1:O:191:ARG:N	2:R:39:GLN:OE1	2.40	0.55
1:Q:92:VAL:HB	1:Q:117:ILE:H	1.69	0.55
2:R:58:LYS:O	2:R:65:SER:HB3	2.06	0.55
2:R:179:THR:H	2:R:182:GLN:NE2	2.03	0.55
1:C:4:ALA:HB3	1:C:92:VAL:HG22	1.88	0.55
1:C:28:VAL:C	1:C:71:ILE:HG23	2.26	0.55
1:C:346:GLU:HA	1:C:349:CYS:HB3	1.87	0.55
2:D:236:ASN:O	2:D:313:ASN:ND2	2.30	0.55
1:E:257:ASN:O	1:E:261:LYS:NZ	2.33	0.55
1:E:272:ASP:OD1	1:E:273:VAL:N	2.39	0.55
2:F:250:THR:HG1	2:F:254:GLU:CD	2.08	0.55
2:H:186:ASP:HB3	2:H:198:ALA:H	1.70	0.55
1:I:240:VAL:HG22	1:I:309:ALA:HB3	1.88	0.55
2:J:0:LYS:NZ	2:J:329:ALA:HA	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:15:PHE:CZ	2:J:322:VAL:HA	2.41	0.55
2:J:25:LEU:HD22	2:J:25:LEU:H	1.71	0.55
2:J:85:GLY:N	2:J:111:ALA:O	2.39	0.55
1:O:60:ILE:O	1:O:63:THR:N	2.40	0.55
2:P:162:ASP:OD1	2:P:167:ILE:N	2.30	0.55
1:Q:148:SER:O	1:Q:151:THR:OG1	2.10	0.55
1:Q:160:VAL:O	1:Q:163:GLU:HG2	2.06	0.55
2:B:191:ARG:NH1	2:B:191:ARG:H	2.04	0.55
1:C:100:VAL:HB	1:C:122(A):LYS:H	1.71	0.55
1:C:172:MET:HA	1:C:242:LEU:HA	1.87	0.55
2:D:211:ALA:HB1	2:D:227:GLY:H	1.71	0.55
2:D:271:LEU:HD21	2:D:290:SER:HB3	1.86	0.55
1:E:90:ASP:HA	1:E:114:LYS:HZ3	1.70	0.55
1:E:92:VAL:N	1:E:116:VAL:HG22	2.21	0.55
2:F:246:VAL:N	2:F:303:ASP:O	2.36	0.55
2:F:278:LEU:HD23	2:F:282:ASP:HB3	1.88	0.55
1:I:141:ALA:O	1:I:144:ILE:HG23	2.06	0.55
1:I:239:VAL:HB	1:I:310:TRP:CE2	2.41	0.55
1:I:283:PHE:O	1:I:286:SER:OG	2.09	0.55
2:J:147:ALA:O	2:J:317:TYR:OH	2.14	0.55
1:K:291:THR:O	1:K:310:TRP:N	2.26	0.55
2:L:32:ASP:OD2	3:L:401:NAD:O3B	2.19	0.55
2:L:166:GLY:O	2:L:247:SER:N	2.28	0.55
3:O:401:NAD:H2N	3:O:401:NAD:O1N	2.05	0.55
2:P:147:ALA:O	2:P:317:TYR:OH	2.25	0.55
1:Q:211:ALA:HB3	1:Q:212:LYS:HZ1	1.71	0.55
2:B:267:LEU:HB3	2:B:271:LEU:H	1.71	0.55
1:C:58:LYS:NZ	1:C:59:ILE:O	2.39	0.55
1:C:96:THR:HG22	3:C:401:NAD:C4A	2.35	0.55
1:C:183:ARG:HG2	1:C:187:ALA:N	2.21	0.55
2:D:138:THR:HA	2:D:331:LYS:NZ	2.22	0.55
2:F:148:SER:O	2:F:152:ASN:N	2.30	0.55
1:G:10:ARG:N	3:G:401:NAD:O2N	2.39	0.55
2:H:11:ILE:O	2:H:15:PHE:N	2.31	0.55
1:O:213:ALA:O	1:O:216:LEU:HB2	2.06	0.55
2:P:45:LYS:NZ	2:P:55:ALA:O	2.31	0.55
2:P:157:PHE:O	2:P:161:LEU:N	2.28	0.55
2:P:177:SER:OG	2:P:178:TYR:N	2.40	0.55
2:R:100:VAL:HG22	2:R:122(A):LYS:N	2.20	0.55
2:R:206:THR:HG23	2:R:229:ALA:HB3	1.87	0.55
2:B:263:ALA:HA	2:B:267:LEU:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:278:LEU:O	2:D:194:ARG:NH1	2.31	0.55
1:C:21:LYS:HZ2	1:C:22:ASP:H	1.54	0.55
2:F:190:HIS:HD2	2:F:191:ARG:NH2	2.05	0.55
2:F:218:LEU:O	2:F:222:LYS:NZ	2.30	0.55
1:G:45:LYS:HE2	1:G:56:ASP:HA	1.88	0.55
1:I:90:ASP:HA	1:I:114:LYS:HE2	1.89	0.55
2:J:202:ASN:ND2	2:L:281:ILE:HG22	2.22	0.55
1:O:169:LYS:HE2	1:Q:301:GLY:HA3	1.88	0.55
1:Q:178:TYR:CD2	1:Q:233:PRO:HA	2.42	0.55
2:R:17:ARG:CZ	2:R:53:PHE:HA	2.36	0.55
1:A:12:GLY:O	1:A:16:LEU:N	2.29	0.55
1:A:104:GLY:HA2	1:A:107:LYS:HD2	1.89	0.55
1:A:221:LEU:HD22	1:A:224:LYS:HE2	1.88	0.55
1:A:256:ASN:ND2	1:A:257:ASN:OD1	2.40	0.55
1:A:358:CYS:O	1:G:191:ARG:NH2	2.39	0.55
2:B:165:PHE:HE2	2:B:250:THR:HB	1.70	0.55
2:B:192:ASP:HB3	2:B:195:ARG:HB2	1.89	0.55
2:B:206:THR:OG1	2:B:207:SER:N	2.40	0.55
1:C:186:ASP:HB3	1:C:197:ARG:HA	1.88	0.55
1:C:243:VAL:HA	1:C:306:LYS:HA	1.87	0.55
1:E:240:VAL:N	1:E:309:ALA:O	2.24	0.55
2:F:6:ASN:HB2	2:F:84:TRP:HH2	1.71	0.55
2:F:205:PRO:HA	2:F:230:LEU:HD23	1.88	0.55
2:F:267:LEU:HB3	2:F:271:LEU:HB2	1.88	0.55
1:G:11:ILE:H	3:G:401:NAD:PN	2.30	0.55
2:H:47:ASP:OD2	2:H:50:LEU:N	2.19	0.55
2:H:94:GLU:HG3	2:H:99:PHE:CD2	2.42	0.55
2:H:237:VAL:HG22	2:H:312:ASP:HA	1.88	0.55
1:I:191:ARG:NE	1:I:192:ASP:H	2.03	0.55
1:I:257:ASN:HA	1:I:260:ARG:HB2	1.88	0.55
1:I:282:ASP:OD2	1:K:197:ARG:NH2	2.40	0.55
1:I:299:VAL:HG13	1:I:305:VAL:HG12	1.88	0.55
2:J:174:THR:HA	2:J:240:VAL:HA	1.88	0.55
2:J:250:THR:N	2:J:302:ASP:HB3	2.16	0.55
1:K:150:THR:OG1	1:K:151:THR:N	2.40	0.55
2:L:179:THR:N	2:L:182:GLN:OE1	2.35	0.55
2:L:211:ALA:HB1	2:L:227:GLY:H	1.72	0.55
1:O:6:ASN:N	1:O:93:ILE:O	2.39	0.55
2:P:190:HIS:HD2	2:P:191:ARG:NH2	2.05	0.55
1:Q:0:LYS:NZ	1:Q:22:ASP:O	2.40	0.55
1:Q:11:ILE:N	3:Q:401:NAD:O2N	2.33	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:124:ASP:HB3	1:I:216:LEU:HD11	1.89	0.55
1:C:4:ALA:HA	1:C:27:VAL:HG23	1.87	0.55
1:C:101:ASP:CG	1:C:104:GLY:H	2.10	0.55
1:C:255:VAL:O	1:C:259:PHE:N	2.37	0.55
2:D:94:GLU:OE2	2:D:99:PHE:N	2.27	0.55
1:G:132:VAL:HG22	1:G:159:LYS:HD3	1.87	0.55
1:G:220:GLN:H	1:G:220:GLN:CD	2.05	0.55
2:H:40:ALA:O	2:H:44:LEU:N	2.31	0.55
2:H:222:LYS:H	2:H:224:LYS:NZ	2.04	0.55
1:I:21:LYS:NZ	1:I:22:ASP:OD1	2.39	0.55
2:J:182:GLN:N	2:J:182:GLN:HE21	2.05	0.55
2:L:47:ASP:N	2:L:51:GLY:O	2.40	0.55
1:O:72:LYS:HB3	1:O:72:LYS:HZ3	1.72	0.55
1:O:253:GLU:OE2	1:O:260:ARG:NH1	2.36	0.55
2:P:160:VAL:O	2:P:164:LYS:N	2.34	0.55
2:P:179:THR:H	2:P:182:GLN:CD	2.09	0.55
2:R:192:ASP:CG	2:R:195:ARG:H	2.10	0.55
1:A:29:VAL:HG21	1:A:87:LEU:HD13	1.87	0.55
1:A:29:VAL:HG22	1:A:72:LYS:HB2	1.89	0.55
1:A:242:LEU:O	1:A:307:VAL:N	2.34	0.55
2:B:19:GLY:O	2:B:21:LYS:NZ	2.39	0.55
2:B:176:HIS:N	2:B:230:LEU:O	2.38	0.55
1:C:91:ILE:HD13	1:C:328:VAL:HG11	1.88	0.55
1:C:133:ASN:HA	1:C:136:ASP:CG	2.27	0.55
2:D:206:THR:OG1	2:D:207:SER:N	2.39	0.55
1:E:252:ALA:O	1:E:256:ASN:N	2.32	0.55
2:F:211:ALA:O	2:F:226:ASN:ND2	2.40	0.55
2:F:263:ALA:HA	2:F:267:LEU:HB2	1.88	0.55
2:F:281:ILE:H	2:H:202:ASN:ND2	2.04	0.55
1:G:237:VAL:HG23	1:G:280:SER:HB3	1.88	0.55
2:H:10:ARG:CG	3:H:401:NAD:O1N	2.54	0.55
1:I:128:TYR:N	1:I:145:SER:O	2.39	0.55
2:J:192:ASP:O	2:J:196:ALA:N	2.34	0.55
2:J:279:VAL:O	2:J:283:PHE:HD1	1.89	0.55
1:K:90:ASP:N	1:K:90:ASP:OD1	2.39	0.55
1:K:279:VAL:H	1:K:282:ASP:CG	2.10	0.55
2:L:148:SER:O	2:L:152:ASN:N	2.25	0.55
2:L:160:VAL:O	2:L:164:LYS:N	2.40	0.55
1:O:16:LEU:O	1:O:18(B):HIS:N	2.30	0.55
1:O:43:LEU:HD22	2:R:186:ASP:HB2	1.88	0.55
1:O:184:LEU:HG	1:O:185:LEU:HG	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:79:PRO:HA	1:Q:82:LEU:HG	1.87	0.55
1:Q:80:LEU:HG	1:Q:107:LYS:HD2	1.88	0.55
1:Q:106:GLY:O	1:Q:110:GLN:NE2	2.40	0.55
2:R:30:ILE:HB	2:R:73:VAL:HB	1.87	0.55
2:R:222:LYS:H	2:R:224:LYS:NZ	2.04	0.55
1:A:15:PHE:O	1:A:18(A):TRP:N	2.28	0.55
1:A:244:VAL:HB	1:A:305:VAL:HG22	1.89	0.55
2:B:60:ALA:H	2:B:64:ILE:HA	1.71	0.55
2:B:106:GLY:O	2:B:110:GLN:N	2.25	0.55
1:E:92:VAL:HG12	1:E:93:ILE:H	1.71	0.55
2:F:193:LEU:HD22	2:H:277:PRO:HG2	1.89	0.55
1:G:39:SER:HA	1:G:42:HIS:HD2	1.72	0.55
2:H:149:CYS:HB3	2:H:317:TYR:CG	2.42	0.55
2:J:94:GLU:OE2	2:J:96:THR:OG1	2.18	0.55
1:K:160:VAL:O	1:K:164:GLU:N	2.22	0.55
1:K:172:MET:HB2	1:K:242:LEU:HB2	1.89	0.55
2:L:174:THR:O	2:L:230:LEU:HB2	2.06	0.55
1:O:15:PHE:O	1:O:18(A):TRP:N	2.40	0.55
1:O:160:VAL:HG11	1:O:262:ALA:HB2	1.88	0.55
2:P:30:ILE:O	2:P:73:VAL:HA	2.07	0.55
2:P:202:ASN:HD21	2:R:281:ILE:H	1.53	0.55
1:Q:14:ASN:HA	1:Q:17:ARG:HB2	1.89	0.55
1:Q:115:LYS:HA	1:Q:142:ASN:HB3	1.89	0.55
1:A:2:LYS:N	1:A:90:ASP:OD2	2.33	0.55
1:C:91:ILE:HG12	1:C:115:LYS:H	1.71	0.55
1:C:101:ASP:OD2	1:C:104:GLY:N	2.38	0.55
1:E:23:SER:C	1:E:25:LEU:H	2.09	0.55
2:F:119:THR:O	2:F:317:TYR:OH	2.20	0.55
2:F:293:ASP:OD1	2:F:296:LEU:N	2.30	0.55
1:G:256:ASN:O	1:G:260:ARG:NE	2.34	0.55
1:G:292:ILE:HG13	1:G:309:ALA:HA	1.87	0.55
2:H:47:ASP:OD1	2:H:49:ILE:N	2.38	0.55
2:H:179:THR:H	2:H:182:GLN:NE2	2.05	0.55
2:H:256:ASN:O	2:H:260:ARG:N	2.33	0.55
1:I:178:TYR:CD2	1:I:233:PRO:HA	2.41	0.55
2:J:149:CYS:HA	2:J:152:ASN:HB3	1.88	0.55
2:J:250:THR:OG1	2:J:251:PHE:N	2.39	0.55
1:K:13:ARG:HA	1:K:16:LEU:HB2	1.87	0.55
1:O:47:ASP:OD1	1:O:48:SER:N	2.40	0.55
1:O:79:PRO:HB3	1:O:108:HIS:CE1	2.42	0.55
1:O:84:TRP:O	1:O:88:GLY:N	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:120:ALA:N	1:Q:146:ASN:O	2.40	0.55
1:Q:156:PRO:O	1:Q:160:VAL:N	2.39	0.55
2:R:62:SER:HA	2:R:73:VAL:O	2.07	0.55
2:R:224:LYS:HG3	2:R:225:LEU:HD23	1.89	0.55
1:A:38:LYS:HA	1:A:41:THR:HB	1.88	0.55
1:A:137:TYR:HD2	1:A:331:LYS:HZ3	1.54	0.55
1:A:156:PRO:HB2	1:A:271:LEU:HD11	1.88	0.55
1:A:242:LEU:N	1:A:307:VAL:O	2.32	0.55
1:A:272:ASP:N	1:A:290:SER:O	2.40	0.55
1:C:270:VAL:HG13	1:C:320:ARG:HD2	1.88	0.55
2:D:38:LYS:O	2:D:41:SER:OG	2.08	0.55
2:F:116:VAL:N	2:F:142:THR:O	2.25	0.55
1:G:10:ARG:NE	1:G:14:ASN:OD1	2.28	0.55
1:I:79:PRO:HB3	1:I:108:HIS:CE1	2.42	0.55
1:I:278:LEU:HB2	1:I:283:PHE:CE1	2.42	0.55
2:J:1:LEU:N	2:J:24:PRO:O	2.35	0.55
2:J:194:ARG:HD3	2:J:205:PRO:HD2	1.88	0.55
2:J:293:ASP:OD2	2:J:295:SER:OG	2.25	0.55
1:O:160:VAL:O	1:O:163:GLU:HG2	2.07	0.54
1:O:190:HIS:CD2	1:O:195:ARG:HB2	2.42	0.54
1:O:291:THR:HG1	1:O:310:TRP:HB2	1.71	0.54
1:O:358:CYS:HA	1:C:190:HIS:ND1	2.23	0.54
1:Q:215:SER:HB3	1:Q:222:LYS:HA	1.89	0.54
1:Q:249:GLY:HA3	1:Q:302:GLY:HA3	1.88	0.54
2:R:76:ASP:OD1	2:R:78:ASN:N	2.39	0.54
1:C:238:SER:HB3	1:C:311:TYR:CZ	2.42	0.54
2:D:168:ILE:N	2:D:245:GLN:O	2.40	0.54
1:E:55:ALA:HB1	1:E:67:ASP:OD2	2.06	0.54
1:E:242:LEU:N	1:E:307:VAL:O	2.29	0.54
1:E:280:SER:OG	1:G:203:ILE:N	2.40	0.54
2:F:127:THR:O	2:F:133:ASN:ND2	2.41	0.54
2:H:15:PHE:HA	2:H:18:CYS:HB2	1.89	0.54
2:J:36:GLY:HA3	2:J:38:LYS:HZ1	1.72	0.54
2:J:197:ARG:HH21	1:K:48:SER:HB3	1.72	0.54
1:K:47:ASP:CG	1:K:49:ILE:H	2.11	0.54
2:L:64:ILE:N	2:L:71:ILE:O	2.40	0.54
2:P:64:ILE:N	2:P:71:ILE:O	2.39	0.54
2:R:249:LYS:HA	2:R:302:ASP:HB3	1.89	0.54
2:B:15:PHE:CZ	2:B:322:VAL:HA	2.42	0.54
2:D:54:ASP:OD1	2:D:54:ASP:N	2.28	0.54
2:D:302:ASP:OD1	2:D:302:ASP:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:46:TYR:HA	1:E:52:THR:HA	1.89	0.54
1:E:176:HIS:N	1:E:230:LEU:O	2.39	0.54
2:F:20:ARG:HA	2:F:21:LYS:HZ3	1.72	0.54
2:F:59:THR:HB	2:F:64:ILE:HG23	1.89	0.54
1:G:57:VAL:HA	1:G:66:ILE:HG23	1.89	0.54
1:G:151:THR:OG1	1:G:152:ASN:N	2.39	0.54
1:G:293:ASP:CG	1:G:295:SER:HG	2.10	0.54
1:I:179:THR:H	1:I:182:GLN:NE2	2.05	0.54
2:J:105:ALA:HB1	2:J:116:VAL:HG11	1.89	0.54
1:K:32:ASP:OD1	1:K:77:ARG:NH1	2.40	0.54
1:K:236:ASN:HA	1:K:313:ASN:HD21	1.71	0.54
1:K:256:ASN:OD1	1:K:257:ASN:ND2	2.41	0.54
2:L:302:ASP:OD1	2:L:302:ASP:N	2.41	0.54
1:O:190:HIS:N	2:R:39:GLN:OE1	2.40	0.54
2:P:17:ARG:HG2	2:P:53:PHE:CE2	2.42	0.54
1:Q:6:ASN:ND2	1:Q:96:THR:H	2.05	0.54
2:R:172:MET:HA	2:R:242:LEU:HA	1.89	0.54
2:R:276:GLU:OE1	2:R:276:GLU:N	2.33	0.54
1:C:32:ASP:OD2	3:C:401:NAD:O2B	2.26	0.54
1:E:37:VAL:HG12	1:E:59:ILE:CB	2.36	0.54
2:F:184:LEU:HG	2:F:185:LEU:HD13	1.87	0.54
1:G:168:VAL:O	1:G:224:LYS:NZ	2.28	0.54
2:H:17:ARG:CZ	2:H:53:PHE:HA	2.37	0.54
2:H:41:SER:HG	2:H:42:HIS:H	1.54	0.54
2:H:203:ILE:HG23	2:H:205:PRO:HD3	1.87	0.54
1:I:76:ASN:OD1	1:I:77:ARG:N	2.40	0.54
2:J:118:ILE:O	2:J:145:SER:OG	2.22	0.54
1:K:211:ALA:HB1	1:K:225:LEU:HG	1.89	0.54
1:K:345:LEU:O	1:K:348:PHE:N	2.39	0.54
2:L:138:THR:HA	2:L:331:LYS:NZ	2.23	0.54
2:L:204:VAL:O	2:L:230:LEU:HA	2.07	0.54
2:L:237:VAL:HG22	2:L:312:ASP:HA	1.88	0.54
1:O:281:VAL:O	1:O:284:ARG:NE	2.41	0.54
1:Q:182:GLN:NE2	1:Q:183:ARG:O	2.35	0.54
2:R:83:PRO:HB2	2:R:86:ASP:HB2	1.88	0.54
1:A:79:PRO:HB3	1:A:108:HIS:CE1	2.42	0.54
1:A:169:LYS:HG3	1:C:301:GLY:HA3	1.88	0.54
2:B:7:GLY:O	2:B:9:GLY:N	2.38	0.54
2:B:37:VAL:HG23	2:B:38:LYS:H	1.72	0.54
2:B:148:SER:O	2:B:152:ASN:N	2.21	0.54
1:C:148:SER:HG	1:C:151:THR:H	1.52	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:178:TYR:CD2	1:C:233:PRO:HA	2.43	0.54
1:C:256:ASN:HB2	1:C:260:ARG:HH21	1.71	0.54
2:D:5:ILE:HG23	2:D:93:ILE:HB	1.89	0.54
2:F:5:ILE:HB	2:F:30:ILE:HG23	1.88	0.54
2:F:85:GLY:N	2:F:112:GLY:HA3	2.23	0.54
2:F:139:HIS:CD2	2:F:333:GLN:HB2	2.42	0.54
2:F:147:ALA:O	2:F:317:TYR:OH	2.25	0.54
2:F:172:MET:HB3	2:F:242:LEU:HB2	1.87	0.54
1:G:116:VAL:HG21	1:G:143:ILE:HA	1.90	0.54
1:I:203:ILE:HD11	1:I:230:LEU:HB3	1.89	0.54
2:J:236:ASN:OD1	2:J:284:ARG:NH1	2.40	0.54
1:O:6:ASN:O	1:O:95:GLY:N	2.40	0.54
1:O:256:ASN:HD22	1:O:260:ARG:NH1	2.06	0.54
1:O:271:LEU:HB2	1:O:290:SER:HB2	1.88	0.54
1:O:278:LEU:O	1:Q:194:ARG:NH1	2.27	0.54
2:P:85:GLY:N	2:P:112:GLY:HA3	2.22	0.54
2:P:320:ARG:NE	2:P:323:ASP:OD2	2.37	0.54
2:R:137:TYR:O	2:R:331:LYS:NZ	2.31	0.54
1:A:29:VAL:HA	1:A:72:LYS:O	2.06	0.54
1:A:178:TYR:HD2	1:A:233:PRO:HA	1.72	0.54
1:A:203:ILE:HG23	1:A:205:PRO:HD3	1.89	0.54
1:A:257:ASN:O	1:A:261:LYS:N	2.28	0.54
1:A:323:ASP:OD1	1:A:323:ASP:N	2.40	0.54
1:C:291:THR:O	1:C:310:TRP:N	2.24	0.54
2:D:14:ASN:OD1	2:D:315:TRP:HA	2.07	0.54
1:E:57:VAL:HG22	1:E:66:ILE:HG12	1.88	0.54
1:G:134:GLU:H	1:G:135:LYS:HZ1	1.56	0.54
1:G:176:HIS:HB3	1:G:231:ARG:HA	1.88	0.54
1:G:213:ALA:HA	1:G:216:LEU:HB2	1.89	0.54
2:H:177:SER:OG	2:H:234:THR:O	2.18	0.54
2:H:332:TRP:NE1	2:H:334:UNK:OXT	2.41	0.54
2:J:42:HIS:O	2:J:46:TYR:N	2.37	0.54
2:J:202:ASN:HD22	2:L:279:VAL:HB	1.72	0.54
1:K:79:PRO:HB3	1:K:108:HIS:CD2	2.43	0.54
2:L:255:VAL:HB	2:L:259:PHE:CZ	2.42	0.54
1:O:255:VAL:HG23	1:O:256:ASN:H	1.72	0.54
1:Q:176:HIS:O	1:Q:232:VAL:N	2.41	0.54
2:R:90:ASP:OD1	2:R:90:ASP:N	2.40	0.54
2:R:96:THR:HG22	3:R:401:NAD:C4A	2.37	0.54
2:R:99:PHE:CD1	2:R:104:GLY:HA3	2.43	0.54
2:R:127:THR:HG21	2:R:216:LEU:HB3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:131:GLY:O	2:R:159:LYS:NZ	2.38	0.54
2:R:218:LEU:HD13	2:R:221:LEU:HD22	1.89	0.54
2:R:296:LEU:HB2	2:R:308:ILE:HG13	1.89	0.54
1:A:261:LYS:O	1:A:265:GLY:N	2.40	0.54
1:C:241:ASP:OD2	1:C:306:LYS:HG2	2.08	0.54
1:C:246:ILE:HG22	1:C:248:LYS:HB2	1.88	0.54
2:D:57:VAL:HA	2:D:66:VAL:HG13	1.90	0.54
2:D:160:VAL:O	2:D:164:LYS:N	2.41	0.54
3:E:401:NAD:O1N	3:E:401:NAD:H2N	2.06	0.54
2:F:17:ARG:HG2	2:F:53:PHE:CE2	2.43	0.54
1:G:295:SER:OG	1:G:296:LEU:N	2.40	0.54
2:H:47:ASP:OD1	2:H:48:SER:N	2.41	0.54
2:H:62:SER:HA	2:H:73:VAL:O	2.07	0.54
2:H:90:ASP:OD1	2:H:90:ASP:N	2.39	0.54
2:H:138:THR:OG1	2:H:141:ASP:OD1	2.14	0.54
2:H:203:ILE:HD11	2:H:230:LEU:HD13	1.90	0.54
1:I:45:LYS:O	1:I:53:PHE:N	2.41	0.54
1:I:101:ASP:H	1:I:122(A):LYS:HZ2	1.55	0.54
2:J:149:CYS:SG	2:J:150:THR:N	2.80	0.54
1:K:9:GLY:O	1:K:12:GLY:N	2.34	0.54
1:K:17:ARG:O	1:K:19:GLY:N	2.34	0.54
1:K:328:VAL:O	1:K:332:TRP:N	2.40	0.54
2:L:42:HIS:HD2	2:L:46:TYR:HE2	1.56	0.54
2:P:211:ALA:O	2:P:226:ASN:ND2	2.39	0.54
2:P:236:ASN:ND2	2:P:237:VAL:H	2.06	0.54
2:P:263:ALA:HA	2:P:267:LEU:HB2	1.90	0.54
1:Q:330:ASN:OD1	1:Q:331:LYS:N	2.38	0.54
2:R:105:ALA:HB1	2:R:116:VAL:HG21	1.90	0.54
2:R:237:VAL:HG22	2:R:312:ASP:HA	1.90	0.54
1:A:28:VAL:O	1:A:72:LYS:N	2.41	0.54
2:B:149:CYS:HA	2:B:152:ASN:HB3	1.88	0.54
1:C:148:SER:OG	1:C:150:THR:OG1	2.14	0.54
1:C:318:SER:HA	1:C:321:VAL:HG22	1.89	0.54
2:D:64:ILE:H	2:D:71:ILE:H	1.56	0.54
1:E:235:PRO:HG2	1:E:284:ARG:NH2	2.23	0.54
2:F:302:ASP:OD1	2:F:302:ASP:N	2.40	0.54
1:G:132:VAL:O	1:G:135:LYS:NZ	2.28	0.54
2:H:218:LEU:HD13	2:H:221:LEU:HD22	1.90	0.54
2:H:244:VAL:O	2:H:305:VAL:N	2.39	0.54
2:H:272:SER:O	2:H:292:ILE:HG12	2.07	0.54
2:J:13:ARG:HB3	2:J:44:LEU:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:45:LYS:HB3	1:K:46:TYR:CE2	2.42	0.54
2:P:65:SER:HA	2:P:70:VAL:HA	1.90	0.54
2:P:84:TRP:CD1	2:P:111:ALA:HB3	2.43	0.54
2:P:317:TYR:O	2:P:321:VAL:HG23	2.08	0.54
2:R:149:CYS:HB3	2:R:317:TYR:CG	2.43	0.54
2:R:272:SER:O	2:R:292:ILE:HG12	2.07	0.54
1:A:49:ILE:HA	1:A:284:ARG:CZ	2.38	0.54
1:A:133:ASN:O	1:A:137:TYR:N	2.41	0.54
1:A:157:PHE:O	1:A:161:LEU:N	2.39	0.54
1:C:12:GLY:O	1:C:16:LEU:HG	2.07	0.54
1:C:165:LEU:HG	1:C:246:ILE:HG21	1.88	0.54
2:D:78:ASN:ND2	2:D:81:ASN:OD1	2.35	0.54
2:D:90:ASP:OD1	2:D:114:LYS:NZ	2.28	0.54
1:E:169:LYS:HB2	1:G:304:MET:SD	2.48	0.54
1:E:279:VAL:HG21	1:G:197:ARG:HH21	1.73	0.54
2:F:2:LYS:O	2:F:90:ASP:N	2.26	0.54
2:F:78:ASN:O	2:F:82:LEU:HG	2.08	0.54
2:J:193:LEU:HD13	2:L:277:PRO:HG3	1.88	0.54
2:L:14:ASN:OD1	2:L:315:TRP:HA	2.08	0.54
1:Q:58:LYS:HD3	1:Q:59:ILE:H	1.73	0.54
2:R:87:MET:N	2:R:87:MET:SD	2.81	0.54
2:R:105:ALA:O	2:R:109:LEU:N	2.38	0.54
1:A:213:ALA:O	1:A:216:LEU:HB2	2.08	0.54
1:C:94:GLU:CD	1:C:97:GLY:H	2.10	0.54
1:E:30:VAL:H	1:E:73:VAL:HA	1.72	0.54
1:E:132:VAL:HG13	1:E:156:PRO:HA	1.89	0.54
1:E:175:THR:O	1:E:238:SER:HA	2.08	0.54
1:E:194:ARG:HH21	1:G:277:PRO:HA	1.72	0.54
1:E:220:GLN:HB3	1:E:221:LEU:HD22	1.89	0.54
1:G:157:PHE:O	1:G:161:LEU:HG	2.08	0.54
2:H:191:ARG:H	2:H:191:ARG:NH1	2.05	0.54
1:I:11:ILE:O	1:I:15:PHE:N	2.28	0.54
1:O:299:VAL:HG22	1:O:305:VAL:HG12	1.90	0.54
2:R:56:ASP:HB3	2:R:67:ASP:H	1.73	0.54
2:R:138:THR:OG1	2:R:141:ASP:OD1	2.14	0.54
2:R:332:TRP:NE1	2:R:334:UNK:OXT	2.40	0.54
1:A:76:ASN:OD1	1:A:78:ASP:N	2.40	0.54
2:B:79:PRO:HA	2:B:82:LEU:HD12	1.90	0.54
1:C:60:ILE:H	1:C:64:PHE:HA	1.72	0.54
1:C:154:LEU:HA	1:C:157:PHE:CZ	2.43	0.54
1:C:246:ILE:CG2	1:C:248:LYS:HB2	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:289:SER:OG	2:D:320:ARG:NH1	2.35	0.54
2:F:47:ASP:OD1	2:F:49:ILE:N	2.40	0.54
1:G:31:ASN:HA	1:G:74:VAL:HG12	1.90	0.54
1:G:165:LEU:O	1:G:248:LYS:HB3	2.08	0.54
2:J:78:ASN:ND2	2:J:80:VAL:HG22	2.23	0.54
2:J:149:CYS:H	3:J:401:NAD:H72N	1.56	0.54
2:J:209:GLY:O	2:J:213:ALA:N	2.23	0.54
1:O:58:LYS:HG3	1:O:60:ILE:HD13	1.90	0.53
1:O:63:THR:HG22	1:O:64:PHE:H	1.73	0.53
1:O:167:ILE:O	1:O:224:LYS:NZ	2.32	0.53
1:O:204:VAL:HB	1:O:231:ARG:HB2	1.89	0.53
2:P:105:ALA:HB1	2:P:116:VAL:HG11	1.91	0.53
1:Q:47:ASP:H	1:Q:51:GLY:C	2.12	0.53
1:Q:151:THR:HG22	1:Q:210:ALA:HA	1.89	0.53
2:R:45:LYS:O	2:R:53:PHE:N	2.33	0.53
2:R:89:ILE:N	2:R:112:GLY:O	2.41	0.53
2:B:32:ASP:HA	3:B:401:NAD:H2A	1.90	0.53
1:E:50:LEU:O	1:E:54:LYS:NZ	2.27	0.53
1:E:107:LYS:O	1:E:111:ALA:N	2.35	0.53
2:F:131:GLY:HA3	2:F:156:PRO:HB3	1.90	0.53
2:F:273:VAL:HG23	2:F:292:ILE:HB	1.91	0.53
1:G:181:ASP:O	1:G:183:ARG:NH1	2.32	0.53
1:I:82:LEU:HB2	1:I:84:TRP:CZ2	2.44	0.53
1:I:220:GLN:HE21	1:I:221:LEU:HD23	1.73	0.53
1:I:304:MET:HB2	1:K:169:LYS:HZ3	1.73	0.53
2:J:33:THR:OG1	2:J:77:ARG:NH1	2.41	0.53
2:J:259:PHE:O	2:J:262:SER:OG	2.23	0.53
2:L:179:THR:H	2:L:182:GLN:CD	2.11	0.53
2:R:174:THR:O	2:R:230:LEU:HB2	2.07	0.53
2:B:18(A):TRP:HA	2:B:20:ARG:HB2	1.90	0.53
2:B:190:HIS:CE1	2:B:195:ARG:HB2	2.42	0.53
1:C:78:ASP:OD2	1:C:81:LYS:HG2	2.08	0.53
1:C:82:LEU:HD13	1:C:84:TRP:CZ2	2.43	0.53
1:C:83:PRO:HA	1:C:86:GLU:CD	2.29	0.53
1:C:162:ASP:HB2	1:C:167:ILE:HD12	1.90	0.53
1:C:261:LYS:O	1:C:265:GLY:N	2.42	0.53
2:D:47:ASP:N	2:D:51:GLY:O	2.40	0.53
2:D:326:ASP:O	2:D:330:ASN:N	2.34	0.53
1:E:37:VAL:HG12	1:E:59:ILE:HG21	1.90	0.53
1:E:231:ARG:HD2	1:E:231:ARG:H	1.72	0.53
2:F:63:ALA:HB1	2:F:70:VAL:HB	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:157:PHE:CD2	2:F:158:VAL:HG13	2.44	0.53
2:F:190:HIS:CE1	2:F:195:ARG:HD2	2.43	0.53
1:G:6:ASN:HD22	1:G:94:GLU:HA	1.73	0.53
2:H:174:THR:O	2:H:230:LEU:HB2	2.08	0.53
1:I:105:ALA:O	1:I:109:ILE:N	2.28	0.53
2:J:38:LYS:NZ	2:J:39:GLN:H	2.06	0.53
2:J:165:PHE:HE2	2:J:250:THR:HB	1.72	0.53
2:J:278:LEU:O	2:L:194:ARG:NH1	2.35	0.53
1:O:281:VAL:HA	1:O:284:ARG:NH2	2.24	0.53
1:O:281:VAL:N	1:Q:202:ASN:OD1	2.32	0.53
1:Q:10:ARG:NH2	1:Q:314:GLU:OE1	2.36	0.53
1:Q:295:SER:OG	1:Q:296:LEU:N	2.41	0.53
2:R:222:LYS:H	2:R:224:LYS:HZ3	1.56	0.53
2:R:297:THR:HG22	2:R:308:ILE:H	1.73	0.53
1:A:0:LYS:N	1:A:26:ASP:OD1	2.30	0.53
2:B:129:VAL:N	2:B:133:ASN:OD1	2.41	0.53
1:C:296:LEU:HB3	1:C:308:VAL:HG11	1.89	0.53
2:D:293:ASP:OD1	2:D:296:LEU:N	2.29	0.53
1:E:37:VAL:HG21	1:E:60(A):ASP:O	2.08	0.53
2:F:1:LEU:N	2:F:24:PRO:O	2.32	0.53
2:F:162:ASP:OD2	2:F:220:ASN:ND2	2.42	0.53
2:F:172:MET:HG3	2:F:242:LEU:HD13	1.91	0.53
1:G:18(A):TRP:CH2	1:G:69:LYS:HD3	2.43	0.53
2:H:79:PRO:HG2	2:H:107:LYS:HE2	1.91	0.53
2:H:127:THR:HG21	2:H:216:LEU:HB3	1.89	0.53
2:H:296:LEU:HB2	2:H:308:ILE:HG13	1.90	0.53
1:I:109:ILE:HD13	1:I:113:ALA:HB3	1.89	0.53
1:I:236:ASN:HA	1:I:313:ASN:HD21	1.72	0.53
2:J:240:VAL:N	2:J:309:ALA:O	2.37	0.53
1:O:318:SER:HA	1:O:321:VAL:HG22	1.90	0.53
1:Q:8:PHE:O	3:Q:401:NAD:O3B	2.25	0.53
1:Q:82:LEU:HB3	1:Q:84:TRP:NE1	2.23	0.53
1:Q:186:ASP:OD1	1:Q:186:ASP:N	2.41	0.53
1:A:5:ILE:HG12	1:A:93:ILE:HD13	1.90	0.53
1:A:7:GLY:O	1:A:9:GLY:N	2.41	0.53
2:B:326:ASP:O	2:B:330:ASN:N	2.40	0.53
2:D:1:LEU:N	2:D:24:PRO:O	2.26	0.53
2:D:104:GLY:HA2	2:D:107:LYS:HE2	1.90	0.53
2:D:183:ARG:HH22	2:D:191:ARG:NH2	2.07	0.53
1:E:20:ARG:HH11	1:E:322:VAL:HG11	1.73	0.53
1:E:254:ASP:O	1:E:258:ALA:N	2.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:128:TYR:HD1	2:F:133:ASN:HB2	1.73	0.53
1:I:161:LEU:O	1:I:166:GLY:N	2.41	0.53
1:I:254:ASP:O	1:I:258:ALA:N	2.24	0.53
1:K:60(A):ASP:HB3	1:K:62:GLU:OE2	2.09	0.53
1:K:149:CYS:HB3	1:K:317:TYR:CG	2.44	0.53
1:K:324:LEU:O	1:K:327:LEU:HB2	2.08	0.53
2:L:273:VAL:HA	2:L:292:ILE:H	1.74	0.53
1:O:17:ARG:NH1	1:O:45:LYS:O	2.42	0.53
1:O:41:THR:OG1	1:O:59:ILE:HG12	2.08	0.53
2:P:183:ARG:NE	2:P:188:SER:O	2.41	0.53
1:Q:194:ARG:HB3	1:Q:195:ARG:NH1	2.24	0.53
2:R:79:PRO:HB3	2:R:108:HIS:CE1	2.43	0.53
1:A:59:ILE:H	1:A:59:ILE:HD12	1.73	0.53
1:A:209:GLY:O	1:A:213:ALA:N	2.30	0.53
1:A:236:ASN:OD1	1:A:313:ASN:N	2.41	0.53
2:B:82:LEU:HB2	2:B:84:TRP:NE1	2.23	0.53
2:B:312:ASP:OD1	2:B:315:TRP:N	2.41	0.53
2:D:11:ILE:O	2:D:15:PHE:N	2.38	0.53
2:D:30:ILE:O	2:D:73:VAL:HA	2.08	0.53
2:D:190:HIS:CE1	2:D:192:ASP:H	2.26	0.53
1:E:314:GLU:OE1	1:E:315:TRP:N	2.41	0.53
2:F:64:ILE:N	2:F:71:ILE:H	2.06	0.53
2:F:192:ASP:OD2	2:F:195:ARG:N	2.32	0.53
1:G:118:ILE:C	1:G:145:SER:HG	2.09	0.53
2:H:82:LEU:HB2	2:H:84:TRP:CD1	2.44	0.53
2:H:102:ARG:NH2	2:H:124:ASP:O	2.41	0.53
1:I:25:LEU:HG	1:I:325:ALA:HB1	1.91	0.53
2:J:11:ILE:O	2:J:15:PHE:N	2.24	0.53
2:J:82:LEU:HB2	2:J:84:TRP:NE1	2.23	0.53
2:J:243:VAL:HA	2:J:306:LYS:HA	1.90	0.53
2:L:118:ILE:HB	2:L:145:SER:HB2	1.90	0.53
2:L:139:HIS:NE2	2:L:334:UNK:O	2.42	0.53
1:O:10:ARG:N	3:O:401:NAD:O2N	2.41	0.53
1:Q:0:LYS:HD3	1:Q:24:PRO:HA	1.91	0.53
1:Q:77:ARG:HG2	3:Q:401:NAD:N1A	2.24	0.53
1:Q:246:ILE:N	1:Q:303:ASP:O	2.37	0.53
1:Q:327:LEU:HA	1:Q:330:ASN:HD21	1.73	0.53
2:R:236:ASN:O	2:R:313:ASN:ND2	2.30	0.53
1:A:1:LEU:HD11	1:A:332:TRP:CE2	2.44	0.53
1:A:203:ILE:HD11	1:A:230:LEU:HB2	1.91	0.53
2:B:120:ALA:O	2:B:145:SER:OG	2.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:169:LYS:HD3	2:D:301:GLY:HA3	1.91	0.53
2:B:280:SER:HA	2:B:310:TRP:HZ3	1.74	0.53
1:C:16:LEU:O	1:C:18(B):HIS:N	2.29	0.53
1:E:47:ASP:H	1:E:51:GLY:C	2.12	0.53
1:E:84:TRP:HD1	1:E:108:HIS:O	1.91	0.53
1:E:149:CYS:HB3	1:E:317:TYR:HD1	1.72	0.53
2:F:79:PRO:HG3	2:F:108:HIS:CE1	2.43	0.53
2:F:103:ASP:OD1	2:F:103:ASP:N	2.38	0.53
1:G:18:CYS:SG	1:G:318:SER:OG	2.53	0.53
1:G:151:THR:OG1	1:G:152:ASN:OD1	2.26	0.53
1:G:172:MET:HB2	1:G:241:ASP:O	2.09	0.53
1:G:240:VAL:HG22	1:G:241:ASP:O	2.08	0.53
2:H:179:THR:H	2:H:182:GLN:HE22	1.56	0.53
2:H:218:LEU:HB3	2:H:221:LEU:HD13	1.91	0.53
2:H:270:ILE:HG22	2:H:271:LEU:HD22	1.90	0.53
1:I:18(A):TRP:NE1	1:I:25:LEU:O	2.41	0.53
2:J:20:ARG:HA	2:J:21:LYS:HZ3	1.74	0.53
1:K:297:THR:HG22	1:K:308:VAL:N	2.23	0.53
2:L:38:LYS:HB2	2:L:42:HIS:HE1	1.74	0.53
1:O:3:VAL:N	1:O:26:ASP:O	2.20	0.53
2:P:157:PHE:CD2	2:P:158:VAL:HG13	2.44	0.53
2:P:302:ASP:N	2:P:302:ASP:OD1	2.40	0.53
1:Q:47:ASP:N	1:Q:51:GLY:O	2.38	0.53
2:R:70:VAL:O	2:R:71:ILE:HG13	2.09	0.53
1:A:119:THR:O	1:A:119:THR:OG1	2.26	0.53
1:A:124:ASP:HB2	1:G:103:PRO:HA	1.91	0.53
2:B:190:HIS:CE1	2:B:192:ASP:H	2.26	0.53
2:B:292:ILE:HD13	2:B:309:ALA:HA	1.89	0.53
1:C:134:GLU:CD	1:C:134:GLU:H	2.12	0.53
1:E:16:LEU:HG	1:E:44:LEU:HD11	1.91	0.53
1:E:37:VAL:HG12	1:E:59:ILE:CG2	2.37	0.53
1:E:183:ARG:HG3	1:E:187:ALA:O	2.08	0.53
1:E:227:GLY:HA3	1:G:306:LYS:NZ	2.24	0.53
1:G:121:PRO:CA	1:G:147:ALA:HA	2.35	0.53
1:G:192:ASP:OD2	1:G:195:ARG:HG2	2.08	0.53
1:I:0:LYS:HD2	1:I:1:LEU:HD13	1.90	0.53
1:K:45:LYS:NZ	1:K:57:VAL:H	2.06	0.53
1:K:237:VAL:HG21	1:K:280:SER:HA	1.91	0.53
1:K:296:LEU:HB3	1:K:308:VAL:HG11	1.89	0.53
2:L:107:LYS:HA	2:L:110:GLN:HB2	1.90	0.53
2:L:157:PHE:HD2	2:L:158:VAL:HG13	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:183:ARG:HH22	2:L:191:ARG:NH2	2.06	0.53
1:O:37:VAL:HG23	1:O:59:ILE:HG21	1.89	0.53
1:O:64:PHE:CZ	1:O:66:ILE:HG12	2.43	0.53
2:P:84:TRP:HD1	2:P:111:ALA:HB3	1.72	0.53
2:P:171:THR:O	2:P:243:VAL:N	2.34	0.53
2:P:172:MET:HG3	2:P:242:LEU:HD13	1.90	0.53
2:R:15:PHE:HA	2:R:18:CYS:HB2	1.90	0.53
2:R:160:VAL:O	2:R:164:LYS:N	2.28	0.53
2:R:179:THR:OG1	2:R:180:GLY:N	2.41	0.53
2:R:275:ASP:OD2	2:R:294:SER:OG	2.26	0.53
1:A:17:ARG:HH11	1:A:44:LEU:HD12	1.74	0.53
1:A:20:ARG:HG3	1:A:21:LYS:H	1.74	0.53
1:C:212:LYS:O	1:C:215:SER:OG	2.14	0.53
2:D:62:SER:O	2:D:73:VAL:HG12	2.09	0.53
1:E:17:ARG:HD3	1:E:44:LEU:CD1	2.39	0.53
2:F:45:LYS:O	2:F:52:THR:OG1	2.24	0.53
2:F:83:PRO:HB2	2:F:86:ASP:OD1	2.09	0.53
1:G:171:THR:O	1:G:242:LEU:HD12	2.09	0.53
2:H:13:ARG:O	2:H:17:ARG:N	2.27	0.53
2:H:137:TYR:CE2	2:H:328:VAL:HA	2.44	0.53
2:H:224:LYS:HG3	2:H:225:LEU:HD23	1.91	0.53
1:I:291:THR:OG1	1:I:291:THR:O	2.27	0.53
2:J:6:ASN:HD22	2:J:108:HIS:HE1	1.55	0.53
2:J:265:ASN:C	2:J:268:LYS:HZ1	2.12	0.53
1:K:91:ILE:HA	1:K:115:LYS:O	2.09	0.53
1:K:128:TYR:HA	1:K:133:ASN:HD21	1.74	0.53
1:O:37:VAL:O	1:O:41:THR:HB	2.09	0.53
1:O:203:ILE:HD11	1:O:230:LEU:HB3	1.91	0.53
2:P:105:ALA:HA	2:P:108:HIS:CD2	2.44	0.53
2:P:150:THR:OG1	2:P:151:THR:N	2.42	0.53
2:P:162:ASP:OD2	2:P:220:ASN:ND2	2.42	0.53
1:Q:126:PRO:HD2	1:Q:144:ILE:HA	1.91	0.53
2:R:18(B):HIS:CE1	2:R:66:VAL:HG12	2.44	0.53
2:R:82:LEU:HB2	2:R:84:TRP:CD1	2.43	0.53
2:R:137:TYR:CE2	2:R:328:VAL:HA	2.44	0.53
2:R:318:SER:HA	2:R:321:VAL:HB	1.91	0.53
2:B:58:LYS:O	2:B:65:SER:N	2.42	0.53
2:B:185:LEU:HB3	1:C:10:ARG:HE	1.74	0.53
2:B:275:ASP:OD1	2:B:295:SER:N	2.41	0.53
1:C:164:GLU:OE1	1:C:165:LEU:N	2.42	0.53
1:E:279:VAL:HG21	1:G:197:ARG:NH2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:93:ILE:HD13	1:G:117:ILE:HG13	1.91	0.53
1:G:248:LYS:C	1:G:248(A):VAL:HG22	2.29	0.53
1:I:273:VAL:HG12	1:I:292:ILE:HD12	1.91	0.53
1:I:279:VAL:HG23	1:I:282:ASP:HB2	1.90	0.53
1:I:332:TRP:HE3	1:I:333:PRO:HD2	1.74	0.53
2:J:190:HIS:CE1	2:J:192:ASP:H	2.26	0.53
1:O:103:PRO:O	1:O:107:LYS:N	2.30	0.53
1:O:139:HIS:ND1	1:O:139(A):ASP:OD1	2.42	0.53
2:P:78:ASN:HD21	2:P:80:VAL:HG22	1.74	0.53
2:P:281:ILE:H	2:R:202:ASN:ND2	2.00	0.53
2:P:332:TRP:NE1	2:P:334:UNK:OXT	2.42	0.53
1:Q:8:PHE:CE2	1:Q:13:ARG:HD2	2.44	0.53
1:Q:154:LEU:HB3	1:Q:158:VAL:HG11	1.91	0.53
1:Q:162:ASP:O	1:Q:166:GLY:N	2.42	0.53
1:Q:281:VAL:HG23	1:Q:284:ARG:HH21	1.74	0.53
1:Q:332:TRP:CD2	1:Q:333:PRO:HD2	2.43	0.53
2:R:109:LEU:HD21	2:R:116:VAL:HG23	1.91	0.53
2:R:186:ASP:HA	2:R:196:ALA:O	2.09	0.53
1:A:195:ARG:NH1	1:G:361:TYR:HA	2.23	0.53
1:A:293:ASP:H	1:A:296:LEU:HD12	1.73	0.53
2:B:30:ILE:N	2:B:72:LYS:O	2.41	0.53
2:B:177:SER:OG	2:B:234:THR:O	2.13	0.53
2:B:242:LEU:HB3	2:B:307:VAL:HG22	1.91	0.53
1:E:6:ASN:HA	1:E:31:ASN:HB3	1.90	0.53
1:E:16:LEU:CG	1:E:44:LEU:HD11	2.39	0.53
1:E:92:VAL:H	1:E:116:VAL:HG22	1.74	0.53
1:E:312:ASP:CG	1:E:314:GLU:H	2.13	0.53
1:E:316:GLY:O	1:E:320:ARG:HG2	2.09	0.53
1:G:77:ARG:HH11	1:G:77:ARG:N	2.07	0.53
1:G:125:ILE:HG23	1:G:144:ILE:HA	1.90	0.53
1:G:258:ALA:HA	1:G:261:LYS:HE3	1.91	0.53
2:H:109:LEU:HD21	2:H:116:VAL:HG23	1.90	0.53
1:I:41:THR:HG23	1:I:57:VAL:HG21	1.91	0.53
1:I:176:HIS:C	1:I:231:ARG:HA	2.29	0.53
1:I:324:LEU:H	1:I:324:LEU:HD22	1.74	0.53
2:J:117:LEU:HA	2:J:144:ILE:O	2.09	0.53
1:K:83:PRO:HA	1:K:86:GLU:CD	2.29	0.53
2:L:242:LEU:HB3	2:L:307:VAL:HG22	1.90	0.53
2:L:249:LYS:NZ	2:L:301:GLY:O	2.30	0.53
1:O:2:LYS:HA	1:O:26:ASP:HB3	1.92	0.52
3:O:401:NAD:O1N	3:O:401:NAD:H2D	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:79:PRO:HG3	2:P:108:HIS:HE1	1.74	0.52
2:P:149:CYS:SG	2:P:150:THR:N	2.82	0.52
1:Q:190:HIS:HD1	1:Q:196:ALA:HB2	1.75	0.52
1:Q:264:ALA:HA	1:Q:268:LYS:NZ	2.25	0.52
2:R:191:ARG:NH1	2:R:191:ARG:H	2.07	0.52
2:R:218:LEU:HB3	2:R:221:LEU:HD13	1.90	0.52
1:A:53:PHE:HA	1:A:54:LYS:HZ3	1.75	0.52
1:A:190:HIS:ND1	1:G:357:GLU:O	2.42	0.52
2:B:20:ARG:HA	2:B:21:LYS:HZ3	1.74	0.52
2:B:118:ILE:O	2:B:145:SER:OG	2.21	0.52
2:B:286:THR:HG22	2:B:288:VAL:HG13	1.90	0.52
1:C:40:ALA:O	1:C:44:LEU:N	2.34	0.52
1:C:84:TRP:HB2	1:C:111:ALA:O	2.09	0.52
2:F:168:ILE:HB	2:F:245:GLN:HG2	1.92	0.52
1:G:160:VAL:O	1:G:163:GLU:HG2	2.09	0.52
1:G:165:LEU:HG	1:G:246:ILE:HG21	1.90	0.52
1:G:170:GLY:HA2	1:G:244:VAL:HA	1.90	0.52
2:H:63:ALA:HA	2:H:72:LYS:HA	1.90	0.52
2:H:141:ASP:OD1	2:H:141:ASP:N	2.24	0.52
2:H:232:VAL:O	2:H:234:THR:N	2.40	0.52
2:H:288:VAL:HA	2:H:320:ARG:HH12	1.74	0.52
1:I:38:LYS:HA	1:I:41:THR:HB	1.91	0.52
2:J:88:GLY:O	2:J:114:LYS:NZ	2.41	0.52
2:J:173:THR:HG1	2:L:306:LYS:HZ3	1.49	0.52
2:J:192:ASP:HB3	2:J:195:ARG:HB2	1.90	0.52
1:K:28:VAL:O	1:K:71:ILE:HG23	2.08	0.52
1:K:101:ASP:OD2	1:K:103:PRO:HB2	2.09	0.52
1:K:115:LYS:HZ1	1:K:332:TRP:HE1	1.57	0.52
1:K:344:PRO:O	1:K:346:GLU:N	2.42	0.52
2:L:206:THR:OG1	2:L:207:SER:N	2.42	0.52
2:P:104:GLY:HA2	2:P:107:LYS:HB2	1.92	0.52
2:P:167:ILE:HA	2:P:246:VAL:HA	1.91	0.52
1:Q:236:ASN:HB3	1:Q:284:ARG:HH12	1.73	0.52
1:A:270:VAL:O	1:A:289:SER:OG	2.27	0.52
2:B:169:LYS:O	2:B:245:GLN:N	2.42	0.52
1:C:10:ARG:HB2	3:C:401:NAD:O3	2.09	0.52
1:C:115:LYS:HZ2	1:C:139:HIS:HA	1.73	0.52
1:C:240:VAL:HG12	1:C:311:TYR:CE1	2.45	0.52
2:D:255:VAL:HB	2:D:259:PHE:CZ	2.44	0.52
1:E:10:ARG:HH22	2:H:185:LEU:HD12	1.74	0.52
2:F:270:ILE:O	2:F:320:ARG:NH1	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:147:ALA:O	1:G:317:TYR:OH	2.20	0.52
1:G:165:LEU:HD12	1:G:248:LYS:O	2.09	0.52
2:H:1:LEU:HB3	2:H:25:LEU:HD13	1.91	0.52
1:I:47:ASP:OD1	1:I:48:SER:N	2.43	0.52
1:I:49:ILE:HG23	1:I:284:ARG:CZ	2.39	0.52
2:J:186:ASP:CG	2:J:198:ALA:H	2.13	0.52
2:J:206:THR:OG1	2:J:207:SER:N	2.42	0.52
1:O:132:VAL:O	1:O:135:LYS:NZ	2.25	0.52
1:Q:64:PHE:O	1:Q:71:ILE:N	2.30	0.52
1:Q:94:GLU:OE2	1:Q:96:THR:OG1	2.16	0.52
1:Q:249:GLY:HA2	1:Q:302:GLY:CA	2.40	0.52
1:A:103:PRO:O	1:A:107:LYS:N	2.42	0.52
1:A:126:PRO:HG3	1:A:144:ILE:HG22	1.91	0.52
1:C:203:ILE:O	1:C:205:PRO:HD3	2.09	0.52
1:C:270:VAL:O	1:C:289:SER:N	2.39	0.52
2:D:89:ILE:O	2:D:114:LYS:N	2.42	0.52
2:D:107:LYS:HA	2:D:110:GLN:HB2	1.92	0.52
1:E:28:VAL:C	1:E:71:ILE:HG23	2.30	0.52
1:E:310:TRP:N	1:E:310:TRP:CD1	2.77	0.52
2:F:150:THR:OG1	2:F:151:THR:N	2.43	0.52
2:F:320:ARG:NE	2:F:323:ASP:OD2	2.39	0.52
1:I:167:ILE:HB	1:I:221:LEU:HD11	1.91	0.52
1:K:6:ASN:O	1:K:6:ASN:ND2	2.43	0.52
1:K:18(A):TRP:NE1	1:K:26:ASP:HA	2.24	0.52
1:K:37:VAL:HA	1:K:40:ALA:HB3	1.91	0.52
1:O:101:ASP:HB2	1:O:103:PRO:HD2	1.90	0.52
1:O:315:TRP:O	1:O:318:SER:OG	2.27	0.52
2:P:100:VAL:HG13	2:P:122(A):LYS:HB2	1.90	0.52
1:Q:103:PRO:O	1:Q:107:LYS:N	2.37	0.52
1:Q:105:ALA:HA	1:Q:108:HIS:HD2	1.75	0.52
2:R:21:LYS:HZ2	2:R:21:LYS:H	1.56	0.52
2:R:218:LEU:HD22	2:R:221:LEU:HD13	1.92	0.52
2:R:256:ASN:O	2:R:260:ARG:N	2.32	0.52
1:A:128:TYR:HB2	1:A:145:SER:O	2.09	0.52
1:A:171:THR:C	1:A:242:LEU:HD12	2.29	0.52
1:A:176:HIS:HA	1:A:238:SER:HB2	1.91	0.52
2:B:6:ASN:HB2	2:B:84:TRP:CZ2	2.44	0.52
2:B:127:THR:HG23	2:B:133:ASN:ND2	2.24	0.52
1:C:254:ASP:HA	1:C:257:ASN:HD22	1.75	0.52
1:C:298:MET:HG2	1:C:306:LYS:HE3	1.91	0.52
2:D:205:PRO:HA	2:D:230:LEU:HD23	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:170:GLY:O	1:E:225:LEU:HA	2.09	0.52
2:F:194:ARG:NE	2:F:205:PRO:O	2.42	0.52
1:G:45:LYS:HG2	1:G:46:TYR:CZ	2.44	0.52
1:G:132:VAL:N	1:G:134:GLU:OE1	2.42	0.52
1:G:168:VAL:H	1:G:246:ILE:HA	1.73	0.52
1:G:248:LYS:HG2	1:G:248(A):VAL:HG22	1.91	0.52
1:G:256:ASN:O	1:G:259:PHE:HB2	2.09	0.52
2:H:17:ARG:NH2	2:H:54:ASP:OD1	2.42	0.52
2:H:83:PRO:HB2	2:H:86:ASP:HB2	1.90	0.52
2:H:106:GLY:HA2	2:H:109:LEU:HB2	1.90	0.52
1:I:243:VAL:HG21	1:K:243:VAL:HG11	1.91	0.52
2:J:6:ASN:O	2:J:95:GLY:N	2.41	0.52
2:J:279:VAL:HA	2:J:310:TRP:CH2	2.44	0.52
2:J:292:ILE:HD13	2:J:309:ALA:HA	1.90	0.52
1:K:79:PRO:HB2	1:K:107:LYS:HB2	1.90	0.52
1:K:219:PRO:HA	1:K:222:LYS:HD3	1.90	0.52
2:L:91:LEU:HA	2:L:115:LYS:O	2.10	0.52
1:O:134:GLU:OE1	1:O:134:GLU:N	2.41	0.52
1:O:321:VAL:HA	1:O:324:LEU:HG	1.91	0.52
1:Q:256:ASN:O	1:Q:260:ARG:N	2.31	0.52
3:Q:401:NAD:N7N	3:Q:401:NAD:O1N	2.42	0.52
2:R:106:GLY:HA2	2:R:109:LEU:HB2	1.91	0.52
2:R:203:ILE:HD11	2:R:230:LEU:HD13	1.92	0.52
2:R:251:PHE:CZ	2:R:253:GLU:HB3	2.44	0.52
1:A:14:ASN:ND2	1:A:314:GLU:OE1	2.43	0.52
1:A:16:LEU:HD22	1:A:44:LEU:HD13	1.91	0.52
1:A:137:TYR:HH	1:A:139:HIS:CE1	2.26	0.52
2:B:8:PHE:H	2:B:32:ASP:HB2	1.74	0.52
2:B:64:ILE:H	2:B:71:ILE:H	1.55	0.52
2:B:184:LEU:HG	2:B:185:LEU:HD13	1.91	0.52
2:B:202:ASN:ND2	2:D:281:ILE:HG22	2.24	0.52
1:C:148:SER:O	1:C:152:ASN:N	2.31	0.52
2:D:94:GLU:HG2	2:D:96:THR:HG23	1.92	0.52
2:D:157:PHE:HD2	2:D:158:VAL:HG13	1.74	0.52
1:E:267:LEU:HA	1:E:270:VAL:HB	1.91	0.52
2:F:115:LYS:NZ	2:F:139:HIS:O	2.33	0.52
1:G:102:GLY:N	1:G:103:PRO:HD2	2.25	0.52
2:H:77:ARG:HB3	3:H:401:NAD:H62A	1.74	0.52
2:J:19:GLY:O	2:J:21:LYS:NZ	2.43	0.52
2:J:281:ILE:H	2:L:202:ASN:ND2	2.07	0.52
1:K:1:LEU:HG	1:K:90:ASP:OD2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:332:TRP:CH2	1:K:334:GLY:HA3	2.44	0.52
2:L:30:ILE:O	2:L:73:VAL:HA	2.09	0.52
2:P:7:GLY:HA2	3:P:401:NAD:N3A	2.25	0.52
2:P:42:HIS:HA	2:P:45:LYS:HB3	1.90	0.52
2:P:83:PRO:HB2	2:P:86:ASP:OD1	2.09	0.52
2:P:244:VAL:O	2:P:305:VAL:N	2.43	0.52
1:Q:236:ASN:ND2	1:Q:312:ASP:OD1	2.42	0.52
2:R:40:ALA:O	2:R:44:LEU:N	2.38	0.52
2:R:146:ASN:OD1	2:R:147:ALA:N	2.43	0.52
1:A:10:ARG:NH1	2:D:185:LEU:HB3	2.17	0.52
1:A:202:ASN:ND2	1:C:281:VAL:HG12	2.24	0.52
1:A:293:ASP:HB3	1:A:296:LEU:HG	1.90	0.52
2:B:213:ALA:HA	2:B:216:LEU:HD13	1.91	0.52
2:B:239:VAL:HA	2:B:310:TRP:HA	1.90	0.52
1:C:30:VAL:HB	1:C:73:VAL:HG13	1.89	0.52
1:C:178:TYR:HD2	1:C:233:PRO:HA	1.73	0.52
1:C:214:VAL:O	1:C:218:LEU:N	2.43	0.52
2:D:8:PHE:HB3	2:D:32:ASP:HB2	1.91	0.52
2:D:179:THR:H	2:D:182:GLN:CD	2.11	0.52
2:D:224:LYS:NZ	2:D:225:LEU:HB2	2.24	0.52
2:F:161:LEU:HD22	2:F:167:ILE:HD11	1.92	0.52
1:G:6:ASN:ND2	1:G:96:THR:OG1	2.34	0.52
2:H:146:ASN:OD1	2:H:147:ALA:N	2.43	0.52
1:K:240:VAL:HG13	1:K:311:TYR:CE1	2.45	0.52
2:L:8:PHE:HB3	2:L:32:ASP:HB2	1.91	0.52
2:L:41:SER:OG	2:L:42:HIS:N	2.43	0.52
2:L:172:MET:HA	2:L:242:LEU:HA	1.91	0.52
1:O:8:PHE:CZ	1:O:13:ARG:HG3	2.44	0.52
2:P:270:ILE:O	2:P:320:ARG:NH1	2.42	0.52
1:Q:172:MET:HA	1:Q:242:LEU:HA	1.91	0.52
2:R:94:GLU:HB3	2:R:118:ILE:HD11	1.92	0.52
2:R:197:ARG:NH2	2:R:198:ALA:HB3	2.24	0.52
2:R:243:VAL:HG22	2:R:306:LYS:HA	1.92	0.52
1:A:239:VAL:HB	1:A:310:TRP:CD2	2.44	0.52
2:B:41:SER:OG	2:B:42:HIS:N	2.41	0.52
2:B:209:GLY:O	2:B:213:ALA:N	2.23	0.52
1:C:21:LYS:NZ	1:C:22:ASP:H	2.08	0.52
1:C:46:TYR:HA	1:C:52:THR:HA	1.91	0.52
1:C:109:ILE:HG12	1:C:143:ILE:HD11	1.92	0.52
1:C:267:LEU:HB2	1:C:271:LEU:HB3	1.91	0.52
1:E:17:ARG:HD2	1:E:44:LEU:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:8:PHE:CZ	2:F:13:ARG:HG3	2.45	0.52
2:F:149:CYS:SG	2:F:150:THR:N	2.83	0.52
2:F:236:ASN:ND2	2:F:237:VAL:H	2.08	0.52
1:G:171:THR:N	1:G:243:VAL:O	2.40	0.52
2:H:318:SER:HA	2:H:321:VAL:HB	1.91	0.52
2:J:213:ALA:HA	2:J:216:LEU:HD13	1.91	0.52
2:J:242:LEU:HD11	2:J:244:VAL:HG13	1.91	0.52
1:K:29:VAL:HG23	1:K:73:VAL:HA	1.91	0.52
1:K:150:THR:O	1:K:154:LEU:HG	2.10	0.52
1:O:101:ASP:OD2	1:O:103:PRO:HB2	2.09	0.52
1:O:166:GLY:HA3	1:O:247:GLU:HG3	1.92	0.52
1:O:346:GLU:N	1:C:191:ARG:HD2	2.25	0.52
2:P:2:LYS:NZ	2:P:26:ASP:OD2	2.40	0.52
2:P:183:ARG:NH2	2:P:191:ARG:HH12	2.08	0.52
1:Q:50:LEU:HD21	1:Q:54:LYS:HZ3	1.74	0.52
1:Q:213:ALA:HA	1:Q:216:LEU:HB2	1.92	0.52
2:R:102:ARG:NH2	2:R:124:ASP:O	2.42	0.52
1:A:187:ALA:HA	2:D:43:LEU:HD13	1.91	0.52
2:B:215:ALA:HB1	2:B:222:LYS:HG2	1.92	0.52
2:B:293:ASP:OD2	2:B:295:SER:OG	2.27	0.52
1:C:169:LYS:H	1:C:245:ASN:CG	2.13	0.52
1:C:186:ASP:HB3	1:C:197:ARG:HE	1.74	0.52
1:C:251:THR:OG1	1:C:252:ALA:N	2.41	0.52
2:D:242:LEU:HB3	2:D:307:VAL:HG22	1.92	0.52
2:D:249:LYS:NZ	2:D:301:GLY:O	2.32	0.52
2:F:17:ARG:HD3	2:F:50:LEU:HD12	1.90	0.52
2:F:84:TRP:CD1	2:F:111:ALA:HB3	2.44	0.52
2:F:132:VAL:HG11	2:F:217:VAL:HB	1.92	0.52
2:F:244:VAL:O	2:F:305:VAL:N	2.42	0.52
1:G:167:ILE:HA	1:G:246:ILE:HD12	1.92	0.52
1:G:236:ASN:OD1	1:G:313:ASN:ND2	2.43	0.52
1:K:164:GLU:HG3	1:K:165:LEU:HD22	1.92	0.52
1:O:13:ARG:H	1:O:13:ARG:HD2	1.75	0.52
1:O:156:PRO:O	1:O:160:VAL:N	2.34	0.52
1:Q:151:THR:OG1	1:Q:152:ASN:N	2.41	0.52
1:Q:249:GLY:CA	1:Q:302:GLY:CA	2.88	0.52
2:R:1:LEU:H	2:R:26:ASP:H	1.57	0.52
2:R:244:VAL:O	2:R:305:VAL:N	2.38	0.52
2:R:270:ILE:HG22	2:R:271:LEU:HD22	1.90	0.52
2:B:236:ASN:OD1	2:B:284:ARG:NH1	2.43	0.52
1:C:293:ASP:OD1	1:C:295:SER:OG	2.16	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:10:ARG:HG3	3:D:401:NAD:O1N	2.10	0.52
2:D:137:TYR:O	2:D:331:LYS:NZ	2.23	0.52
1:E:139:HIS:ND1	1:E:332:TRP:HA	2.25	0.52
1:E:213:ALA:O	1:E:216:LEU:HB2	2.10	0.52
2:F:37:VAL:HG23	2:F:38:LYS:H	1.75	0.52
2:F:103:ASP:O	2:F:107:LYS:N	2.32	0.52
2:F:239:VAL:HG12	2:F:309:ALA:O	2.10	0.52
1:G:205:PRO:HD3	1:G:230:LEU:HD13	1.92	0.52
2:H:172:MET:HA	2:H:242:LEU:HA	1.91	0.52
2:H:186:ASP:HA	2:H:196:ALA:O	2.10	0.52
2:H:267:LEU:HD22	2:H:271:LEU:HD23	1.92	0.52
2:H:318:SER:O	2:H:322:VAL:N	2.31	0.52
1:I:9:GLY:HA2	3:I:401:NAD:H4B	1.90	0.52
1:I:46:TYR:C	2:L:197:ARG:HH12	2.14	0.52
1:I:183:ARG:NH1	1:I:187:ALA:O	2.43	0.52
1:I:318:SER:OG	1:I:319:GLN:N	2.41	0.52
2:J:5:ILE:O	2:J:31:ASN:N	2.40	0.52
2:J:6:ASN:OD1	2:J:7:GLY:N	2.42	0.52
2:J:157:PHE:HA	2:J:160:VAL:HB	1.92	0.52
2:J:181:ASP:OD1	2:J:195:ARG:NH1	2.42	0.52
2:L:5:ILE:HG23	2:L:93:ILE:HB	1.91	0.52
2:L:292:ILE:HG23	2:L:308:ILE:O	2.10	0.52
1:O:176:HIS:HB3	1:O:231:ARG:CA	2.39	0.52
2:P:14:ASN:OD1	2:P:318:SER:OG	2.14	0.52
2:P:205:PRO:HA	2:P:230:LEU:HD23	1.91	0.52
2:R:47:ASP:CG	2:R:50:LEU:H	2.13	0.52
2:R:102:ARG:HH22	2:R:125:ILE:HA	1.74	0.52
2:R:288:VAL:HA	2:R:320:ARG:HH12	1.74	0.52
1:A:190:HIS:O	2:D:39:GLN:NE2	2.42	0.52
1:C:248(A):VAL:HG13	1:C:249:GLY:H	1.74	0.52
1:C:285:CYS:HA	1:C:315:TRP:CG	2.45	0.52
2:D:18(A):TRP:NE1	2:D:25:LEU:O	2.40	0.52
2:D:118:ILE:HB	2:D:145:SER:HB2	1.91	0.52
2:D:273:VAL:HA	2:D:292:ILE:H	1.73	0.52
1:E:232:VAL:O	1:E:234:THR:N	2.42	0.52
2:F:157:PHE:CE1	2:F:271:LEU:HG	2.45	0.52
1:G:18(A):TRP:NE1	1:G:25:LEU:O	2.43	0.52
1:G:96:THR:HB	1:G:98:VAL:HG22	1.92	0.52
1:G:255:VAL:HA	1:G:258:ALA:HB3	1.92	0.52
1:I:134:GLU:HG2	1:I:135:LYS:H	1.74	0.52
1:I:135:LYS:H	1:I:135:LYS:HZ2	1.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:290:SER:OG	1:I:310:TRP:N	2.42	0.52
2:J:37:VAL:HG23	2:J:38:LYS:H	1.75	0.52
2:J:41:SER:O	2:J:45:LYS:N	2.19	0.52
2:J:130:VAL:HG21	2:J:320:ARG:HG3	1.90	0.52
2:J:237:VAL:HG13	2:J:312:ASP:HA	1.90	0.52
1:K:69:LYS:HB3	1:K:71:ILE:HD13	1.91	0.52
2:L:42:HIS:CD2	2:L:46:TYR:HE2	2.28	0.52
2:L:65:SER:CA	2:L:70:VAL:HA	2.38	0.52
2:P:168:ILE:HB	2:P:245:GLN:HG2	1.91	0.51
1:Q:28:VAL:O	1:Q:72:LYS:N	2.29	0.51
1:Q:171:THR:HA	1:Q:225:LEU:HD12	1.93	0.51
2:R:10:ARG:N	3:R:401:NAD:O2N	2.43	0.51
2:R:267:LEU:HD22	2:R:271:LEU:HD23	1.92	0.51
1:A:361:TYR:H	1:G:195:ARG:CZ	2.23	0.51
2:B:265:ASN:C	2:B:268:LYS:HZ1	2.13	0.51
2:B:273:VAL:HA	2:B:292:ILE:H	1.74	0.51
1:C:31:ASN:HD21	1:C:76:ASN:C	2.12	0.51
1:C:62:GLU:O	1:C:73:VAL:N	2.41	0.51
1:C:107:LYS:O	1:C:110:GLN:HG2	2.09	0.51
1:C:248(A):VAL:HG13	1:C:249:GLY:N	2.25	0.51
2:D:91:LEU:HA	2:D:115:LYS:O	2.10	0.51
2:D:292:ILE:HG23	2:D:308:ILE:O	2.10	0.51
1:E:94:GLU:O	1:E:119:THR:OG1	2.17	0.51
1:E:229:ALA:O	1:E:230:LEU:HD13	2.10	0.51
2:F:8:PHE:HB3	2:F:32:ASP:HB2	1.90	0.51
2:F:38:LYS:NZ	2:F:39:GLN:H	2.07	0.51
2:F:100:VAL:HG13	2:F:122(A):LYS:HB2	1.92	0.51
2:F:167:ILE:HA	2:F:246:VAL:HA	1.91	0.51
2:F:174:THR:O	2:F:230:LEU:HB2	2.10	0.51
2:F:332:TRP:NE1	2:F:334:UNK:OXT	2.43	0.51
1:G:12:GLY:HA2	1:G:15:PHE:HB3	1.92	0.51
2:H:79:PRO:HB3	2:H:108:HIS:ND1	2.24	0.51
2:H:105:ALA:O	2:H:109:LEU:N	2.40	0.51
2:H:162:ASP:OD1	2:H:167:ILE:N	2.31	0.51
2:H:192:ASP:CG	2:H:195:ARG:H	2.13	0.51
2:H:243:VAL:HG22	2:H:306:LYS:HA	1.92	0.51
2:J:157:PHE:O	2:J:161:LEU:N	2.26	0.51
2:J:215:ALA:HB1	2:J:222:LYS:HG2	1.92	0.51
2:L:94:GLU:HG2	2:L:96:THR:HG23	1.92	0.51
2:P:38:LYS:HZ3	2:P:39:GLN:HG3	1.75	0.51
2:P:157:PHE:CE1	2:P:271:LEU:HG	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:2:LYS:N	1:Q:90:ASP:OD2	2.42	0.51
1:Q:175:THR:O	1:Q:238:SER:HA	2.09	0.51
1:A:293:ASP:O	1:A:296:LEU:HB2	2.10	0.51
2:B:2:LYS:HD3	2:B:87:MET:O	2.09	0.51
2:D:105:ALA:HA	2:D:108:HIS:CD2	2.46	0.51
2:F:2:LYS:HA	2:F:26:ASP:O	2.10	0.51
1:G:161:LEU:HB2	1:G:167:ILE:HD11	1.91	0.51
2:J:127:THR:HG23	2:J:133:ASN:ND2	2.24	0.51
2:J:129:VAL:N	2:J:133:ASN:OD1	2.41	0.51
2:J:138:THR:OG1	2:J:141:ASP:OD1	2.26	0.51
2:J:281:ILE:O	2:J:284:ARG:HB3	2.10	0.51
2:L:104:GLY:HA2	2:L:107:LYS:HE2	1.91	0.51
1:O:41:THR:HG23	1:O:57:VAL:CG1	2.40	0.51
1:O:123(A):SER:OG	1:C:142:ASN:ND2	2.44	0.51
1:O:200:ALA:HB3	1:O:201:LEU:HD23	1.93	0.51
1:O:253:GLU:HA	1:O:256:ASN:HD21	1.75	0.51
1:Q:85:ALA:N	1:Q:111:ALA:O	2.32	0.51
1:Q:156:PRO:HB3	1:Q:267:LEU:HG	1.93	0.51
1:Q:256:ASN:HA	1:Q:259:PHE:HB2	1.92	0.51
1:Q:324:LEU:HA	1:Q:327:LEU:HB3	1.92	0.51
1:A:127:THR:HG21	1:A:216:LEU:HB3	1.93	0.51
1:A:214:VAL:O	1:A:217:VAL:HG22	2.11	0.51
2:B:237:VAL:HG13	2:B:312:ASP:HA	1.92	0.51
1:C:168:VAL:HB	1:C:245:ASN:CG	2.30	0.51
1:C:239:VAL:HA	1:C:310:TRP:HA	1.91	0.51
2:D:141:ASP:OD1	2:D:141:ASP:N	2.43	0.51
2:D:240:VAL:HG13	2:D:309:ALA:HB3	1.93	0.51
1:E:219:PRO:HA	1:E:222:LYS:HZ1	1.75	0.51
2:F:63:ALA:HA	2:F:71:ILE:C	2.31	0.51
1:G:62:GLU:OE1	1:G:62:GLU:N	2.43	0.51
1:I:95:GLY:O	3:I:401:NAD:H1B	2.10	0.51
1:I:280:SER:HA	1:I:283:PHE:HB2	1.92	0.51
2:J:102:ARG:HH21	2:J:125:ILE:HA	1.76	0.51
2:J:179:THR:H	2:J:182:GLN:CD	2.12	0.51
2:P:38:LYS:NZ	2:P:39:GLN:H	2.08	0.51
2:P:94:GLU:O	2:P:119:THR:OG1	2.18	0.51
2:P:102:ARG:HH22	2:P:126:PRO:HD2	1.76	0.51
2:P:148:SER:O	2:P:152:ASN:N	2.30	0.51
2:P:161:LEU:HD22	2:P:167:ILE:HD11	1.92	0.51
2:P:190:HIS:CE1	2:P:195:ARG:HD2	2.45	0.51
2:P:237:VAL:HG22	2:P:312:ASP:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:221:LEU:HD13	1:A:224:LYS:HB2	1.93	0.51
1:A:297:THR:OG1	1:A:298:MET:N	2.43	0.51
2:B:0:LYS:HZ1	2:B:332:TRP:HB2	1.75	0.51
2:B:203:ILE:O	2:D:279:VAL:HG11	2.10	0.51
1:C:82:LEU:HB3	1:C:84:TRP:CD2	2.45	0.51
1:C:169:LYS:N	1:C:245:ASN:OD1	2.39	0.51
1:C:176:HIS:HB3	1:C:231:ARG:CZ	2.40	0.51
2:D:58:LYS:O	2:D:65:SER:N	2.44	0.51
1:E:29:VAL:HA	1:E:72:LYS:O	2.09	0.51
1:E:30:VAL:HB	1:E:73:VAL:CG1	2.40	0.51
1:E:155:ALA:HA	1:E:158:VAL:HG22	1.91	0.51
2:F:13:ARG:HE	2:F:43:LEU:HB3	1.75	0.51
2:F:49:ILE:HG23	2:F:284:ARG:HH11	1.75	0.51
1:G:77:ARG:HH11	1:G:77:ARG:H	1.59	0.51
1:G:170:GLY:O	1:G:225:LEU:HA	2.10	0.51
2:H:17:ARG:HD3	2:H:50:LEU:HD12	1.92	0.51
2:H:251:PHE:CZ	2:H:253:GLU:HB3	2.45	0.51
1:I:60:ILE:HG22	1:I:60(A):ASP:H	1.74	0.51
1:I:128:TYR:HA	1:I:133:ASN:ND2	2.26	0.51
1:I:172:MET:HA	1:I:242:LEU:HA	1.90	0.51
1:I:246:ILE:HG23	1:I:248:LYS:N	2.25	0.51
2:J:102:ARG:HH21	2:J:125:ILE:HG13	1.75	0.51
2:J:166:GLY:O	2:J:247:SER:N	2.29	0.51
1:O:149:CYS:SG	1:O:150:THR:N	2.84	0.51
1:A:182:GLN:NE2	1:A:231:ARG:HD3	2.25	0.51
1:A:296:LEU:HB3	1:A:308:VAL:HB	1.93	0.51
2:B:78:ASN:ND2	2:B:81:ASN:OD1	2.44	0.51
2:D:2:LYS:O	2:D:90:ASP:N	2.32	0.51
1:E:244:VAL:O	1:E:305:VAL:N	2.37	0.51
1:E:315:TRP:O	1:E:319:GLN:N	2.27	0.51
1:G:18:CYS:O	1:G:20:ARG:HG2	2.10	0.51
2:H:58:LYS:O	2:H:65:SER:N	2.43	0.51
2:J:267:LEU:HB3	2:J:271:LEU:H	1.74	0.51
2:L:89:ILE:O	2:L:114:LYS:N	2.43	0.51
1:O:5:ILE:HB	1:O:30:VAL:HG13	1.93	0.51
2:P:7:GLY:HA3	2:P:96:THR:HA	1.92	0.51
2:P:20:ARG:HA	2:P:21:LYS:HZ3	1.76	0.51
1:Q:205:PRO:HB2	1:Q:228:ILE:HD12	1.92	0.51
1:Q:212:LYS:H	1:Q:212:LYS:NZ	2.06	0.51
2:B:102:ARG:HH21	2:B:125:ILE:HA	1.76	0.51
2:B:190:HIS:HB3	2:B:196:ALA:HB2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:18(A):TRP:O	1:C:20:ARG:HB3	2.10	0.51
1:C:287:ASP:HA	1:C:319:GLN:HG3	1.91	0.51
2:D:6:ASN:HB3	2:D:94:GLU:HA	1.91	0.51
2:F:63:ALA:HA	2:F:71:ILE:O	2.10	0.51
1:G:141:ALA:O	1:G:144:ILE:HG23	2.11	0.51
1:G:260:ARG:HD3	1:G:273:VAL:HG11	1.93	0.51
1:I:58:LYS:HZ2	1:I:58:LYS:HA	1.76	0.51
2:J:4:ALA:HA	2:J:29:VAL:O	2.11	0.51
2:J:236:ASN:ND2	2:J:237:VAL:H	2.09	0.51
2:J:260:ARG:HE	2:J:273:VAL:HG13	1.76	0.51
1:K:104:GLY:O	1:K:108:HIS:HD2	1.93	0.51
1:K:166:GLY:C	1:K:247:GLU:HB3	2.31	0.51
1:K:177:SER:OG	1:K:234:THR:O	2.28	0.51
1:K:214:VAL:HB	1:K:218:LEU:HD23	1.93	0.51
1:O:55:ALA:HB1	1:O:67:ASP:OD2	2.11	0.51
1:O:60(A):ASP:C	1:O:62:GLU:N	2.64	0.51
1:O:124:ASP:N	1:O:124:ASP:OD1	2.44	0.51
2:P:186:ASP:OD1	2:P:186:ASP:N	2.40	0.51
2:P:206:THR:HG21	2:P:231:ARG:HE	1.76	0.51
2:P:273:VAL:HG23	2:P:292:ILE:HB	1.93	0.51
2:P:281:ILE:HD12	2:P:284:ARG:HE	1.76	0.51
1:Q:168:VAL:N	1:Q:247:GLU:OE1	2.44	0.51
2:R:179:THR:HG23	2:R:182:GLN:HE22	1.75	0.51
1:A:1:LEU:N	1:A:26:ASP:OD1	2.44	0.51
1:A:117:ILE:HD11	1:A:324:LEU:HB3	1.93	0.51
1:A:168:VAL:N	1:A:247:GLU:HG3	2.26	0.51
2:B:1:LEU:N	2:B:24:PRO:O	2.35	0.51
2:B:88:GLY:O	2:B:114:LYS:NZ	2.43	0.51
2:B:179:THR:OG1	2:B:182:GLN:NE2	2.42	0.51
1:C:133:ASN:N	1:C:133:ASN:OD1	2.44	0.51
1:C:145:SER:OG	1:C:146:ASN:N	2.42	0.51
2:D:279:VAL:N	2:D:282:ASP:OD2	2.25	0.51
2:F:157:PHE:HB2	2:F:259:PHE:CZ	2.46	0.51
2:F:270:ILE:O	2:F:289:SER:OG	2.24	0.51
1:G:192:ASP:OD1	1:G:194:ARG:HB2	2.10	0.51
2:H:91:LEU:HD21	2:H:93:ILE:HD11	1.93	0.51
2:J:304:MET:HE2	2:L:169:LYS:HB3	1.93	0.51
1:K:312:ASP:CG	1:K:316:GLY:H	2.14	0.51
2:L:2:LYS:O	2:L:90:ASP:N	2.31	0.51
2:L:29:VAL:HG11	2:L:89:ILE:HD11	1.93	0.51
2:L:123:GLY:O	2:L:125:ILE:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:326:ASP:O	2:L:330:ASN:N	2.35	0.51
1:O:191:ARG:HB3	1:C:358:CYS:HB2	1.93	0.51
1:O:238:SER:HB2	1:O:311:TYR:CE1	2.46	0.51
2:P:90:ASP:HA	2:P:114:LYS:HE2	1.93	0.51
2:P:239:VAL:HG12	2:P:309:ALA:O	2.10	0.51
1:Q:152:ASN:ND2	1:Q:152:ASN:H	2.07	0.51
1:Q:169:LYS:O	1:Q:244:VAL:HG23	2.10	0.51
2:R:17:ARG:HG2	2:R:53:PHE:CE2	2.46	0.51
2:R:117:LEU:HA	2:R:144:ILE:O	2.11	0.51
2:B:115:LYS:HD2	2:B:142:THR:HA	1.93	0.51
2:B:157:PHE:HA	2:B:160:VAL:HB	1.92	0.51
2:B:186:ASP:CG	2:B:198:ALA:H	2.13	0.51
2:B:203:ILE:HG12	2:B:204:VAL:H	1.76	0.51
1:C:161:LEU:HB2	1:C:259:PHE:HZ	1.75	0.51
1:C:259:PHE:HA	1:C:262:ALA:HB3	1.92	0.51
2:D:184:LEU:HG	2:D:185:LEU:HD22	1.93	0.51
1:E:139(A):ASP:N	1:E:139(A):ASP:OD1	2.41	0.51
2:F:15:PHE:CD2	2:F:318:SER:HB2	2.44	0.51
2:F:78:ASN:HD21	2:F:80:VAL:HG22	1.75	0.51
1:G:109:ILE:HA	1:G:113:ALA:HB3	1.92	0.51
1:G:246:ILE:O	1:G:303:ASP:HA	2.11	0.51
1:I:293:ASP:OD1	1:I:295:SER:N	2.43	0.51
2:J:7:GLY:O	2:J:9:GLY:N	2.42	0.51
2:J:15:PHE:HE2	2:J:321:VAL:HG12	1.76	0.51
2:J:139:HIS:CG	2:J:333:GLN:H	2.29	0.51
2:J:151:THR:HG23	2:J:210:ALA:HA	1.93	0.51
2:J:182:GLN:NE2	2:J:182:GLN:H	2.09	0.51
1:K:20:ARG:HA	1:K:21:LYS:HZ3	1.76	0.51
1:K:62:GLU:CG	1:K:72:LYS:HE2	2.40	0.51
2:L:47:ASP:CG	2:L:50:LEU:H	2.13	0.51
2:L:262:SER:HA	2:L:265:ASN:HD21	1.76	0.51
1:O:82:LEU:HB3	1:O:84:TRP:CE2	2.45	0.51
1:O:167:ILE:HG23	1:O:244:VAL:HB	1.93	0.51
1:O:169:LYS:HG2	1:Q:304:MET:SD	2.51	0.51
2:P:174:THR:O	2:P:230:LEU:HB2	2.10	0.51
2:R:317:TYR:O	2:R:321:VAL:N	2.30	0.51
1:A:87:LEU:HB2	1:A:89:ILE:HG12	1.92	0.51
2:B:157:PHE:O	2:B:161:LEU:N	2.26	0.51
2:B:186:ASP:HA	2:B:196:ALA:O	2.11	0.51
1:C:94:GLU:HB3	1:C:118:ILE:HA	1.93	0.51
1:C:256:ASN:N	1:C:256:ASN:OD1	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:174:THR:O	2:D:230:LEU:HB2	2.11	0.51
2:F:105:ALA:HA	2:F:108:HIS:HD2	1.75	0.51
2:F:203:ILE:O	2:F:205:PRO:HD3	2.10	0.51
1:G:134:GLU:H	1:G:134:GLU:CD	2.14	0.51
1:G:199:ALA:O	1:G:233:PRO:HG3	2.10	0.51
2:H:137:TYR:O	2:H:331:LYS:NZ	2.31	0.51
2:J:0:LYS:HZ1	2:J:332:TRP:HB2	1.75	0.51
2:J:149:CYS:HB3	2:J:317:TYR:CD2	2.46	0.51
2:J:275:ASP:OD1	2:J:295:SER:N	2.43	0.51
1:O:65:SER:HA	1:O:69:LYS:O	2.09	0.51
2:P:2:LYS:HA	2:P:26:ASP:O	2.11	0.51
2:P:203:ILE:O	2:P:205:PRO:HD3	2.10	0.51
2:P:277:PRO:HB2	2:R:194:ARG:HG3	1.92	0.51
1:Q:8:PHE:CZ	1:Q:13:ARG:HD2	2.46	0.51
2:R:17:ARG:O	2:R:19:GLY:N	2.31	0.51
2:R:242:LEU:HD11	2:R:244:VAL:HG13	1.93	0.51
1:A:182:GLN:HA	1:A:195:ARG:HB3	1.92	0.51
1:A:195:ARG:HH22	1:G:361:TYR:N	2.08	0.51
1:A:273:VAL:HG12	1:A:292:ILE:HB	1.92	0.51
2:B:121:PRO:HG3	2:B:148:SER:N	2.26	0.51
1:C:278:LEU:HB3	1:C:282:ASP:HB2	1.91	0.51
2:D:262:SER:HA	2:D:265:ASN:HD21	1.76	0.51
1:E:156:PRO:HG2	1:E:271:LEU:HD11	1.91	0.51
1:E:203:ILE:O	1:E:205:PRO:HD3	2.12	0.51
2:F:237:VAL:HG22	2:F:312:ASP:HA	1.93	0.51
2:F:306:LYS:HZ2	2:H:228:ILE:N	2.08	0.51
1:G:124:ASP:O	1:G:125:ILE:C	2.48	0.51
2:H:87:MET:N	2:H:87:MET:SD	2.84	0.51
2:H:116:VAL:O	2:H:144:ILE:HG12	2.10	0.51
2:H:179:THR:HG23	2:H:182:GLN:HE22	1.75	0.51
1:I:168:VAL:N	1:I:247:GLU:HG3	2.26	0.51
2:J:177:SER:OG	2:J:178:TYR:N	2.43	0.51
2:J:203:ILE:O	2:L:279:VAL:HG11	2.10	0.51
1:K:190:HIS:ND1	1:K:195:ARG:HB2	2.25	0.51
2:P:172:MET:SD	2:P:227:GLY:N	2.84	0.50
1:Q:5:ILE:O	1:Q:31:ASN:N	2.32	0.50
1:Q:355:ASP:O	1:Q:358:CYS:N	2.44	0.50
2:R:63:ALA:HB1	2:R:70:VAL:HB	1.93	0.50
2:R:149:CYS:HA	2:R:152:ASN:HD22	1.75	0.50
1:A:185:LEU:HD13	2:D:10:ARG:CZ	2.41	0.50
1:A:216:LEU:CD1	1:G:124:ASP:HB2	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:281:VAL:HB	1:C:202:ASN:HD21	1.75	0.50
2:B:151:THR:HG23	2:B:210:ALA:HA	1.93	0.50
1:C:172:MET:SD	1:C:240:VAL:HB	2.52	0.50
1:C:300:MET:HG2	1:C:304:MET:SD	2.51	0.50
2:D:120:ALA:O	2:D:145:SER:OG	2.25	0.50
1:E:20:ARG:NH1	1:E:322:VAL:HG11	2.26	0.50
1:E:32:ASP:O	1:E:34:GLY:N	2.44	0.50
3:E:401:NAD:O2D	1:K:362:GLU:O	2.28	0.50
2:F:172:MET:SD	2:F:227:GLY:N	2.84	0.50
1:G:85:ALA:N	1:G:111:ALA:O	2.40	0.50
1:G:134:GLU:N	1:G:135:LYS:HZ1	2.08	0.50
1:G:156:PRO:O	1:G:160:VAL:N	2.36	0.50
2:H:218:LEU:HD22	2:H:221:LEU:HD13	1.92	0.50
2:H:276:GLU:OE1	2:H:276:GLU:N	2.33	0.50
1:I:78:ASP:OD1	1:I:81:LYS:N	2.36	0.50
1:I:142:ASN:N	1:I:142:ASN:OD1	2.43	0.50
2:J:148:SER:O	2:J:152:ASN:N	2.21	0.50
1:K:313:ASN:O	1:K:317:TYR:HB2	2.11	0.50
2:P:7:GLY:O	2:P:9:GLY:N	2.44	0.50
2:P:221:LEU:H	2:P:221:LEU:HD12	1.76	0.50
1:Q:174:THR:HB	1:Q:240:VAL:HG23	1.93	0.50
1:Q:186:ASP:HA	1:Q:197:ARG:HA	1.94	0.50
2:B:64:ILE:N	2:B:71:ILE:O	2.44	0.50
2:B:117:LEU:HA	2:B:144:ILE:O	2.10	0.50
2:B:134:GLU:HG3	2:B:327:ILE:HD13	1.94	0.50
1:C:20:ARG:CZ	1:C:20:ARG:HA	2.41	0.50
2:D:123:GLY:O	2:D:125:ILE:N	2.44	0.50
2:D:293:ASP:H	2:D:308:ILE:HB	1.76	0.50
2:F:7:GLY:HA3	2:F:96:THR:HA	1.92	0.50
2:F:30:ILE:N	2:F:72:LYS:O	2.42	0.50
1:G:169:LYS:HB2	1:G:245:ASN:HD21	1.77	0.50
1:G:183:ARG:NE	1:G:188:SER:HB2	2.21	0.50
2:H:139:HIS:CE1	2:H:334:UNK:H	2.29	0.50
1:I:13:ARG:HA	1:I:16:LEU:HB3	1.93	0.50
1:I:194:ARG:NH1	1:I:205:PRO:O	2.45	0.50
2:J:312:ASP:OD1	2:J:315:TRP:N	2.43	0.50
1:K:17:ARG:HD2	1:K:44:LEU:HD12	1.93	0.50
1:K:39:SER:O	1:K:43:LEU:N	2.26	0.50
1:K:203:ILE:O	1:K:205:PRO:HD3	2.11	0.50
1:K:281:VAL:HG12	1:K:284:ARG:HD3	1.92	0.50
2:L:44:LEU:HD23	2:L:57:VAL:HG23	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:132:VAL:HG11	2:L:217:VAL:HG23	1.93	0.50
2:L:173:THR:HA	2:L:228:ILE:O	2.11	0.50
1:O:22:ASP:O	1:O:24:PRO:HD3	2.11	0.50
1:O:202:ASN:OD1	1:Q:281:VAL:N	2.31	0.50
3:O:401:NAD:H52N	3:O:401:NAD:O5B	2.11	0.50
2:P:28:VAL:C	2:P:71:ILE:HG23	2.32	0.50
2:P:102:ARG:NH2	2:P:125:ILE:HA	2.27	0.50
1:Q:13:ARG:HH12	1:Q:43:LEU:HD13	1.77	0.50
1:Q:82:LEU:HD12	1:Q:108:HIS:CE1	2.46	0.50
1:Q:238:SER:HB3	1:Q:313:ASN:HB3	1.94	0.50
1:Q:279:VAL:HG12	1:Q:282:ASP:OD1	2.12	0.50
2:R:7:GLY:N	2:R:31:ASN:O	2.45	0.50
2:B:60:ALA:O	2:B:63:ALA:HB3	2.10	0.50
2:B:292:ILE:HG23	2:B:308:ILE:O	2.12	0.50
1:C:248(A):VAL:HG22	1:C:249:GLY:N	2.25	0.50
2:D:173:THR:HA	2:D:228:ILE:O	2.12	0.50
2:D:312:ASP:CG	2:D:316:GLY:H	2.15	0.50
1:E:3:VAL:O	1:E:27:VAL:HA	2.12	0.50
1:E:194:ARG:NH1	1:E:205:PRO:HB2	2.27	0.50
2:F:126:PRO:HB2	2:F:128:TYR:CE2	2.46	0.50
2:F:258:ALA:O	2:F:262:SER:OG	2.16	0.50
2:H:17:ARG:HG2	2:H:53:PHE:CE2	2.46	0.50
2:H:242:LEU:HD11	2:H:244:VAL:HG13	1.94	0.50
2:H:297:THR:HG22	2:H:308:ILE:H	1.76	0.50
2:H:317:TYR:O	2:H:321:VAL:N	2.31	0.50
1:I:5:ILE:HA	1:I:93:ILE:HB	1.93	0.50
1:I:301:GLY:N	1:I:304:MET:O	2.41	0.50
2:J:302:ASP:N	2:J:302:ASP:OD1	2.43	0.50
1:K:229:ALA:O	1:K:230:LEU:HD13	2.11	0.50
2:L:1:LEU:HD11	2:L:332:TRP:CE3	2.47	0.50
2:L:236:ASN:ND2	2:L:237:VAL:H	2.09	0.50
1:O:19:GLY:O	1:O:20:ARG:C	2.49	0.50
1:O:174:THR:HG1	1:O:239:VAL:C	2.15	0.50
1:O:179:THR:H	1:O:182:GLN:CD	2.11	0.50
1:O:358:CYS:HA	1:C:190:HIS:CE1	2.47	0.50
2:P:11:ILE:HD11	3:P:401:NAD:H2N	1.92	0.50
1:Q:190:HIS:CE1	1:Q:195:ARG:HH11	2.28	0.50
1:A:63:THR:OG1	1:A:72:LYS:HD3	2.11	0.50
2:B:277:PRO:HB2	2:D:194:ARG:CG	2.42	0.50
1:C:13:ARG:HB2	1:C:44:LEU:HD12	1.93	0.50
1:C:184:LEU:HG	1:C:185:LEU:HG	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:237:VAL:CG1	1:C:280:SER:HB3	2.25	0.50
2:D:38:LYS:HZ2	2:D:38:LYS:H	1.58	0.50
2:D:115:LYS:HE2	2:D:142:THR:HB	1.94	0.50
2:D:117:LEU:HD12	2:D:144:ILE:HD11	1.93	0.50
1:E:137:TYR:OH	1:E:328:VAL:HA	2.11	0.50
1:E:192:ASP:O	1:E:196:ALA:N	2.31	0.50
2:F:58:LYS:O	2:F:65:SER:N	2.44	0.50
2:F:271:LEU:HD13	2:F:289:SER:HG	1.77	0.50
1:G:105:ALA:HA	1:G:108:HIS:CD2	2.46	0.50
1:G:139:HIS:C	1:G:140:VAL:H	2.15	0.50
1:I:28:VAL:O	1:I:72:LYS:N	2.44	0.50
1:I:246:ILE:HG22	1:I:303:ASP:OD1	2.11	0.50
2:J:6:ASN:HB2	2:J:84:TRP:CZ2	2.45	0.50
2:J:173:THR:HA	2:J:228:ILE:O	2.11	0.50
1:K:134:GLU:HG2	1:K:135:LYS:H	1.76	0.50
2:L:105:ALA:HA	2:L:108:HIS:CD2	2.46	0.50
2:L:177:SER:OG	2:L:234:THR:O	2.23	0.50
2:P:15:PHE:HE2	2:P:321:VAL:HB	1.76	0.50
2:R:116:VAL:O	2:R:144:ILE:HG12	2.10	0.50
2:R:139:HIS:CE1	2:R:334:UNK:H	2.29	0.50
1:A:8:PHE:CD1	1:A:13:ARG:HG2	2.46	0.50
1:C:17:ARG:HG2	1:C:53:PHE:CD2	2.46	0.50
1:C:37:VAL:HA	1:C:40:ALA:HB3	1.93	0.50
1:C:78:ASP:HB3	1:C:81:LYS:HE2	1.93	0.50
1:C:128:TYR:HE2	1:C:144:ILE:HG21	1.76	0.50
1:C:213:ALA:O	1:C:216:LEU:HB2	2.11	0.50
1:E:57:VAL:HG13	1:E:64:PHE:HB2	1.94	0.50
2:F:105:ALA:HA	2:F:108:HIS:CD2	2.47	0.50
1:G:2:LYS:HB2	1:G:90:ASP:OD1	2.11	0.50
1:G:239:VAL:HB	1:G:310:TRP:CD2	2.47	0.50
1:I:13:ARG:NE	1:I:43:LEU:HB3	2.26	0.50
1:I:213:ALA:O	1:I:216:LEU:HB2	2.12	0.50
1:K:142:ASN:ND2	1:K:143:ILE:H	2.09	0.50
2:L:7:GLY:O	2:L:9:GLY:N	2.45	0.50
2:L:141:ASP:OD1	2:L:141:ASP:N	2.42	0.50
2:P:32:ASP:OD1	2:P:33:THR:N	2.44	0.50
2:P:99:PHE:CD1	2:P:104:GLY:HA3	2.46	0.50
2:P:139:HIS:CD2	2:P:333:GLN:HB2	2.47	0.50
2:P:149:CYS:HA	2:P:152:ASN:HB3	1.93	0.50
2:P:306:LYS:HZ2	2:R:228:ILE:N	2.10	0.50
1:Q:2:LYS:HB2	1:Q:90:ASP:N	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:2:LYS:HA	2:R:26:ASP:O	2.11	0.50
1:A:60:ILE:H	1:A:64:PHE:HB2	1.76	0.50
1:A:215:SER:HB2	1:A:221:LEU:HB3	1.94	0.50
1:A:220:GLN:OE1	1:A:220:GLN:N	2.45	0.50
2:B:36:GLY:HA3	2:B:38:LYS:HZ1	1.76	0.50
2:B:300:MET:HB2	2:B:304:MET:HG2	1.94	0.50
2:B:302:ASP:N	2:B:302:ASP:OD1	2.44	0.50
1:C:160:VAL:HG22	1:C:259:PHE:HE1	1.76	0.50
2:D:293:ASP:OD1	2:D:295:SER:OG	2.21	0.50
1:E:41:THR:O	1:E:45:LYS:N	2.42	0.50
1:E:127:THR:OG1	1:E:128:TYR:N	2.44	0.50
1:E:156:PRO:O	1:E:159:LYS:HB3	2.12	0.50
1:E:174:THR:HG1	1:E:239:VAL:C	2.13	0.50
2:F:30:ILE:HG22	2:F:31:ASN:H	1.76	0.50
2:F:120:ALA:HA	3:F:401:NAD:H5N	1.93	0.50
1:G:161:LEU:O	1:G:166:GLY:N	2.45	0.50
2:H:102:ARG:HH22	2:H:125:ILE:HA	1.77	0.50
1:I:62:GLU:O	1:I:73:VAL:N	2.43	0.50
1:I:238:SER:HB3	1:I:311:TYR:CE2	2.45	0.50
2:J:120:ALA:O	2:J:145:SER:OG	2.30	0.50
2:J:269:GLY:O	2:J:288:VAL:HA	2.12	0.50
2:L:240:VAL:HG13	2:L:309:ALA:HB3	1.93	0.50
2:L:318:SER:O	2:L:322:VAL:HG23	2.11	0.50
1:O:1:LEU:HD21	1:O:90:ASP:HB2	1.92	0.50
2:P:190:HIS:ND1	2:P:195:ARG:HB2	2.26	0.50
1:Q:114:LYS:HB3	1:Q:115:LYS:HD2	1.93	0.50
2:R:106:GLY:O	2:R:109:LEU:N	2.44	0.50
2:R:312:ASP:HB3	2:R:316:GLY:H	1.76	0.50
1:A:195:ARG:NH2	1:G:361:TYR:HA	2.26	0.50
1:A:237:VAL:HA	1:A:312:ASP:HA	1.94	0.50
2:B:5:ILE:HD12	2:B:93:ILE:HB	1.94	0.50
2:B:102:ARG:HG3	2:B:143:ILE:HD12	1.93	0.50
2:D:2:LYS:N	2:D:90:ASP:OD2	2.45	0.50
2:D:215:ALA:O	2:D:222:LYS:NZ	2.44	0.50
1:E:291:THR:O	1:E:310:TRP:HD1	1.95	0.50
1:E:316:GLY:O	1:E:320:ARG:N	2.37	0.50
2:H:106:GLY:O	2:H:109:LEU:N	2.45	0.50
2:J:66:VAL:N	2:J:69:LYS:O	2.43	0.50
2:J:280:SER:N	2:L:202:ASN:HD22	2.09	0.50
1:K:38:LYS:O	1:K:41:THR:OG1	2.29	0.50
1:K:78:ASP:HB3	1:K:81:LYS:HZ3	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:168:VAL:HG23	1:K:247:GLU:HA	1.93	0.50
2:L:208:THR:HG22	2:L:229:ALA:HB2	1.93	0.50
2:L:312:ASP:CG	2:L:316:GLY:H	2.15	0.50
2:P:157:PHE:HB2	2:P:259:PHE:CZ	2.46	0.50
1:Q:134:GLU:CD	1:Q:134:GLU:H	2.15	0.50
1:Q:251:THR:OG1	1:Q:252:ALA:N	2.45	0.50
2:R:120:ALA:HB2	3:R:401:NAD:C1D	2.22	0.50
2:R:154:LEU:HA	2:R:157:PHE:CZ	2.47	0.50
1:A:236:ASN:ND2	1:A:312:ASP:OD2	2.43	0.50
2:B:45:LYS:HG3	2:B:46:TYR:CZ	2.47	0.50
2:B:253:GLU:CD	2:B:256:ASN:HB2	2.32	0.50
2:B:316:GLY:HA2	2:B:319:GLN:HB2	1.92	0.50
2:D:177:SER:OG	2:D:234:THR:O	2.19	0.50
1:E:274:CYS:SG	1:E:276:ILE:N	2.84	0.50
1:E:298:MET:SD	1:G:226:ASN:ND2	2.85	0.50
1:E:313:ASN:OD1	1:E:313:ASN:N	2.44	0.50
2:F:17:ARG:NH2	2:F:53:PHE:HA	2.26	0.50
1:G:157:PHE:HA	1:G:160:VAL:HB	1.93	0.50
1:G:182:GLN:O	1:G:183:ARG:NH2	2.45	0.50
1:I:173:THR:HA	1:I:228:ILE:O	2.11	0.50
1:I:274:CYS:O	1:I:293:ASP:HA	2.12	0.50
2:J:94:GLU:OE2	2:J:98:VAL:N	2.43	0.50
2:J:134:GLU:HG3	2:J:327:ILE:HD13	1.94	0.50
1:K:161:LEU:HD23	1:K:165:LEU:HB2	1.94	0.50
2:L:11:ILE:O	2:L:15:PHE:N	2.39	0.50
1:O:118:ILE:O	1:O:317:TYR:OH	2.21	0.50
1:O:149:CYS:O	1:O:153:CYS:N	2.45	0.50
2:P:126:PRO:HB2	2:P:128:TYR:CZ	2.47	0.50
1:Q:62:GLU:O	1:Q:63:THR:HB	2.12	0.50
1:Q:178:TYR:HD2	1:Q:233:PRO:HA	1.77	0.50
1:Q:328:VAL:HG12	1:Q:332:TRP:HD1	1.77	0.50
1:Q:360:LEU:HA	1:I:190:HIS:HD2	1.69	0.50
1:A:9:GLY:O	1:A:12:GLY:N	2.45	0.50
2:B:138:THR:OG1	2:B:141:ASP:OD1	2.26	0.50
2:B:149:CYS:HB3	2:B:317:TYR:CD2	2.46	0.50
2:B:243:VAL:HA	2:B:306:LYS:HA	1.93	0.50
1:C:125:ILE:HG23	1:C:144:ILE:HA	1.93	0.50
1:C:128:TYR:HA	1:C:133:ASN:ND2	2.27	0.50
1:C:246:ILE:N	1:C:303:ASP:O	2.44	0.50
1:C:270:VAL:HG13	1:C:320:ARG:CD	2.42	0.50
1:C:329:ALA:HA	1:C:332:TRP:CD1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:329:ALA:HA	1:C:332:TRP:HD1	1.77	0.50
1:E:15:PHE:O	1:E:18(A):TRP:N	2.42	0.50
1:E:204:VAL:N	1:E:231:ARG:O	2.44	0.50
1:E:248:LYS:HG2	1:E:248(A):VAL:H	1.77	0.50
1:E:272:ASP:O	1:E:290:SER:OG	2.24	0.50
1:E:287:ASP:OD1	1:E:287:ASP:N	2.33	0.50
2:F:151:THR:HG23	2:F:210:ALA:HA	1.94	0.50
1:G:82:LEU:HD12	1:G:108:HIS:HE1	1.75	0.50
1:G:82:LEU:HD12	1:G:108:HIS:CE1	2.47	0.50
1:G:251:THR:HG1	1:G:252:ALA:H	1.60	0.50
1:G:251:THR:OG1	1:G:253:GLU:OE1	2.19	0.50
1:G:297:THR:HA	1:G:307:VAL:HG23	1.94	0.50
2:H:38:LYS:NZ	2:H:39:GLN:H	2.10	0.50
2:H:193:LEU:HA	2:H:196:ALA:HB3	1.93	0.50
1:I:100:VAL:HG11	1:I:121:PRO:O	2.12	0.50
1:I:170:GLY:O	1:I:225:LEU:HA	2.12	0.50
1:I:314:GLU:HA	3:I:401:NAD:H72N	1.77	0.50
2:J:60:ALA:O	2:J:63:ALA:HB3	2.12	0.50
2:J:76:ASP:HB3	2:J:82:LEU:HD21	1.94	0.50
2:J:109:LEU:HD21	2:J:116:VAL:HG23	1.93	0.50
2:J:124:ASP:O	2:J:125:ILE:HD12	2.12	0.50
1:K:117:ILE:HG23	1:K:144:ILE:HG13	1.94	0.50
1:K:281:VAL:HG23	1:K:282:ASP:OD1	2.11	0.50
2:L:15:PHE:CD1	2:L:322:VAL:HG22	2.47	0.50
2:L:179:THR:HG23	2:L:182:GLN:HE22	1.76	0.50
1:O:11:ILE:HD12	1:O:14:ASN:HD21	1.77	0.49
1:O:103:PRO:O	1:O:107:LYS:HG3	2.12	0.49
1:O:357:GLU:O	1:C:190:HIS:HA	2.12	0.49
2:P:18:CYS:HB3	2:P:322:VAL:HG21	1.94	0.49
2:P:117:LEU:HG	2:P:145:SER:HA	1.94	0.49
1:A:5:ILE:HB	1:A:30:VAL:HG22	1.93	0.49
1:A:6:ASN:N	1:A:93:ILE:O	2.36	0.49
1:A:162:ASP:HA	1:A:166:GLY:H	1.77	0.49
1:C:82:LEU:HB3	1:C:84:TRP:CE2	2.47	0.49
2:D:174:THR:HG23	2:D:230:LEU:H	1.76	0.49
2:D:190:HIS:HB3	2:D:196:ALA:HB2	1.94	0.49
2:F:18:CYS:HB3	2:F:322:VAL:HG21	1.94	0.49
2:F:236:ASN:OD1	2:F:284:ARG:NH1	2.45	0.49
2:F:239:VAL:HG13	2:F:310:TRP:CD2	2.47	0.49
1:G:280:SER:O	1:G:283:PHE:N	2.32	0.49
2:H:149:CYS:HA	2:H:152:ASN:HD22	1.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:119:THR:O	1:I:119:THR:OG1	2.30	0.49
2:J:127:THR:HG23	2:J:133:ASN:HD22	1.77	0.49
2:J:132:VAL:HG11	2:J:217:VAL:HB	1.93	0.49
2:J:326:ASP:O	2:J:330:ASN:N	2.39	0.49
1:K:5:ILE:HD12	1:K:93:ILE:O	2.12	0.49
1:K:62:GLU:HG2	1:K:72:LYS:HE2	1.94	0.49
1:K:100:VAL:O	1:K:122:ALA:HB1	2.12	0.49
1:O:33:SER:OG	1:O:77:ARG:HD3	2.11	0.49
1:O:318:SER:OG	1:O:319:GLN:N	2.44	0.49
2:R:1:LEU:HB3	2:R:25:LEU:HD13	1.93	0.49
2:R:102:ARG:NH2	2:R:125:ILE:HA	2.27	0.49
2:B:124:ASP:O	2:B:125:ILE:HD12	2.12	0.49
2:B:197:ARG:HH11	1:C:42:HIS:HE1	1.60	0.49
2:B:250:THR:OG1	2:B:251:PHE:N	2.45	0.49
1:E:8:PHE:CB	1:E:32:ASP:OD2	2.60	0.49
1:G:82:LEU:O	1:G:84:TRP:HD1	1.95	0.49
2:H:99:PHE:CD1	2:H:104:GLY:HA3	2.46	0.49
2:H:117:LEU:HA	2:H:144:ILE:O	2.11	0.49
2:H:312:ASP:HB3	2:H:316:GLY:H	1.76	0.49
1:I:177:SER:HB3	1:I:237:VAL:H	1.78	0.49
1:I:203:ILE:CD1	1:I:230:LEU:HB3	2.43	0.49
1:I:246:ILE:HG23	1:I:248:LYS:H	1.78	0.49
2:J:45:LYS:HZ3	2:J:55:ALA:C	2.16	0.49
2:J:60:ALA:HB2	2:J:65:SER:HB3	1.94	0.49
2:J:146:ASN:HD22	2:J:321:VAL:HG22	1.77	0.49
2:J:316:GLY:HA2	2:J:319:GLN:HB2	1.94	0.49
1:K:102:GLY:N	1:K:103:PRO:HD2	2.28	0.49
1:K:171:THR:C	1:K:242:LEU:HD12	2.33	0.49
1:K:241:ASP:HA	1:K:307:VAL:O	2.12	0.49
2:L:126:PRO:HG2	2:L:144:ILE:HG22	1.93	0.49
2:P:173:THR:OG1	2:P:228:ILE:HG13	2.13	0.49
1:Q:256:ASN:HA	1:Q:259:PHE:CD2	2.48	0.49
1:A:190:HIS:CE1	1:A:191:ARG:HE	2.30	0.49
1:A:190:HIS:CE1	1:G:359:LYS:H	2.30	0.49
2:B:44:LEU:O	2:B:53:PHE:HB2	2.12	0.49
2:B:177:SER:OG	2:B:178:TYR:N	2.44	0.49
2:B:283:PHE:N	2:B:283:PHE:CD1	2.80	0.49
1:C:172:MET:HG2	1:C:242:LEU:HB2	1.94	0.49
1:E:20:ARG:HD2	1:E:322:VAL:CG1	2.41	0.49
1:E:118:ILE:HD12	1:E:122:ALA:HB2	1.94	0.49
2:F:102:ARG:NH2	2:F:125:ILE:HA	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:103:ASP:HB2	2:F:107:LYS:HZ3	1.78	0.49
2:F:221:LEU:HD12	2:F:221:LEU:H	1.76	0.49
2:H:17:ARG:O	2:H:19:GLY:N	2.32	0.49
2:H:45:LYS:NZ	2:H:53:PHE:O	2.31	0.49
2:H:281:ILE:O	2:H:283:PHE:N	2.44	0.49
1:I:242:LEU:N	1:I:307:VAL:O	2.30	0.49
2:J:255:VAL:O	2:J:259:PHE:N	2.31	0.49
1:K:238:SER:O	1:K:311:TYR:N	2.42	0.49
2:L:139:HIS:CG	2:L:333:GLN:H	2.29	0.49
1:O:3:VAL:HG22	1:O:91:ILE:HB	1.94	0.49
1:O:226:ASN:ND2	1:O:227:GLY:H	2.11	0.49
1:O:238:SER:HB2	1:O:311:TYR:CZ	2.46	0.49
1:Q:92:VAL:HB	1:Q:116:VAL:HA	1.95	0.49
1:Q:234:THR:OG1	1:Q:237:VAL:N	2.44	0.49
2:R:302:ASP:N	2:R:302:ASP:OD1	2.45	0.49
1:A:17:ARG:HH21	1:A:50:LEU:HB3	1.78	0.49
1:A:178:TYR:CD2	1:A:233:PRO:HA	2.47	0.49
2:B:17:ARG:NH2	2:B:52:THR:O	2.44	0.49
2:B:109:LEU:HD21	2:B:116:VAL:HG23	1.93	0.49
2:B:125:ILE:HD11	2:B:143:ILE:HG22	1.95	0.49
2:B:181:ASP:OD2	2:B:182:GLN:NE2	2.46	0.49
2:D:15:PHE:CZ	2:D:322:VAL:HA	2.47	0.49
2:D:45:LYS:HB2	2:D:57:VAL:HG11	1.94	0.49
2:D:170:GLY:HA2	2:D:244:VAL:HA	1.94	0.49
1:E:176:HIS:C	1:E:231:ARG:HA	2.33	0.49
2:F:317:TYR:O	2:F:321:VAL:HG23	2.12	0.49
1:G:10:ARG:HA	1:G:13:ARG:NE	2.27	0.49
1:G:176:HIS:N	1:G:230:LEU:O	2.39	0.49
2:H:204:VAL:O	2:H:230:LEU:HA	2.13	0.49
1:I:8:PHE:CD1	1:I:13:ARG:HG2	2.47	0.49
1:I:270:VAL:HG13	1:I:320:ARG:HH12	1.76	0.49
1:I:290:SER:HG	1:I:292:ILE:HG12	1.77	0.49
2:J:96:THR:HG22	3:J:401:NAD:C4A	2.42	0.49
2:J:115:LYS:HD2	2:J:142:THR:HA	1.94	0.49
1:K:50:LEU:HD12	1:K:285:CYS:SG	2.52	0.49
1:K:276:ILE:O	1:K:278:LEU:HD22	2.11	0.49
1:O:103:PRO:HG3	1:C:110:GLN:HA	1.94	0.49
1:O:105:ALA:HA	1:O:108:HIS:HD2	1.78	0.49
1:Q:9:GLY:O	1:Q:13:ARG:N	2.39	0.49
1:Q:32:ASP:O	1:Q:34:GLY:N	2.45	0.49
1:Q:38:LYS:C	1:Q:42:HIS:CE1	2.86	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:107:LYS:HD3	1:I:141:ALA:HA	1.94	0.49
1:Q:154:LEU:HB2	1:Q:214:VAL:HG11	1.93	0.49
1:Q:256:ASN:HB2	1:Q:260:ARG:HH21	1.77	0.49
1:Q:283:PHE:CD1	1:Q:283:PHE:N	2.81	0.49
2:R:79:PRO:HB3	2:R:108:HIS:ND1	2.28	0.49
2:B:139:HIS:CG	2:B:333:GLN:H	2.30	0.49
2:B:173:THR:HA	2:B:228:ILE:O	2.12	0.49
2:B:193:LEU:HD13	2:D:277:PRO:HG3	1.94	0.49
2:B:281:ILE:HG13	2:B:284:ARG:HH21	1.77	0.49
2:D:126:PRO:HG2	2:D:144:ILE:HG22	1.93	0.49
2:D:139:HIS:CG	2:D:333:GLN:H	2.30	0.49
2:F:44:LEU:HG	2:F:53:PHE:HD2	1.78	0.49
2:F:94:GLU:OE2	2:F:96:THR:OG1	2.22	0.49
2:F:184:LEU:HD13	1:G:184:LEU:HA	1.93	0.49
2:F:190:HIS:ND1	2:F:195:ARG:HB2	2.27	0.49
1:G:175:THR:HG21	1:G:239:VAL:HG13	1.93	0.49
1:G:287:ASP:HA	1:G:319:GLN:OE1	2.13	0.49
2:J:253:GLU:CD	2:J:256:ASN:HB2	2.33	0.49
2:J:257:ALA:O	2:J:260:ARG:HB2	2.13	0.49
2:J:277:PRO:HB2	2:L:194:ARG:HG2	1.95	0.49
1:K:82:LEU:O	1:K:84:TRP:N	2.44	0.49
1:K:272:ASP:O	1:K:292:ILE:N	2.41	0.49
1:O:41:THR:HG21	1:O:59:ILE:HD11	1.93	0.49
1:O:172:MET:O	1:Q:306:LYS:NZ	2.46	0.49
1:O:280:SER:HA	1:O:310:TRP:HZ3	1.77	0.49
1:O:349:CYS:SG	1:O:353:PRO:HA	2.53	0.49
2:P:5:ILE:HB	2:P:30:ILE:HG23	1.93	0.49
2:P:115:LYS:HE3	2:P:139:HIS:CE1	2.47	0.49
1:Q:37:VAL:HG23	1:Q:61:ASN:O	2.13	0.49
1:Q:100:VAL:HG12	1:Q:120:ALA:HB1	1.93	0.49
1:Q:176:HIS:HB3	1:Q:231:ARG:HD3	1.95	0.49
1:A:133:ASN:HA	1:A:136:ASP:CG	2.33	0.49
2:B:77:ARG:HD2	3:B:401:NAD:N6A	2.28	0.49
2:B:94:GLU:HB3	2:B:118:ILE:HD12	1.95	0.49
2:B:127:THR:HG23	2:B:133:ASN:HD22	1.77	0.49
2:B:259:PHE:O	2:B:262:SER:OG	2.23	0.49
1:C:79:PRO:HA	1:C:82:LEU:HD11	1.93	0.49
1:C:82:LEU:O	1:C:84:TRP:N	2.43	0.49
2:D:7:GLY:O	2:D:9:GLY:N	2.45	0.49
2:D:42:HIS:O	2:D:46:TYR:N	2.39	0.49
2:D:132:VAL:HG11	2:D:217:VAL:HG23	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:173:THR:O	2:D:241:ASP:N	2.45	0.49
2:D:276:GLU:H	2:D:276:GLU:CD	2.15	0.49
2:F:183:ARG:NH2	2:F:191:ARG:HH12	2.08	0.49
1:G:12:GLY:O	1:G:16:LEU:N	2.22	0.49
1:G:272:ASP:HB2	1:G:288:PHE:CD2	2.47	0.49
1:I:2:LYS:HB2	1:I:90:ASP:H	1.77	0.49
1:I:129:VAL:N	1:I:133:ASN:OD1	2.25	0.49
1:I:156:PRO:HB3	1:I:271:LEU:HD21	1.93	0.49
1:K:80:LEU:HD23	1:K:107:LYS:HB3	1.95	0.49
2:L:186:ASP:CG	2:L:198:ALA:H	2.16	0.49
1:O:45:LYS:O	1:O:53:PHE:N	2.45	0.49
1:O:123(A):SER:N	1:C:142:ASN:OD1	2.26	0.49
1:O:165:LEU:O	1:O:248:LYS:HB2	2.13	0.49
1:O:178:TYR:CE1	1:O:235:PRO:HA	2.48	0.49
2:P:132:VAL:HG11	2:P:217:VAL:HB	1.93	0.49
2:P:251:PHE:N	2:P:254:GLU:OE1	2.23	0.49
1:Q:37:VAL:CG2	1:Q:61:ASN:O	2.61	0.49
1:Q:54:LYS:H	1:Q:54:LYS:HD2	1.76	0.49
1:Q:280:SER:HA	1:Q:310:TRP:CZ3	2.41	0.49
2:R:15:PHE:CE1	2:R:322:VAL:HG22	2.47	0.49
2:R:16:LEU:HD13	2:R:44:LEU:HD13	1.95	0.49
1:A:139:HIS:CE1	1:A:332:TRP:HA	2.48	0.49
2:B:11:ILE:O	2:B:15:PHE:N	2.25	0.49
2:B:157:PHE:HB2	2:B:259:PHE:CZ	2.48	0.49
2:B:251:PHE:N	2:B:254:GLU:OE1	2.43	0.49
2:B:327:ILE:HA	2:B:330:ASN:ND2	2.28	0.49
1:C:41:THR:HG21	1:C:59:ILE:HG12	1.95	0.49
1:C:66:ILE:N	1:C:69:LYS:O	2.34	0.49
2:D:15:PHE:CD1	2:D:322:VAL:HG22	2.48	0.49
2:D:236:ASN:ND2	2:D:237:VAL:H	2.09	0.49
1:E:18:CYS:O	1:E:19:GLY:C	2.51	0.49
1:E:243:VAL:HG12	1:E:306:LYS:HA	1.95	0.49
1:E:297:THR:HG22	1:E:308:VAL:H	1.77	0.49
2:F:8:PHE:N	2:F:32:ASP:OD2	2.45	0.49
2:F:46:TYR:O	1:G:197:ARG:NH1	2.45	0.49
2:F:154:LEU:HD12	2:F:155:ALA:N	2.28	0.49
2:F:173:THR:OG1	2:F:228:ILE:HG13	2.13	0.49
1:G:11:ILE:HA	1:G:14:ASN:ND2	2.28	0.49
1:G:58:LYS:N	1:G:65:SER:O	2.45	0.49
1:G:84:TRP:CH2	1:G:92:VAL:HG23	2.47	0.49
1:G:101:ASP:CG	1:G:104:GLY:H	2.16	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:279:VAL:HG23	1:G:282:ASP:OD1	2.13	0.49
1:G:294:SER:O	1:G:297:THR:OG1	2.18	0.49
1:I:325:ALA:HA	1:I:328:VAL:HB	1.94	0.49
1:I:328:VAL:HG22	1:I:331:LYS:HZ3	1.76	0.49
1:K:32:ASP:OD1	1:K:33:SER:N	2.44	0.49
1:K:45:LYS:HZ3	1:K:57:VAL:H	1.58	0.49
1:K:57:VAL:HG13	1:K:66:ILE:HA	1.93	0.49
1:K:241:ASP:OD1	1:K:242:LEU:N	2.46	0.49
1:K:293:ASP:O	1:K:297:THR:HG23	2.13	0.49
2:L:0:LYS:N	2:L:26:ASP:HB2	2.27	0.49
2:L:117:LEU:HD11	2:L:146:ASN:HB2	1.95	0.49
1:O:14:ASN:HA	1:O:17:ARG:HB2	1.95	0.49
1:O:139:HIS:CD2	1:O:332:TRP:HA	2.47	0.49
1:O:174:THR:HG23	1:O:176:HIS:N	2.27	0.49
1:O:193:LEU:HD11	2:R:42:HIS:ND1	2.28	0.49
2:P:49:ILE:HG23	2:P:284:ARG:HH11	1.78	0.49
1:Q:29:VAL:HA	1:Q:72:LYS:O	2.11	0.49
1:Q:270:VAL:O	1:Q:289:SER:N	2.46	0.49
2:R:215:ALA:O	2:R:222:LYS:NZ	2.43	0.49
2:B:4:ALA:HA	2:B:29:VAL:O	2.13	0.49
2:B:15:PHE:HE2	2:B:321:VAL:HG12	1.78	0.49
2:B:132:VAL:HG11	2:B:217:VAL:HB	1.94	0.49
2:B:160:VAL:HA	2:B:163:GLN:HB2	1.95	0.49
2:B:285:CYS:HA	2:B:315:TRP:CD1	2.48	0.49
1:C:91:ILE:HG12	1:C:115:LYS:N	2.28	0.49
2:D:243:VAL:HA	2:D:306:LYS:HA	1.94	0.49
1:E:178:TYR:CD2	1:E:233:PRO:HA	2.47	0.49
2:F:36:GLY:H	2:F:39:GLN:NE2	2.11	0.49
1:G:94:GLU:OE2	1:G:96:THR:OG1	2.26	0.49
1:G:280:SER:HA	1:G:310:TRP:HZ3	1.76	0.49
2:H:15:PHE:CZ	2:H:322:VAL:HA	2.48	0.49
2:H:160:VAL:O	2:H:164:LYS:N	2.28	0.49
2:H:179:THR:H	2:H:182:GLN:CD	2.16	0.49
2:H:194:ARG:HD3	2:H:205:PRO:HD2	1.94	0.49
1:I:139:HIS:HB2	1:I:331:LYS:HB2	1.95	0.49
2:J:94:GLU:HG2	2:J:96:THR:H	1.77	0.49
2:J:116:VAL:HB	2:J:143:ILE:HG12	1.95	0.49
2:J:129:VAL:HG13	2:J:132:VAL:HB	1.95	0.49
2:J:157:PHE:HB2	2:J:259:PHE:CZ	2.48	0.49
2:J:183:ARG:NH2	2:J:191:ARG:HH12	2.10	0.49
1:K:31:ASN:HA	1:K:74:VAL:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:121:PRO:HG3	1:K:148:SER:H	1.78	0.49
1:O:3:VAL:O	1:O:27:VAL:HA	2.13	0.49
1:O:17:ARG:CZ	1:O:53:PHE:HB2	2.42	0.49
1:O:149:CYS:HA	1:O:152:ASN:HB2	1.94	0.49
1:O:167:ILE:HB	1:O:224:LYS:HZ3	1.76	0.49
1:O:243:VAL:HA	1:O:305:VAL:O	2.13	0.49
1:O:254:ASP:HA	1:O:257:ASN:ND2	2.28	0.49
2:P:1:LEU:N	2:P:24:PRO:O	2.33	0.49
2:P:151:THR:HG23	2:P:210:ALA:HA	1.94	0.49
1:Q:57:VAL:HA	1:Q:66:ILE:HA	1.94	0.49
1:Q:238:SER:OG	1:Q:313:ASN:N	2.42	0.49
1:Q:282:ASP:OD1	1:Q:282:ASP:N	2.44	0.49
1:Q:291:THR:O	1:Q:310:TRP:HD1	1.96	0.49
2:R:37:VAL:HG23	2:R:38:LYS:H	1.78	0.49
2:R:149:CYS:HB3	2:R:317:TYR:CD2	2.48	0.49
1:A:49:ILE:HG23	1:A:284:ARG:NE	2.28	0.49
1:A:207:SER:HB3	1:A:228:ILE:HG22	1.95	0.49
1:A:226:ASN:HB3	1:C:300:MET:HB2	1.94	0.49
1:A:312:ASP:OD1	1:A:316:GLY:N	2.25	0.49
2:B:255:VAL:O	2:B:259:PHE:N	2.33	0.49
2:B:269:GLY:O	2:B:288:VAL:HA	2.13	0.49
1:C:261:LYS:HZ2	1:C:261:LYS:C	2.14	0.49
2:D:17:ARG:HG2	2:D:53:PHE:HE2	1.78	0.49
2:D:41:SER:OG	2:D:42:HIS:N	2.46	0.49
2:D:166:GLY:O	2:D:247:SER:N	2.29	0.49
2:D:250:THR:N	2:D:302:ASP:HB3	2.16	0.49
1:E:319:GLN:O	1:E:322:VAL:HB	2.13	0.49
2:F:99:PHE:CD1	2:F:104:GLY:HA3	2.48	0.49
1:G:242:LEU:HD11	1:G:244:VAL:HG13	1.94	0.49
2:H:169:LYS:O	2:H:245:GLN:N	2.36	0.49
2:H:181:ASP:OD2	2:H:195:ARG:NE	2.45	0.49
1:I:10:ARG:HA	1:I:13:ARG:HG3	1.95	0.49
1:I:332:TRP:CE3	1:I:333:PRO:HD2	2.48	0.49
2:J:171:THR:HB	2:L:306:LYS:HE3	1.94	0.49
1:K:118:ILE:O	1:K:146:ASN:N	2.35	0.49
2:P:30:ILE:HG22	2:P:31:ASN:H	1.77	0.49
2:P:44:LEU:HD21	2:P:53:PHE:HD2	1.78	0.49
2:P:79:PRO:HG3	2:P:108:HIS:CE1	2.47	0.49
1:Q:80:LEU:H	1:Q:107:LYS:NZ	2.10	0.49
1:Q:185:LEU:HA	1:Q:198:ALA:HB2	1.94	0.49
1:Q:220:GLN:OE1	1:Q:220:GLN:N	2.35	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:219:PRO:O	1:A:222:LYS:HD3	2.13	0.49
1:C:16:LEU:HA	1:C:18(A):TRP:CD1	2.46	0.49
1:C:21:LYS:HG2	1:C:22:ASP:N	2.28	0.49
1:C:256:ASN:ND2	1:C:297:THR:OG1	2.45	0.49
2:H:84:TRP:HA	2:H:89:ILE:HG12	1.95	0.49
2:H:94:GLU:HB3	2:H:118:ILE:HD11	1.94	0.49
2:H:139:HIS:HB2	2:H:333:GLN:HB2	1.95	0.49
2:H:149:CYS:HB3	2:H:317:TYR:CD2	2.48	0.49
2:H:222:LYS:O	2:H:224:LYS:HG2	2.13	0.49
1:I:135:LYS:NZ	1:I:135:LYS:H	2.11	0.49
1:I:256:ASN:O	1:I:260:ARG:N	2.28	0.49
2:J:17:ARG:NH2	2:J:52:THR:O	2.46	0.49
2:J:242:LEU:HB3	2:J:307:VAL:HG22	1.95	0.49
2:J:292:ILE:HG23	2:J:308:ILE:O	2.12	0.49
2:J:316:GLY:HA2	2:J:320:ARG:HH21	1.78	0.49
1:K:103:PRO:O	1:K:107:LYS:HG3	2.12	0.49
1:K:133:ASN:N	1:K:133:ASN:OD1	2.43	0.49
2:L:84:TRP:HD1	2:L:108:HIS:O	1.95	0.49
2:L:293:ASP:OD1	2:L:295:SER:OG	2.22	0.49
1:O:18(B):HIS:CD2	1:O:53:PHE:CZ	3.01	0.48
1:O:303:ASP:OD1	1:O:303:ASP:N	2.46	0.48
2:P:18(A):TRP:HE1	2:P:23:SER:HG	1.59	0.48
2:P:109:LEU:HD23	2:P:113:ALA:HB3	1.95	0.48
1:Q:130:VAL:HA	1:Q:134:GLU:HB3	1.95	0.48
1:Q:274:CYS:O	1:Q:294:SER:N	2.46	0.48
1:Q:293:ASP:OD2	1:Q:295:SER:OG	2.31	0.48
2:R:56:ASP:O	2:R:66:VAL:HA	2.12	0.48
2:R:318:SER:O	2:R:322:VAL:N	2.31	0.48
1:A:108:HIS:O	1:A:113:ALA:N	2.45	0.48
2:B:0:LYS:HZ2	2:B:1:LEU:HD22	1.77	0.48
2:B:102:ARG:O	2:B:106:GLY:N	2.35	0.48
1:C:161:LEU:HA	1:C:164:GLU:OE2	2.13	0.48
1:C:239:VAL:HA	1:C:309:ALA:O	2.13	0.48
1:C:272:ASP:N	1:C:290:SER:O	2.32	0.48
2:D:0:LYS:H2	2:D:26:ASP:HB2	1.78	0.48
1:E:121:PRO:HB3	1:E:147:ALA:HA	1.94	0.48
1:E:162:ASP:OD1	1:E:221:LEU:HD11	2.13	0.48
1:E:166:GLY:HA3	1:E:247:GLU:OE2	2.13	0.48
2:F:117:LEU:HG	2:F:145:SER:HA	1.95	0.48
2:H:15:PHE:CE1	2:H:322:VAL:HG22	2.48	0.48
2:H:272:SER:N	2:H:290:SER:O	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:132:VAL:HA	1:I:159:LYS:NZ	2.28	0.48
1:I:232:VAL:HG22	1:I:234:THR:HB	1.93	0.48
2:J:193:LEU:O	2:J:197:ARG:N	2.45	0.48
1:K:134:GLU:H	1:K:134:GLU:CD	2.14	0.48
1:K:238:SER:HB3	1:K:311:TYR:CE2	2.47	0.48
2:L:270:ILE:HA	2:L:320:ARG:NH1	2.28	0.48
1:O:28:VAL:C	1:O:71:ILE:HG23	2.34	0.48
1:O:154:LEU:HD12	1:O:155:ALA:N	2.27	0.48
1:O:264:ALA:O	1:O:268:LYS:HE2	2.13	0.48
1:O:272:ASP:HB2	1:O:288:PHE:CD2	2.47	0.48
2:P:94:GLU:OE2	2:P:96:THR:OG1	2.24	0.48
2:P:100:VAL:HG22	2:P:122(A):LYS:N	2.28	0.48
2:P:126:PRO:HB2	2:P:128:TYR:CE2	2.48	0.48
1:Q:272:ASP:O	1:Q:291:THR:HA	2.12	0.48
2:R:36:GLY:H	2:R:39:GLN:HE21	1.60	0.48
2:R:84:TRP:CD1	2:R:111:ALA:HB3	2.48	0.48
2:R:147:ALA:O	2:R:317:TYR:OH	2.31	0.48
1:A:36:GLY:HA3	1:A:38:LYS:HZ1	1.78	0.48
1:A:40:ALA:HA	1:A:43:LEU:HB2	1.95	0.48
1:A:142:ASN:H	1:A:142:ASN:ND2	2.11	0.48
1:A:160:VAL:HA	1:A:163:GLU:CD	2.33	0.48
2:B:193:LEU:H	2:B:193:LEU:HD12	1.77	0.48
1:C:38:LYS:O	1:C:41:THR:OG1	2.31	0.48
1:C:121:PRO:O	1:C:122(A):LYS:NZ	2.34	0.48
1:C:133:ASN:N	1:C:134:GLU:OE2	2.45	0.48
1:C:178:TYR:CE1	1:C:235:PRO:HA	2.48	0.48
2:D:121:PRO:HD3	2:D:148:SER:N	2.28	0.48
2:D:251:PHE:CE1	2:D:254:GLU:HB2	2.48	0.48
2:D:280:SER:HA	2:D:283:PHE:HD1	1.78	0.48
1:E:142:ASN:O	1:E:144:ILE:HG22	2.13	0.48
2:F:173:THR:HA	2:F:228:ILE:O	2.13	0.48
1:G:272:ASP:OD2	1:G:273:VAL:N	2.45	0.48
1:G:314:GLU:HG2	3:G:401:NAD:H72N	1.77	0.48
2:H:16:LEU:HD13	2:H:44:LEU:HD13	1.94	0.48
2:H:127:THR:OG1	2:H:217:VAL:HA	2.14	0.48
2:H:130:VAL:HG13	2:H:324:LEU:HD12	1.95	0.48
2:H:302:ASP:N	2:H:302:ASP:OD1	2.44	0.48
2:J:121:PRO:HG3	2:J:148:SER:N	2.28	0.48
1:K:219:PRO:HD2	1:K:220:GLN:HE22	1.79	0.48
2:L:24:PRO:HB2	2:L:329:ALA:HB1	1.95	0.48
1:O:130:VAL:O	1:O:132:VAL:HG23	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:293:ASP:H	1:O:308:VAL:HG22	1.78	0.48
2:P:236:ASN:OD1	2:P:284:ARG:NH1	2.46	0.48
1:Q:236:ASN:HB3	1:Q:284:ARG:NH1	2.27	0.48
1:A:76:ASN:OD1	1:A:77:ARG:N	2.47	0.48
1:A:280:SER:OG	1:A:281:VAL:N	2.46	0.48
2:B:65:SER:HA	2:B:70:VAL:CA	2.41	0.48
2:B:244:VAL:O	2:B:304:MET:HA	2.13	0.48
1:C:190:HIS:ND1	1:C:191:ARG:N	2.61	0.48
1:C:291:THR:O	1:C:310:TRP:HD1	1.96	0.48
1:E:184:LEU:HD22	2:H:184:LEU:HB2	1.95	0.48
1:E:245:ASN:HA	1:E:304:MET:HG2	1.95	0.48
1:E:258:ALA:HA	1:E:261:LYS:HB2	1.95	0.48
2:F:128:TYR:HA	2:F:133:ASN:CG	2.33	0.48
2:H:154:LEU:HA	2:H:157:PHE:CZ	2.47	0.48
1:K:161:LEU:HD22	1:K:167:ILE:HD11	1.94	0.48
2:L:18:CYS:O	2:L:20:ARG:HG2	2.13	0.48
2:L:121:PRO:HD3	2:L:148:SER:N	2.29	0.48
2:L:199:ALA:HA	2:L:202:ASN:HB2	1.93	0.48
1:O:11:ILE:HG22	3:O:401:NAD:O2N	2.12	0.48
1:O:64:PHE:O	1:O:71:ILE:N	2.43	0.48
1:O:66:ILE:O	1:O:69:LYS:HG3	2.14	0.48
2:P:173:THR:HA	2:P:228:ILE:O	2.13	0.48
1:Q:22:ASP:N	1:Q:22:ASP:OD1	2.44	0.48
2:R:7:GLY:HA2	3:R:401:NAD:N3A	2.28	0.48
2:R:172:MET:O	2:R:173:THR:OG1	2.31	0.48
1:A:322:VAL:O	1:A:326:ASP:N	2.47	0.48
1:C:2:LYS:N	1:C:90:ASP:OD2	2.47	0.48
1:C:64:PHE:CZ	1:C:71:ILE:HG22	2.47	0.48
1:C:240:VAL:O	1:C:309:ALA:N	2.46	0.48
2:D:18:CYS:O	2:D:20:ARG:HG2	2.13	0.48
2:D:253:GLU:HA	2:D:256:ASN:OD1	2.14	0.48
2:D:297:THR:HG22	2:D:307:VAL:HA	1.95	0.48
2:F:126:PRO:HB2	2:F:128:TYR:CZ	2.49	0.48
1:I:13:ARG:NH2	1:I:43:LEU:O	2.38	0.48
1:I:218:LEU:O	1:I:220:GLN:NE2	2.47	0.48
1:I:293:ASP:HB3	1:I:296:LEU:HG	1.95	0.48
2:J:58:LYS:O	2:J:65:SER:N	2.47	0.48
2:J:102:ARG:HG3	2:J:143:ILE:HD12	1.95	0.48
1:K:176:HIS:CD2	1:K:231:ARG:HG2	2.48	0.48
1:K:186:ASP:HA	1:K:197:ARG:HA	1.96	0.48
1:O:57:VAL:HA	1:O:64:PHE:CE2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:92:VAL:HG12	1:O:93:ILE:H	1.78	0.48
1:O:169:LYS:N	1:O:245:ASN:HD21	2.12	0.48
2:P:96:THR:O	3:P:401:NAD:H52A	2.13	0.48
1:Q:47:ASP:CG	1:Q:50:LEU:H	2.14	0.48
1:Q:236:ASN:OD1	1:Q:313:ASN:ND2	2.47	0.48
2:R:11:ILE:O	2:R:15:PHE:N	2.33	0.48
2:B:146:ASN:HD22	2:B:321:VAL:HG22	1.77	0.48
2:B:260:ARG:NH2	2:B:273:VAL:HG22	2.28	0.48
1:C:37:VAL:O	1:C:41:THR:N	2.28	0.48
1:C:60(A):ASP:OD1	1:C:63:THR:HG23	2.12	0.48
1:C:149:CYS:HB3	1:C:317:TYR:CG	2.48	0.48
2:D:3:VAL:O	2:D:27:VAL:HG13	2.14	0.48
1:E:11:ILE:HA	1:E:14:ASN:OD1	2.13	0.48
1:E:226:ASN:OD1	1:E:227:GLY:N	2.35	0.48
2:F:101:ASP:HB2	2:F:103:ASP:OD1	2.12	0.48
2:F:237:VAL:HG13	2:F:312:ASP:HA	1.96	0.48
2:F:281:ILE:HD12	2:F:284:ARG:HE	1.79	0.48
1:G:3:VAL:O	1:G:27:VAL:HA	2.13	0.48
1:G:34:GLY:O	1:G:39:SER:OG	2.31	0.48
1:G:251:THR:HA	1:G:299:VAL:HG11	1.96	0.48
2:H:102:ARG:NH2	2:H:125:ILE:HA	2.28	0.48
2:H:179:THR:OG1	2:H:180:GLY:N	2.41	0.48
1:I:85:ALA:N	1:I:112:GLY:HA3	2.28	0.48
2:J:104:GLY:HA2	2:J:107:LYS:HD2	1.96	0.48
2:J:327:ILE:HA	2:J:330:ASN:ND2	2.28	0.48
2:L:117:LEU:HD12	2:L:144:ILE:HD11	1.94	0.48
2:L:297:THR:HG22	2:L:307:VAL:HA	1.96	0.48
2:L:323:ASP:O	2:L:327:ILE:HG13	2.14	0.48
1:O:86:GLU:OE1	1:O:86:GLU:N	2.31	0.48
2:P:18(A):TRP:NE1	2:P:23:SER:OG	2.45	0.48
2:P:154:LEU:HD12	2:P:155:ALA:N	2.28	0.48
2:P:206:THR:HG23	2:P:229:ALA:HB3	1.96	0.48
1:Q:82:LEU:HB3	1:Q:84:TRP:CE2	2.48	0.48
1:Q:176:HIS:HD2	1:Q:177:SER:O	1.97	0.48
2:R:84:TRP:HB2	2:R:111:ALA:C	2.34	0.48
2:R:183:ARG:HE	2:R:190:HIS:HB2	1.78	0.48
1:A:148:SER:OG	1:A:151:THR:HG23	2.14	0.48
1:A:174:THR:O	1:A:230:LEU:HD23	2.13	0.48
2:B:280:SER:H	2:D:202:ASN:HB3	1.78	0.48
1:C:0:LYS:HG3	1:C:24:PRO:O	2.14	0.48
2:D:208:THR:HG22	2:D:229:ALA:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:91:ILE:HD11	1:E:328:VAL:HG11	1.95	0.48
1:E:154:LEU:HD13	1:E:157:PHE:CZ	2.47	0.48
1:E:184:LEU:HD23	1:E:184:LEU:H	1.78	0.48
2:F:206:THR:HG23	2:F:229:ALA:HB3	1.95	0.48
2:F:218:LEU:HB3	2:F:221:LEU:HD13	1.96	0.48
1:G:150:THR:O	1:G:154:LEU:N	2.39	0.48
1:I:20:ARG:HG3	1:I:21:LYS:HZ2	1.78	0.48
1:I:76:ASN:HB3	1:I:82:LEU:HD21	1.95	0.48
1:I:251:THR:HA	1:I:299:VAL:HG21	1.95	0.48
1:I:300:MET:SD	1:K:226:ASN:N	2.86	0.48
2:J:139:HIS:ND1	2:J:332:TRP:HA	2.28	0.48
2:J:206:THR:HG23	2:J:229:ALA:HB3	1.96	0.48
1:K:62:GLU:O	1:K:72:LYS:HD2	2.14	0.48
2:L:194:ARG:HD3	2:L:205:PRO:HD2	1.96	0.48
2:L:280:SER:HA	2:L:283:PHE:HD1	1.79	0.48
1:O:94:GLU:HB2	1:O:117:ILE:O	2.14	0.48
2:P:37:VAL:HG23	2:P:38:LYS:H	1.79	0.48
2:P:162:ASP:O	2:P:166:GLY:N	2.46	0.48
2:P:275:ASP:OD1	2:P:295:SER:N	2.41	0.48
1:Q:41:THR:HG21	1:Q:59:ILE:HG13	1.95	0.48
1:Q:84:TRP:HB3	1:Q:89:ILE:HB	1.95	0.48
1:Q:134:GLU:OE1	1:Q:134:GLU:N	2.47	0.48
2:R:204:VAL:O	2:R:230:LEU:HA	2.14	0.48
2:R:214:VAL:HG13	2:R:215:ALA:H	1.78	0.48
2:B:11:ILE:HA	2:B:14:ASN:HB3	1.95	0.48
2:B:33:THR:OG1	2:B:77:ARG:NH1	2.47	0.48
2:B:184:LEU:HB2	1:C:184:LEU:HB3	1.96	0.48
1:C:10:ARG:HB3	1:C:314:GLU:OE2	2.14	0.48
1:C:73:VAL:HG12	1:C:74:VAL:O	2.13	0.48
2:D:256:ASN:HA	2:D:259:PHE:CD2	2.49	0.48
1:E:42:HIS:O	1:E:45:LYS:HB2	2.14	0.48
1:E:115:LYS:HG2	1:E:142:ASN:HA	1.94	0.48
1:E:161:LEU:O	1:E:165:LEU:N	2.45	0.48
2:H:171:THR:O	2:H:242:LEU:HD12	2.14	0.48
2:H:214:VAL:HG13	2:H:215:ALA:H	1.78	0.48
2:H:270:ILE:O	2:H:289:SER:N	2.35	0.48
2:H:326:ASP:HA	2:H:329:ALA:HB3	1.95	0.48
1:I:64:PHE:O	1:I:71:ILE:N	2.42	0.48
2:J:2:LYS:HD3	2:J:87:MET:O	2.14	0.48
2:J:18(A):TRP:HA	2:J:20:ARG:HB2	1.95	0.48
2:J:39:GLN:HE21	1:K:191:ARG:HG3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:9:GLY:CA	3:K:401:NAD:H4B	2.43	0.48
1:K:199:ALA:O	1:K:201:LEU:N	2.46	0.48
2:L:15:PHE:CZ	2:L:322:VAL:HA	2.49	0.48
2:L:224:LYS:NZ	2:L:225:LEU:HB2	2.24	0.48
1:O:3:VAL:HA	1:O:91:ILE:O	2.13	0.48
1:O:162:ASP:HA	1:O:166:GLY:H	1.78	0.48
1:O:166:GLY:O	1:O:247:GLU:N	2.45	0.48
1:O:246:ILE:HD12	1:O:246:ILE:HA	1.66	0.48
1:Q:28:VAL:C	1:Q:71:ILE:HG23	2.33	0.48
1:Q:251:THR:HG1	1:Q:252:ALA:H	1.62	0.48
2:R:172:MET:SD	2:R:227:GLY:N	2.87	0.48
2:R:222:LYS:O	2:R:224:LYS:HG2	2.13	0.48
1:A:11:ILE:HG22	3:A:401:NAD:O2N	2.14	0.48
1:A:36:GLY:O	1:A:39:SER:OG	2.23	0.48
1:A:54:LYS:CD	1:A:54:LYS:H	2.26	0.48
1:A:137:TYR:HB3	1:A:331:LYS:NZ	2.29	0.48
1:A:211:ALA:O	1:A:225:LEU:HB3	2.13	0.48
1:A:246:ILE:HD13	1:A:305:VAL:HG11	1.96	0.48
2:B:102:ARG:HH21	2:B:125:ILE:HG13	1.78	0.48
2:B:277:PRO:HB2	2:D:194:ARG:HG2	1.95	0.48
1:C:80:LEU:HG	1:C:107:LYS:HZ1	1.77	0.48
1:C:279:VAL:HA	1:C:310:TRP:CH2	2.49	0.48
2:D:0:LYS:N	2:D:26:ASP:HB2	2.29	0.48
1:E:161:LEU:HB3	1:E:165:LEU:HD12	1.96	0.48
2:F:91:LEU:HD21	2:F:93:ILE:HD11	1.95	0.48
1:G:2:LYS:N	1:G:90:ASP:OD2	2.46	0.48
2:H:29:VAL:N	2:H:71:ILE:HG23	2.29	0.48
1:I:202:ASN:HB2	1:K:280:SER:OG	2.14	0.48
2:L:173:THR:O	2:L:241:ASP:N	2.46	0.48
1:O:18(B):HIS:CD2	1:O:18(B):HIS:C	2.87	0.48
1:O:151:THR:HA	1:O:154:LEU:HD11	1.95	0.48
1:O:201:LEU:HD12	1:O:202:ASN:HD21	1.79	0.48
2:P:38:LYS:HZ3	2:P:39:GLN:H	1.61	0.48
2:P:92:VAL:HB	2:P:116:VAL:HG22	1.96	0.48
2:P:118:ILE:HB	2:P:145:SER:HB2	1.96	0.48
2:R:15:PHE:CZ	2:R:322:VAL:HA	2.48	0.48
1:A:32:ASP:N	1:A:74:VAL:O	2.37	0.48
1:A:37:VAL:HG13	1:A:38:LYS:H	1.78	0.48
1:A:45:LYS:O	1:A:52:THR:HA	2.14	0.48
2:B:82:LEU:HB2	2:B:84:TRP:CD1	2.49	0.48
2:B:213:ALA:O	2:B:217:VAL:HG13	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:250:THR:OG1	2:B:251:PHE:O	2.30	0.48
1:C:45:LYS:NZ	1:C:55:ALA:O	2.45	0.48
1:C:49:ILE:HG22	1:C:284:ARG:CZ	2.43	0.48
1:C:177:SER:O	1:C:179:THR:HG23	2.12	0.48
1:C:238:SER:HB3	1:C:311:TYR:CE1	2.49	0.48
1:C:313:ASN:O	1:C:317:TYR:HB2	2.14	0.48
2:D:29:VAL:HG11	2:D:89:ILE:HD11	1.95	0.48
1:E:65:SER:HA	1:E:69:LYS:O	2.13	0.48
1:E:94:GLU:OE2	1:E:99:PHE:N	2.28	0.48
2:F:1:LEU:O	2:F:3:VAL:N	2.47	0.48
2:F:218:LEU:HB3	2:F:221:LEU:HB2	1.96	0.48
1:I:175:THR:OG1	1:I:239:VAL:HG13	2.14	0.48
1:I:185:LEU:CD1	2:L:10:ARG:CZ	2.91	0.48
2:J:5:ILE:HD12	2:J:93:ILE:HB	1.95	0.48
2:J:49:ILE:HG23	2:J:284:ARG:HH11	1.78	0.48
2:J:63:ALA:O	2:J:64:ILE:HD13	2.13	0.48
2:J:174:THR:O	2:J:230:LEU:HB2	2.14	0.48
2:J:226:ASN:HB3	2:L:300:MET:HE1	1.95	0.48
2:J:277:PRO:HG3	2:L:193:LEU:HD13	1.95	0.48
1:K:161:LEU:HA	1:K:164:GLU:HG2	1.96	0.48
2:L:243:VAL:HA	2:L:306:LYS:HA	1.95	0.48
2:L:253:GLU:HA	2:L:256:ASN:OD1	2.13	0.48
2:L:293:ASP:H	2:L:308:ILE:HB	1.78	0.48
1:O:32:ASP:HB3	1:O:73:VAL:CG1	2.43	0.48
1:O:202:ASN:O	1:O:233:PRO:HD3	2.14	0.48
1:Q:24:PRO:HD2	1:Q:326:ASP:OD1	2.14	0.48
1:Q:270:VAL:HA	1:Q:288:PHE:HA	1.96	0.48
2:R:62:SER:O	2:R:73:VAL:HG12	2.14	0.48
2:R:169:LYS:O	2:R:245:GLN:N	2.37	0.48
2:R:210:ALA:O	2:R:214:VAL:HG12	2.14	0.48
2:R:272:SER:N	2:R:290:SER:O	2.47	0.48
1:A:54:LYS:H	1:A:54:LYS:HD2	1.77	0.48
1:A:109:ILE:HD13	1:A:113:ALA:HB3	1.96	0.48
1:A:139:HIS:NE2	1:A:333:PRO:HD3	2.29	0.48
1:A:169:LYS:HB3	1:C:300:MET:HG2	1.96	0.48
1:A:203:ILE:HD12	1:A:231:ARG:O	2.14	0.48
2:B:129:VAL:HG13	2:B:132:VAL:HB	1.95	0.48
2:B:139:HIS:ND1	2:B:332:TRP:HA	2.29	0.48
2:B:181:ASP:O	2:B:183:ARG:NH1	2.47	0.48
2:B:215:ALA:C	2:B:222:LYS:HZ3	2.16	0.48
1:C:47:ASP:OD2	1:C:50:LEU:N	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:256:ASN:C	1:C:260:ARG:HE	2.17	0.48
2:D:237:VAL:HG13	2:D:311:TYR:O	2.14	0.48
1:E:255:VAL:HA	1:E:258:ALA:HB3	1.96	0.48
1:E:318:SER:HA	1:E:321:VAL:HG22	1.95	0.48
1:G:49:ILE:O	1:G:284:ARG:NH2	2.36	0.48
1:G:137:TYR:CE2	1:G:331:LYS:HE3	2.49	0.48
1:G:177:SER:HG	1:G:234:THR:C	2.17	0.48
1:G:219:PRO:HA	1:G:222:LYS:HD3	1.95	0.48
1:G:346:GLU:O	1:G:350:LYS:N	2.41	0.48
2:H:37:VAL:HG11	2:H:61:ASP:O	2.13	0.48
2:H:60:ALA:O	2:H:63:ALA:HB3	2.14	0.48
2:H:122(A):LYS:HD2	2:H:122(A):LYS:HA	1.64	0.48
2:H:267:LEU:HA	2:H:270:ILE:HB	1.95	0.48
2:H:275:ASP:OD1	2:H:295:SER:N	2.27	0.48
1:I:42:HIS:HA	1:I:46:TYR:CE1	2.48	0.48
2:J:11:ILE:HG12	3:J:401:NAD:O1N	2.14	0.48
2:J:203:ILE:HD11	2:J:230:LEU:HB3	1.96	0.48
1:K:29:VAL:HB	1:K:72:LYS:HB3	1.95	0.48
1:K:80:LEU:HG	1:K:107:LYS:NZ	2.28	0.48
2:L:118:ILE:O	2:L:145:SER:OG	2.31	0.48
2:L:313:ASN:N	2:L:313:ASN:OD1	2.45	0.48
2:R:94:GLU:CD	2:R:96:THR:HG1	2.18	0.47
2:R:173:THR:OG1	2:R:228:ILE:HG13	2.14	0.47
2:R:258:ALA:HA	2:R:261:GLU:HG3	1.96	0.47
1:A:31:ASN:ND2	1:A:76:ASN:O	2.47	0.47
1:A:137:TYR:HB3	1:A:331:LYS:HZ3	1.79	0.47
1:A:195:ARG:HH22	1:G:361:TYR:H	1.61	0.47
1:A:262:ALA:C	1:A:265:GLY:H	2.17	0.47
2:B:6:ASN:OD1	2:B:7:GLY:N	2.47	0.47
2:B:13:ARG:HG2	2:B:43:LEU:C	2.34	0.47
2:B:39:GLN:NE2	1:C:191:ARG:HA	2.29	0.47
2:B:281:ILE:H	2:D:202:ASN:HD22	1.57	0.47
2:B:298:MET:HG3	2:B:306:LYS:HB3	1.96	0.47
1:C:4:ALA:HA	1:C:27:VAL:CG2	2.44	0.47
1:C:30:VAL:H	1:C:73:VAL:HA	1.79	0.47
1:C:58:LYS:O	1:C:64:PHE:HB2	2.14	0.47
1:C:203:ILE:HD12	1:C:231:ARG:O	2.14	0.47
1:E:46:TYR:CE1	2:F:278:LEU:HD21	2.49	0.47
1:E:74:VAL:HG22	1:E:75:SER:H	1.79	0.47
1:E:172:MET:SD	1:E:240:VAL:HB	2.54	0.47
2:F:62:SER:O	2:F:73:VAL:HG12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:89:ILE:O	2:F:113:ALA:HA	2.14	0.47
2:F:102:ARG:HH21	2:F:125:ILE:HG13	1.77	0.47
2:F:183:ARG:NE	2:F:188:SER:O	2.46	0.47
1:G:8:PHE:HZ	1:G:44:LEU:HB2	1.79	0.47
1:G:52:THR:O	1:G:54:LYS:NZ	2.27	0.47
1:G:105:ALA:O	1:G:109:ILE:HG12	2.14	0.47
2:H:174:THR:OG1	2:H:175:THR:N	2.47	0.47
2:H:199:ALA:O	2:H:202:ASN:N	2.47	0.47
2:H:215:ALA:O	2:H:222:LYS:NZ	2.47	0.47
2:H:236:ASN:O	2:H:313:ASN:ND2	2.31	0.47
2:H:330:ASN:N	2:H:330:ASN:OD1	2.47	0.47
2:J:182:GLN:HE21	2:J:182:GLN:H	1.60	0.47
2:J:260:ARG:NH2	2:J:273:VAL:HG22	2.29	0.47
2:J:279:VAL:HA	2:J:310:TRP:HH2	1.79	0.47
1:K:17:ARG:HG2	1:K:53:PHE:CE2	2.49	0.47
1:K:84:TRP:N	1:K:86:GLU:OE1	2.46	0.47
1:K:134:GLU:OE1	1:K:134:GLU:N	2.36	0.47
2:L:3:VAL:HG13	2:L:91:LEU:O	2.14	0.47
2:L:38:LYS:HB2	2:L:42:HIS:CE1	2.49	0.47
2:L:100:VAL:O	2:L:122(A):LYS:N	2.35	0.47
1:O:56:ASP:N	1:O:67:ASP:OD1	2.47	0.47
1:O:198:ALA:O	1:O:201:LEU:HG	2.14	0.47
1:O:212:LYS:HZ2	1:O:212:LYS:H	1.62	0.47
2:P:9:GLY:HA3	3:P:401:NAD:O2N	2.14	0.47
2:P:76:ASP:OD1	2:P:78:ASN:N	2.47	0.47
1:Q:118:ILE:C	1:Q:145:SER:HG	2.12	0.47
1:Q:190:HIS:CE1	1:Q:195:ARG:N	2.82	0.47
1:Q:298:MET:SD	1:Q:299:VAL:N	2.87	0.47
2:R:127:THR:OG1	2:R:217:VAL:HA	2.14	0.47
1:A:4:ALA:HA	1:A:29:VAL:O	2.15	0.47
1:A:149:CYS:O	1:A:153:CYS:N	2.47	0.47
1:A:226:ASN:HD22	1:C:300:MET:HA	1.79	0.47
1:C:47:ASP:HB3	1:C:51:GLY:H	1.78	0.47
1:C:151:THR:O	1:C:154:LEU:N	2.47	0.47
1:C:217:VAL:HG23	1:C:218:LEU:HD22	1.95	0.47
1:C:298:MET:N	1:C:306:LYS:HE3	2.30	0.47
2:D:118:ILE:O	2:D:145:SER:OG	2.32	0.47
2:D:150:THR:OG1	2:D:151:THR:N	2.44	0.47
2:D:318:SER:O	2:D:322:VAL:HG23	2.14	0.47
1:E:17:ARG:HD3	1:E:44:LEU:HD11	1.96	0.47
1:E:105:ALA:O	1:E:109:ILE:HG12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:92:VAL:HB	2:F:116:VAL:HG22	1.96	0.47
2:F:109:LEU:HD23	2:F:113:ALA:HB3	1.95	0.47
2:F:149:CYS:HA	2:F:152:ASN:HB3	1.95	0.47
1:G:194:ARG:NH2	1:G:204:VAL:HG11	2.28	0.47
2:H:18(A):TRP:HZ3	2:H:18(B):HIS:CE1	2.33	0.47
2:H:122:GLY:HA3	2:H:125:ILE:HG12	1.96	0.47
2:H:242:LEU:HD23	2:H:307:VAL:HG21	1.96	0.47
2:J:15:PHE:CG	2:J:322:VAL:HG22	2.49	0.47
2:J:250:THR:OG1	2:J:251:PHE:O	2.31	0.47
2:P:17:ARG:NH2	2:P:53:PHE:HA	2.29	0.47
2:P:128:TYR:HA	2:P:133:ASN:CG	2.34	0.47
2:P:193:LEU:HD22	2:R:277:PRO:HG2	1.97	0.47
1:Q:186:ASP:OD2	1:Q:197:ARG:NE	2.42	0.47
2:R:29:VAL:N	2:R:71:ILE:HG23	2.29	0.47
2:R:171:THR:O	2:R:242:LEU:HD12	2.14	0.47
2:R:274:CYS:HB3	2:R:276:GLU:CD	2.35	0.47
1:A:76:ASN:ND2	1:A:81:LYS:HG3	2.29	0.47
1:A:123(A):SER:HB2	1:G:124:ASP:HB3	1.95	0.47
2:B:174:THR:O	2:B:230:LEU:HB2	2.15	0.47
1:C:11:ILE:HG21	1:C:119:THR:HG21	1.97	0.47
1:C:84:TRP:N	1:C:86:GLU:OE1	2.47	0.47
1:C:105:ALA:O	1:C:108:HIS:N	2.47	0.47
2:D:270:ILE:HA	2:D:320:ARG:NH1	2.28	0.47
1:E:7:GLY:O	1:E:95:GLY:HA3	2.14	0.47
1:E:94:GLU:CD	1:E:96:THR:HG1	2.17	0.47
1:E:246:ILE:HG22	1:E:304:MET:N	2.30	0.47
2:F:190:HIS:CG	2:F:191:ARG:N	2.83	0.47
2:F:303:ASP:OD1	2:F:303:ASP:N	2.47	0.47
1:G:116:VAL:HG21	1:G:143:ILE:HG23	1.96	0.47
1:G:332:TRP:CG	1:G:333:PRO:HD2	2.48	0.47
2:H:28:VAL:HG13	2:H:70:VAL:O	2.14	0.47
2:H:275:ASP:OD2	2:H:294:SER:OG	2.27	0.47
1:I:60:ILE:HB	1:I:63:THR:O	2.15	0.47
1:I:114:LYS:O	1:I:142:ASN:ND2	2.32	0.47
1:I:129:VAL:HG12	1:I:133:ASN:ND2	2.28	0.47
1:I:133:ASN:HA	1:I:136:ASP:OD2	2.15	0.47
1:I:221:LEU:HD13	1:I:224:LYS:HB2	1.96	0.47
2:J:44:LEU:O	2:J:53:PHE:HB2	2.14	0.47
2:J:213:ALA:O	2:J:217:VAL:HG13	2.14	0.47
2:J:237:VAL:HG22	2:J:312:ASP:HA	1.96	0.47
2:J:272:SER:O	2:J:291:THR:HA	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:46:TYR:CD1	2:P:278:LEU:HD21	2.48	0.47
1:O:63:THR:HG22	1:O:64:PHE:N	2.29	0.47
1:O:292:ILE:HG13	1:O:309:ALA:HA	1.97	0.47
2:P:12:GLY:O	2:P:16:LEU:N	2.32	0.47
2:P:173:THR:N	2:P:241:ASP:OD1	2.47	0.47
2:P:184:LEU:HD13	1:Q:184:LEU:HD13	1.96	0.47
1:Q:121:PRO:HG3	1:Q:148:SER:H	1.79	0.47
2:R:330:ASN:N	2:R:330:ASN:OD1	2.47	0.47
1:A:178:TYR:CE1	1:A:235:PRO:HA	2.49	0.47
1:C:4:ALA:N	1:C:91:ILE:O	2.47	0.47
1:C:106:GLY:O	1:C:110:GLN:N	2.25	0.47
1:C:142:ASN:ND2	1:C:143:ILE:H	2.10	0.47
1:C:236:ASN:HD21	1:C:314:GLU:H	1.63	0.47
2:D:84:TRP:HD1	2:D:108:HIS:O	1.96	0.47
2:D:87:MET:N	2:D:87:MET:SD	2.86	0.47
1:E:18(A):TRP:HZ3	1:E:69:LYS:HD3	1.79	0.47
1:E:18(B):HIS:ND1	1:E:69:LYS:HD2	2.30	0.47
1:E:101:ASP:OD1	1:E:104:GLY:N	2.24	0.47
1:E:118:ILE:HG22	1:E:145:SER:HA	1.96	0.47
1:E:120:ALA:N	1:E:146:ASN:HD21	2.07	0.47
1:E:139:HIS:HE1	1:E:332:TRP:CD1	2.31	0.47
2:F:18(A):TRP:NE1	2:F:23:SER:OG	2.44	0.47
2:F:173:THR:N	2:F:241:ASP:OD1	2.47	0.47
1:G:22:ASP:OD1	1:G:22:ASP:N	2.47	0.47
1:G:53:PHE:CE2	1:G:55:ALA:HB3	2.49	0.47
1:G:126:PRO:O	1:G:127:THR:C	2.52	0.47
1:G:154:LEU:HA	1:G:154:LEU:HD12	1.68	0.47
2:H:210:ALA:O	2:H:214:VAL:HG12	2.14	0.47
1:I:165:LEU:HB3	1:I:246:ILE:HG13	1.97	0.47
1:I:193:LEU:O	1:I:197:ARG:N	2.48	0.47
1:I:321:VAL:HA	1:I:324:LEU:HD23	1.95	0.47
2:J:31:ASN:OD1	2:J:74:VAL:HG23	2.15	0.47
1:K:57:VAL:HG22	1:K:66:ILE:HG23	1.96	0.47
1:K:122(A):LYS:HA	1:K:122(A):LYS:HD3	1.72	0.47
2:L:25:LEU:HD22	2:L:329:ALA:HB2	1.96	0.47
2:L:170:GLY:HA2	2:L:244:VAL:HA	1.95	0.47
2:L:171:THR:O	2:L:242:LEU:HD12	2.15	0.47
2:L:190:HIS:CG	2:L:191:ARG:N	2.81	0.47
2:L:192:ASP:OD2	2:L:194:ARG:HB2	2.14	0.47
1:O:103:PRO:HA	1:C:110:GLN:HB2	1.96	0.47
1:O:142:ASN:O	1:O:144:ILE:HG22	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:45:LYS:O	2:P:52:THR:OG1	2.26	0.47
1:Q:186:ASP:CG	1:Q:197:ARG:HE	2.17	0.47
1:Q:312:ASP:OD2	1:Q:315:TRP:HB3	2.13	0.47
2:R:47:ASP:CG	2:R:49:ILE:H	2.15	0.47
2:R:91:LEU:HD21	2:R:93:ILE:HD11	1.96	0.47
2:R:326:ASP:HA	2:R:329:ALA:HB3	1.95	0.47
1:A:125:ILE:HG22	1:A:126:PRO:HD2	1.95	0.47
1:A:236:ASN:HD21	1:A:314:GLU:H	1.62	0.47
2:B:0:LYS:NZ	2:B:1:LEU:HD13	2.29	0.47
2:B:203:ILE:HG23	2:B:205:PRO:HD3	1.97	0.47
2:B:268:LYS:HE2	2:B:268:LYS:HB2	1.81	0.47
1:C:40:ALA:HA	1:C:43:LEU:HD12	1.96	0.47
1:C:122(A):LYS:HD3	1:C:122(A):LYS:HA	1.60	0.47
1:C:292:ILE:HG13	1:C:309:ALA:HA	1.95	0.47
1:C:318:SER:OG	1:C:319:GLN:OE1	2.32	0.47
1:E:37:VAL:HG13	1:E:59:ILE:CG2	2.44	0.47
1:E:96:THR:OG1	1:E:98:VAL:HG22	2.13	0.47
1:E:227:GLY:HA3	1:G:306:LYS:HZ3	1.79	0.47
2:F:227:GLY:HA3	2:H:306:LYS:HZ2	1.80	0.47
1:G:210:ALA:HA	1:G:213:ALA:HB3	1.96	0.47
2:H:85:GLY:N	2:H:112:GLY:HA3	2.30	0.47
2:H:168:ILE:N	2:H:245:GLN:O	2.48	0.47
2:H:317:TYR:O	2:H:321:VAL:HG23	2.15	0.47
1:I:187:ALA:CA	2:L:43:LEU:HD11	2.45	0.47
1:I:272:ASP:HB3	1:I:290:SER:O	2.14	0.47
1:I:349:CYS:SG	1:I:353:PRO:HA	2.55	0.47
1:K:11:ILE:C	1:K:14:ASN:HD22	2.17	0.47
1:K:79:PRO:CB	1:K:107:LYS:HZ2	2.28	0.47
1:K:159:LYS:HG2	1:K:163:GLU:CD	2.34	0.47
1:K:201:LEU:N	1:K:201:LEU:HD22	2.29	0.47
2:L:63:ALA:HA	2:L:72:LYS:HA	1.97	0.47
2:L:236:ASN:OD1	2:L:284:ARG:NH1	2.48	0.47
1:O:135:LYS:HG3	1:O:136:ASP:OD1	2.13	0.47
1:O:183:ARG:HH21	1:O:190:HIS:HA	1.79	0.47
1:O:274:CYS:N	1:O:292:ILE:O	2.33	0.47
2:P:8:PHE:H	2:P:32:ASP:CB	2.27	0.47
2:P:101:ASP:HB2	2:P:103:ASP:OD1	2.14	0.47
2:P:239:VAL:HG13	2:P:310:TRP:CD2	2.49	0.47
1:Q:72:LYS:HG2	1:Q:73:VAL:N	2.28	0.47
1:Q:190:HIS:CE1	1:Q:195:ARG:H	2.32	0.47
2:R:130:VAL:HG13	2:R:324:LEU:HD12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:177:SER:OG	2:R:234:THR:O	2.18	0.47
2:R:281:ILE:O	2:R:283:PHE:N	2.46	0.47
1:A:28:VAL:O	1:A:71:ILE:HG23	2.15	0.47
1:A:316:GLY:O	1:A:320:ARG:HG2	2.15	0.47
1:A:349:CYS:SG	1:A:353:PRO:HA	2.55	0.47
2:B:3:VAL:HG13	2:B:91:LEU:O	2.15	0.47
2:B:25:LEU:HD11	2:B:326:ASP:HA	1.96	0.47
2:B:32:ASP:OD1	2:B:33:THR:N	2.48	0.47
1:C:85:ALA:C	1:C:88:GLY:H	2.17	0.47
1:C:176:HIS:N	1:C:230:LEU:O	2.48	0.47
1:C:253:GLU:OE1	1:C:254:ASP:N	2.48	0.47
2:D:169:LYS:HB2	2:D:245:GLN:HB3	1.96	0.47
2:D:190:HIS:CG	2:D:191:ARG:N	2.82	0.47
2:F:7:GLY:N	2:F:31:ASN:O	2.47	0.47
2:F:59:THR:CA	2:F:64:ILE:HA	2.30	0.47
2:F:100:VAL:HG22	2:F:122(A):LYS:N	2.29	0.47
2:F:270:ILE:O	2:F:271:LEU:HD13	2.14	0.47
1:G:118:ILE:O	1:G:145:SER:OG	2.20	0.47
1:G:177:SER:HA	1:G:234:THR:HG23	1.96	0.47
1:G:323:ASP:O	1:G:327:LEU:HG	2.13	0.47
2:H:1:LEU:H	2:H:26:ASP:H	1.63	0.47
2:H:45:LYS:HG2	2:H:57:VAL:HG11	1.96	0.47
2:H:94:GLU:CD	2:H:96:THR:HG1	2.17	0.47
1:I:271:LEU:HA	1:I:289:SER:HB3	1.97	0.47
1:K:204:VAL:HG13	1:K:231:ARG:HB2	1.95	0.47
1:K:253:GLU:HA	1:K:256:ASN:HD21	1.79	0.47
2:L:87:MET:N	2:L:87:MET:SD	2.87	0.47
2:L:115:LYS:HA	2:L:142:THR:OG1	2.14	0.47
2:L:256:ASN:HA	2:L:259:PHE:CD2	2.50	0.47
1:O:175:THR:HG23	1:O:239:VAL:O	2.15	0.47
1:O:214:VAL:HG21	1:O:225:LEU:HD12	1.96	0.47
1:O:226:ASN:HD22	1:Q:298:MET:HG2	1.78	0.47
1:O:264:ALA:HA	1:O:268:LYS:NZ	2.30	0.47
2:P:1:LEU:HD13	2:P:329:ALA:HA	1.96	0.47
2:P:31:ASN:HA	2:P:73:VAL:HG23	1.96	0.47
2:P:77:ARG:HB3	3:P:401:NAD:N6A	2.28	0.47
2:P:102:ARG:HH21	2:P:125:ILE:HG13	1.80	0.47
2:P:270:ILE:O	2:P:289:SER:OG	2.25	0.47
1:Q:147:ALA:O	1:Q:152:ASN:ND2	2.48	0.47
1:Q:190:HIS:NE2	1:Q:195:ARG:HB2	2.30	0.47
1:Q:201:LEU:HD23	1:Q:201:LEU:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:116:VAL:HG12	2:R:144:ILE:O	2.15	0.47
2:R:122(A):LYS:HD2	2:R:122(A):LYS:HA	1.62	0.47
2:R:293:ASP:O	2:R:297:THR:HG23	2.15	0.47
1:A:10:ARG:N	3:A:401:NAD:O2N	2.48	0.47
1:A:27:VAL:HG23	1:A:71:ILE:HD11	1.96	0.47
1:A:169:LYS:N	1:A:245:ASN:OD1	2.47	0.47
1:A:221:LEU:C	1:A:224:LYS:HD3	2.35	0.47
2:B:104:GLY:HA2	2:B:107:LYS:HD2	1.95	0.47
2:B:161:LEU:O	2:B:165:PHE:N	2.45	0.47
2:B:274:CYS:O	2:B:294:SER:N	2.39	0.47
1:C:139:HIS:HB3	1:C:331:LYS:HE2	1.96	0.47
1:C:263:ALA:O	1:C:268:LYS:NZ	2.28	0.47
2:D:1:LEU:HD11	2:D:332:TRP:CE3	2.50	0.47
2:D:82:LEU:O	2:D:111:ALA:HB1	2.15	0.47
2:D:128:TYR:HA	2:D:133:ASN:ND2	2.30	0.47
2:D:135:GLU:CD	2:D:135:GLU:H	2.17	0.47
2:D:236:ASN:OD1	2:D:284:ARG:NH1	2.48	0.47
1:E:11:ILE:HD11	3:E:401:NAD:O5D	2.15	0.47
1:E:57:VAL:HG13	1:E:64:PHE:CD1	2.49	0.47
1:E:79:PRO:HB3	1:E:108:HIS:CE1	2.50	0.47
1:E:103:PRO:O	1:E:107:LYS:HG3	2.15	0.47
1:E:175:THR:O	1:E:175:THR:OG1	2.26	0.47
1:E:214:VAL:HG23	1:E:215:SER:H	1.79	0.47
2:F:1:LEU:HD13	2:F:329:ALA:HA	1.97	0.47
2:F:11:ILE:HG12	3:F:401:NAD:PN	2.55	0.47
2:F:90:ASP:HA	2:F:114:LYS:HE2	1.97	0.47
2:F:162:ASP:O	2:F:166:GLY:N	2.47	0.47
1:G:44:LEU:HD21	1:G:66:ILE:HG12	1.96	0.47
1:G:134:GLU:HB2	1:G:327:LEU:HD13	1.97	0.47
1:G:139:HIS:HB2	1:G:331:LYS:CB	2.41	0.47
1:G:162:ASP:O	1:G:166:GLY:HA2	2.15	0.47
2:H:57:VAL:HA	2:H:66:VAL:HG22	1.97	0.47
2:H:116:VAL:HG12	2:H:144:ILE:O	2.15	0.47
2:H:173:THR:OG1	2:H:228:ILE:HG13	2.15	0.47
2:H:221:LEU:HA	2:H:224:LYS:HE2	1.97	0.47
1:I:236:ASN:OD1	1:I:313:ASN:N	2.48	0.47
2:J:20:ARG:HE	2:J:319:GLN:HE22	1.63	0.47
2:J:49:ILE:HG23	2:J:284:ARG:NH1	2.30	0.47
2:J:115:LYS:HA	2:J:142:THR:OG1	2.15	0.47
2:J:139:HIS:CE1	2:J:332:TRP:HA	2.50	0.47
2:J:160:VAL:HA	2:J:163:GLN:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:170:GLY:HA2	2:J:244:VAL:HA	1.97	0.47
2:J:239:VAL:HA	2:J:310:TRP:HA	1.97	0.47
1:K:2:LYS:HB3	1:K:90:ASP:OD1	2.15	0.47
1:K:10:ARG:HG2	3:K:401:NAD:O2A	2.15	0.47
1:K:96:THR:OG1	1:K:97:GLY:N	2.47	0.47
2:L:192:ASP:HB3	2:L:195:ARG:HB2	1.96	0.47
1:O:53:PHE:HD1	1:O:54:LYS:HZ1	1.62	0.47
1:Q:5:ILE:HD12	1:Q:30:VAL:HG22	1.97	0.47
1:Q:199:ALA:O	1:Q:233:PRO:HG3	2.14	0.47
1:Q:242:LEU:N	1:Q:307:VAL:O	2.48	0.47
2:R:247:SER:OG	2:R:248:LYS:N	2.48	0.47
2:R:267:LEU:HA	2:R:270:ILE:HB	1.96	0.47
1:A:84:TRP:HE3	1:A:89:ILE:HG21	1.79	0.47
1:A:149:CYS:HB3	1:A:317:TYR:CG	2.50	0.47
1:A:168:VAL:HB	1:A:245:ASN:CG	2.36	0.47
2:B:139:HIS:CE1	2:B:332:TRP:HA	2.50	0.47
2:B:320:ARG:HE	2:B:320:ARG:N	2.11	0.47
1:E:46:TYR:CD1	2:F:278:LEU:HD21	2.50	0.47
2:F:176:HIS:CG	2:F:177:SER:N	2.83	0.47
1:G:0:LYS:HD3	1:G:0:LYS:H1	1.79	0.47
1:G:202:ASN:ND2	1:G:204:VAL:HG23	2.30	0.47
2:H:18(B):HIS:CE1	2:H:66:VAL:HG12	2.50	0.47
1:I:236:ASN:HD21	1:I:314:GLU:H	1.63	0.47
2:J:102:ARG:NH2	2:J:125:ILE:HA	2.30	0.47
2:J:244:VAL:O	2:J:304:MET:HA	2.15	0.47
2:J:312:ASP:OD2	2:J:315:TRP:HB3	2.15	0.47
2:J:320:ARG:HE	2:J:320:ARG:N	2.12	0.47
1:K:11:ILE:HG21	1:K:119:THR:HG21	1.96	0.47
1:K:94:GLU:OE2	1:K:99:PHE:N	2.38	0.47
2:L:126:PRO:HD2	2:L:143:ILE:O	2.14	0.47
2:L:324:LEU:HA	2:L:327:ILE:HD12	1.97	0.47
1:O:20:ARG:HA	1:O:21:LYS:HZ3	1.80	0.47
2:P:173:THR:HB	2:P:241:ASP:OD2	2.15	0.47
2:R:135:GLU:H	2:R:135:GLU:CD	2.17	0.47
2:R:139:HIS:HB2	2:R:333:GLN:HB2	1.95	0.47
2:R:174:THR:OG1	2:R:175:THR:N	2.47	0.47
1:A:49:ILE:HG13	1:A:284:ARG:NH2	2.29	0.47
1:A:204:VAL:HB	1:A:231:ARG:CB	2.38	0.47
1:A:256:ASN:HA	1:A:259:PHE:HB2	1.97	0.47
2:B:45:LYS:HZ3	2:B:55:ALA:C	2.18	0.47
2:B:194:ARG:NH2	2:D:278:LEU:H	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:237:VAL:HG22	2:B:312:ASP:HA	1.96	0.47
2:B:257:ALA:O	2:B:260:ARG:HB2	2.14	0.47
2:B:260:ARG:HE	2:B:273:VAL:HG13	1.80	0.47
2:D:115:LYS:HA	2:D:142:THR:OG1	2.14	0.47
2:D:126:PRO:HD2	2:D:143:ILE:O	2.14	0.47
1:E:193:LEU:HD21	2:H:42:HIS:CE1	2.50	0.47
2:F:64:ILE:N	2:F:71:ILE:O	2.48	0.47
1:G:45:LYS:HG3	1:G:52:THR:HG23	1.97	0.47
1:G:190:HIS:HE1	1:G:195:ARG:HB2	1.80	0.47
1:G:290:SER:HA	1:G:310:TRP:O	2.15	0.47
2:H:2:LYS:HA	2:H:26:ASP:O	2.14	0.47
2:H:59:THR:HA	2:H:64:ILE:HG23	1.97	0.47
2:H:292:ILE:HG23	2:H:308:ILE:O	2.15	0.47
1:I:184:LEU:HD23	1:I:184:LEU:H	1.79	0.47
2:J:0:LYS:NZ	2:J:1:LEU:HD13	2.30	0.47
2:J:259:PHE:HA	2:J:262:SER:HB3	1.96	0.47
1:K:56:ASP:OD1	1:K:57:VAL:N	2.48	0.47
1:K:259:PHE:HA	1:K:262:ALA:HB3	1.97	0.47
2:L:90:ASP:OD1	2:L:114:LYS:NZ	2.30	0.47
1:O:13:ARG:CA	1:O:44:LEU:HD11	2.35	0.47
1:O:154:LEU:HA	1:O:157:PHE:CZ	2.49	0.47
1:O:208:THR:OG1	1:O:209:GLY:N	2.47	0.47
1:O:281:VAL:O	1:O:284:ARG:HB2	2.14	0.47
1:Q:16:LEU:HD21	1:Q:66:ILE:HD11	1.97	0.47
1:Q:176:HIS:N	1:Q:230:LEU:O	2.43	0.47
1:Q:248:LYS:HD3	1:Q:250:VAL:CG2	2.45	0.47
2:R:90:ASP:HA	2:R:114:LYS:HE2	1.97	0.47
2:B:272:SER:OG	2:B:290:SER:O	2.23	0.47
1:C:272:ASP:HB2	1:C:288:PHE:CD1	2.50	0.47
2:D:47:ASP:OD1	2:D:48:SER:N	2.48	0.47
2:D:149:CYS:HA	2:D:152:ASN:HB3	1.95	0.47
2:D:159:LYS:HB2	2:D:218:LEU:HD13	1.97	0.47
1:E:171:THR:O	1:E:242:LEU:HD12	2.15	0.47
2:F:78:ASN:HD22	2:F:81:ASN:CG	2.19	0.47
2:F:287:ASP:OD1	2:F:315:TRP:NE1	2.44	0.47
1:G:11:ILE:N	3:G:401:NAD:O2N	2.45	0.47
1:G:101:ASP:OD2	1:G:104:GLY:N	2.48	0.47
1:G:126:PRO:CG	1:G:144:ILE:HG22	2.44	0.47
1:G:234:THR:HG21	1:G:237:VAL:HB	1.97	0.47
1:G:252:ALA:O	1:G:255:VAL:N	2.48	0.47
2:H:77:ARG:H	2:H:77:ARG:HG2	1.55	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:147:ALA:O	2:H:317:TYR:OH	2.33	0.47
1:I:100:VAL:HB	1:I:122(A):LYS:HE3	1.96	0.47
1:K:25:LEU:HD13	1:K:329:ALA:HB2	1.96	0.47
1:K:92:VAL:H	1:K:116:VAL:HG22	1.79	0.47
1:K:145:SER:OG	1:K:146:ASN:N	2.47	0.47
2:L:2:LYS:N	2:L:90:ASP:OD2	2.48	0.47
1:O:50:LEU:HD21	1:O:315:TRP:CH2	2.50	0.46
1:O:312:ASP:OD1	1:O:314:GLU:N	2.45	0.46
2:P:84:TRP:NE1	2:P:108:HIS:HA	2.29	0.46
2:P:218:LEU:HB3	2:P:221:LEU:HB2	1.96	0.46
1:Q:164:GLU:CD	1:Q:258:ALA:HB1	2.36	0.46
1:Q:219:PRO:HB3	1:Q:222:LYS:HZ3	1.80	0.46
2:R:179:THR:H	2:R:182:GLN:CD	2.18	0.46
1:A:95:GLY:O	3:A:401:NAD:H4D	2.15	0.46
1:A:188:SER:HB2	1:A:196:ALA:HA	1.97	0.46
2:B:107:LYS:HA	2:B:110:GLN:CD	2.35	0.46
2:B:239:VAL:HG13	2:B:310:TRP:CG	2.50	0.46
2:B:259:PHE:HA	2:B:262:SER:HB3	1.97	0.46
2:D:47:ASP:CG	2:D:50:LEU:H	2.16	0.46
1:E:116:VAL:O	1:E:144:ILE:HG23	2.15	0.46
1:E:139:HIS:CG	1:E:333:PRO:HD3	2.50	0.46
1:E:279:VAL:HB	1:G:202:ASN:ND2	2.30	0.46
2:F:139:HIS:HB3	2:F:333:GLN:CD	2.35	0.46
2:F:199:ALA:O	2:F:202:ASN:N	2.46	0.46
2:H:80:VAL:HA	2:H:111:ALA:HB2	1.98	0.46
1:I:176:HIS:CD2	1:I:231:ARG:HG2	2.50	0.46
2:J:39:GLN:O	2:J:43:LEU:HG	2.16	0.46
1:K:139:HIS:HB3	1:K:333:PRO:HD2	1.96	0.46
2:L:10:ARG:HG3	3:L:401:NAD:O1N	2.15	0.46
2:L:78:ASN:ND2	2:L:81:ASN:OD1	2.37	0.46
2:L:236:ASN:O	2:L:313:ASN:ND2	2.33	0.46
1:O:58:LYS:HA	1:O:58:LYS:HD2	1.70	0.46
2:P:11:ILE:HG22	2:P:318:SER:HB3	1.97	0.46
2:P:28:VAL:O	2:P:72:LYS:NZ	2.24	0.46
2:P:190:HIS:CG	2:P:191:ARG:N	2.82	0.46
1:Q:252:ALA:HB1	1:Q:297:THR:HB	1.97	0.46
2:R:122:GLY:HA3	2:R:125:ILE:HG12	1.97	0.46
2:R:183:ARG:HH21	2:R:190:HIS:HA	1.80	0.46
1:A:190:HIS:HE1	1:A:191:ARG:NH2	2.09	0.46
1:A:202:ASN:HD21	1:C:281:VAL:H	1.63	0.46
2:B:12:GLY:O	2:B:16:LEU:N	2.38	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:15:PHE:CG	2:B:322:VAL:HG22	2.50	0.46
2:B:29:VAL:N	2:B:71:ILE:HG23	2.31	0.46
2:B:38:LYS:NZ	2:B:39:GLN:HG3	2.30	0.46
2:B:272:SER:O	2:B:291:THR:HA	2.15	0.46
1:C:129:VAL:CA	1:C:324:LEU:HD21	2.45	0.46
1:C:186:ASP:OD1	1:C:198:ALA:HB2	2.15	0.46
2:D:316:GLY:HA2	2:D:319:GLN:HB2	1.96	0.46
1:E:60:ILE:HG12	1:E:60(A):ASP:N	2.31	0.46
1:E:244:VAL:O	1:E:305:VAL:HG13	2.15	0.46
1:E:252:ALA:O	1:E:255:VAL:N	2.48	0.46
1:E:293:ASP:O	1:E:297:THR:HG23	2.14	0.46
2:F:107:LYS:HA	2:F:110:GLN:CD	2.36	0.46
2:F:152:ASN:ND2	2:F:317:TYR:HA	2.30	0.46
2:F:190:HIS:CE1	2:F:192:ASP:HB3	2.51	0.46
2:F:228:ILE:HG23	2:H:306:LYS:HD2	1.97	0.46
1:G:38:LYS:O	1:G:41:THR:OG1	2.33	0.46
1:G:274:CYS:SG	1:G:275:ASP:N	2.88	0.46
2:H:41:SER:OG	2:H:42:HIS:N	2.47	0.46
1:I:5:ILE:HG13	1:I:30:VAL:HG22	1.97	0.46
1:I:201:LEU:HD12	1:I:201:LEU:HA	1.64	0.46
2:J:14:ASN:ND2	2:J:314:GLU:HB3	2.30	0.46
2:J:16:LEU:HD13	2:J:44:LEU:HD13	1.96	0.46
2:J:25:LEU:HD11	2:J:326:ASP:HA	1.98	0.46
2:J:249:LYS:NZ	2:J:301:GLY:O	2.31	0.46
2:J:273:VAL:HA	2:J:292:ILE:H	1.80	0.46
2:L:78:ASN:OD1	2:L:80:VAL:HG23	2.14	0.46
2:L:83:PRO:HB2	2:L:86:ASP:OD2	2.14	0.46
2:L:169:LYS:HB2	2:L:245:GLN:HB3	1.97	0.46
1:O:18:CYS:O	1:O:18(A):TRP:C	2.54	0.46
1:O:33:SER:OG	1:O:77:ARG:CD	2.63	0.46
1:O:42:HIS:CG	2:R:193:LEU:HD22	2.50	0.46
1:O:186:ASP:OD1	1:O:198:ALA:N	2.48	0.46
1:O:222:LYS:HA	1:O:222:LYS:HD2	1.60	0.46
2:P:14:ASN:ND2	2:P:315:TRP:HA	2.30	0.46
2:P:72:LYS:NZ	2:P:72:LYS:HB2	2.29	0.46
1:Q:135:LYS:HG2	1:Q:136:ASP:N	2.29	0.46
2:R:58:LYS:O	2:R:59:THR:C	2.52	0.46
2:R:317:TYR:O	2:R:321:VAL:HG23	2.15	0.46
1:A:45:LYS:O	1:A:52:THR:OG1	2.18	0.46
1:A:112:GLY:O	1:A:114:LYS:NZ	2.49	0.46
2:B:102:ARG:NH2	2:B:125:ILE:HA	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:316:GLY:HA2	2:B:320:ARG:HH21	1.79	0.46
1:C:202:ASN:HD22	1:C:202:ASN:N	2.14	0.46
1:C:249:GLY:O	1:C:250:VAL:C	2.53	0.46
2:D:20:ARG:HH22	2:D:323:ASP:CG	2.19	0.46
2:D:117:LEU:HA	2:D:144:ILE:O	2.14	0.46
2:D:243:VAL:HA	2:D:305:VAL:O	2.15	0.46
1:E:43:LEU:HD22	2:H:186:ASP:HB2	1.95	0.46
1:E:356:GLU:CA	1:K:183:ARG:HH22	2.27	0.46
2:F:168:ILE:N	2:F:245:GLN:O	2.48	0.46
2:F:174:THR:OG1	2:F:311:TYR:OH	2.11	0.46
1:G:219:PRO:O	1:G:222:LYS:HG2	2.15	0.46
1:G:238:SER:HB2	1:G:311:TYR:O	2.14	0.46
1:G:299:VAL:HG23	1:G:305:VAL:HG12	1.98	0.46
1:I:4:ALA:HB1	1:I:29:VAL:HB	1.98	0.46
1:I:263:ALA:O	1:I:268:LYS:HB2	2.13	0.46
1:I:301:GLY:HA3	1:K:169:LYS:HE2	1.96	0.46
2:J:107:LYS:HA	2:J:110:GLN:CD	2.36	0.46
1:K:40:ALA:O	1:K:44:LEU:N	2.47	0.46
1:K:296:LEU:HA	1:K:296:LEU:HD13	1.79	0.46
2:L:47:ASP:OD1	2:L:48:SER:N	2.48	0.46
2:L:117:LEU:HA	2:L:144:ILE:O	2.15	0.46
2:L:255:VAL:HG23	2:L:256:ASN:ND2	2.30	0.46
1:O:345:LEU:H	1:C:191:ARG:NH1	2.11	0.46
2:P:2:LYS:HE3	2:P:87:MET:HB3	1.98	0.46
2:P:287:ASP:OD1	2:P:315:TRP:NE1	2.40	0.46
2:R:18(A):TRP:HZ3	2:R:18(B):HIS:CE1	2.33	0.46
2:R:221:LEU:HA	2:R:224:LYS:HE2	1.97	0.46
2:R:232:VAL:O	2:R:234:THR:N	2.41	0.46
2:B:173:THR:HG1	2:D:306:LYS:NZ	2.11	0.46
1:C:152:ASN:HD21	1:C:320:ARG:HB2	1.80	0.46
1:C:183:ARG:HG2	1:C:187:ALA:H	1.79	0.46
1:C:186:ASP:H	1:C:198:ALA:HB2	1.80	0.46
2:D:83:PRO:HB2	2:D:86:ASP:OD2	2.14	0.46
2:D:100:VAL:HG22	2:D:122(A):LYS:N	2.31	0.46
2:D:124:ASP:OD1	2:D:124:ASP:N	2.48	0.46
2:D:160:VAL:HA	2:D:163:GLN:HB2	1.97	0.46
1:E:122(A):LYS:NZ	1:E:122(A):LYS:HA	2.30	0.46
1:E:154:LEU:HD11	1:E:172:MET:HG3	1.97	0.46
1:E:176:HIS:CD2	1:E:231:ARG:HG3	2.50	0.46
2:F:183:ARG:HH22	2:F:191:ARG:NH1	2.14	0.46
2:F:251:PHE:N	2:F:254:GLU:OE1	2.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1:LEU:HG	1:G:332:TRP:CD2	2.50	0.46
1:G:10:ARG:NH1	1:G:13:ARG:HH21	2.13	0.46
1:G:72:LYS:HD2	1:G:87:LEU:HD11	1.97	0.46
1:G:128:TYR:HB2	1:G:145:SER:O	2.15	0.46
1:G:134:GLU:OE1	1:G:134:GLU:N	2.48	0.46
1:G:270:VAL:HA	1:G:320:ARG:NH1	2.30	0.46
1:G:293:ASP:OD2	1:G:295:SER:OG	2.32	0.46
2:H:197:ARG:NH2	2:H:198:ALA:HB3	2.29	0.46
2:H:264:ASP:O	2:H:268:LYS:NZ	2.46	0.46
1:I:0:LYS:N	1:I:24:PRO:O	2.40	0.46
1:I:228:ILE:HD11	1:I:230:LEU:HD21	1.97	0.46
2:J:79:PRO:HA	2:J:82:LEU:HD12	1.97	0.46
2:J:118:ILE:HD13	2:J:118:ILE:HA	1.69	0.46
2:L:181:ASP:HB3	2:L:182:GLN:NE2	2.28	0.46
1:O:66:ILE:CG1	1:O:69:LYS:HB2	2.41	0.46
1:O:171:THR:OG1	1:O:227:GLY:HA3	2.15	0.46
2:P:7:GLY:N	2:P:31:ASN:O	2.48	0.46
2:P:168:ILE:HG22	2:P:169:LYS:HG3	1.95	0.46
2:P:218:LEU:HB3	2:P:221:LEU:HD13	1.96	0.46
2:P:279:VAL:HG23	2:P:282:ASP:OD1	2.14	0.46
2:P:326:ASP:HA	2:P:329:ALA:HB3	1.98	0.46
1:Q:190:HIS:CD2	1:Q:191:ARG:N	2.83	0.46
1:Q:191:ARG:HE	1:I:358:CYS:HB2	1.80	0.46
2:R:13:ARG:HE	2:R:43:LEU:HD22	1.80	0.46
2:R:114:LYS:O	2:R:142:THR:OG1	2.23	0.46
2:R:292:ILE:HG23	2:R:308:ILE:O	2.15	0.46
1:A:129:VAL:HG12	1:A:133:ASN:ND2	2.28	0.46
1:A:176:HIS:ND1	1:A:177:SER:N	2.64	0.46
1:A:179:THR:N	1:A:182:GLN:OE1	2.33	0.46
1:A:238:SER:HB3	1:A:311:TYR:CE1	2.51	0.46
2:B:77:ARG:HH11	3:B:401:NAD:C6A	2.29	0.46
2:B:312:ASP:OD2	2:B:315:TRP:HB3	2.15	0.46
1:C:6:ASN:HD21	1:C:96:THR:H	1.64	0.46
1:C:128:TYR:HD2	1:C:144:ILE:HD13	1.79	0.46
1:C:150:THR:O	1:C:154:LEU:HG	2.15	0.46
1:C:326:ASP:O	1:C:329:ALA:N	2.48	0.46
2:D:281:ILE:HD12	2:D:284:ARG:HH21	1.79	0.46
1:E:41:THR:HG23	1:E:57:VAL:HG12	1.98	0.46
1:E:264:ALA:HA	1:E:268:LYS:NZ	2.30	0.46
1:E:273:VAL:HA	1:E:292:ILE:N	2.29	0.46
2:F:94:GLU:OE2	2:F:98:VAL:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:118:ILE:HB	2:F:145:SER:HB2	1.96	0.46
2:F:168:ILE:HG22	2:F:169:LYS:HG3	1.97	0.46
2:F:281:ILE:CD1	2:F:284:ARG:HE	2.29	0.46
1:G:6:ASN:N	1:G:93:ILE:O	2.48	0.46
3:G:401:NAD:H3D	3:G:401:NAD:O5B	2.15	0.46
2:H:247:SER:OG	2:H:248:LYS:N	2.49	0.46
1:I:204:VAL:HG11	1:I:231:ARG:NH1	2.30	0.46
1:I:222:LYS:O	1:I:224:LYS:HG3	2.16	0.46
2:J:1:LEU:HD23	2:J:25:LEU:HD12	1.98	0.46
1:K:44:LEU:HG	1:K:45:LYS:N	2.29	0.46
1:K:45:LYS:NZ	1:K:56:ASP:OD1	2.44	0.46
1:K:109:ILE:HD12	1:K:113:ALA:HB3	1.97	0.46
1:K:313:ASN:ND2	1:K:313:ASN:H	2.14	0.46
2:L:6:ASN:HB3	2:L:94:GLU:HA	1.98	0.46
2:L:220:ASN:HD22	2:L:221:LEU:HD12	1.81	0.46
2:L:253:GLU:OE2	2:L:257:ALA:N	2.49	0.46
2:L:316:GLY:HA2	2:L:319:GLN:HB2	1.96	0.46
1:O:46:TYR:HD1	1:O:52:THR:HG1	1.61	0.46
1:O:81:LYS:HE3	1:O:81:LYS:HB2	1.81	0.46
1:O:90:ASP:HA	1:O:114:LYS:NZ	2.30	0.46
1:O:190:HIS:CE1	1:O:195:ARG:N	2.84	0.46
2:P:107:LYS:HA	2:P:110:GLN:CD	2.36	0.46
2:P:168:ILE:N	2:P:245:GLN:O	2.48	0.46
2:P:208:THR:HG22	2:P:229:ALA:HB2	1.97	0.46
2:P:228:ILE:N	2:R:306:LYS:HZ2	2.10	0.46
1:Q:18(A):TRP:NE1	1:Q:25:LEU:O	2.49	0.46
1:Q:109:ILE:HD13	1:Q:113:ALA:HB3	1.98	0.46
2:R:193:LEU:HA	2:R:196:ALA:HB3	1.97	0.46
1:A:135:LYS:HZ2	1:A:135:LYS:H	1.64	0.46
2:B:28:VAL:HG22	2:B:69:LYS:HZ3	1.80	0.46
2:B:115:LYS:HA	2:B:142:THR:OG1	2.15	0.46
2:B:137:TYR:OH	2:B:139:HIS:ND1	2.49	0.46
2:B:204:VAL:N	2:B:231:ARG:O	2.48	0.46
1:C:94:GLU:N	1:C:117:ILE:O	2.44	0.46
2:D:190:HIS:ND1	2:D:195:ARG:HB2	2.31	0.46
1:G:29:VAL:HA	1:G:72:LYS:O	2.16	0.46
1:G:159:LYS:HE2	1:G:267:LEU:HD11	1.97	0.46
2:H:84:TRP:HB2	2:H:111:ALA:C	2.35	0.46
2:H:185:LEU:O	2:H:187:ALA:N	2.47	0.46
2:H:274:CYS:HB3	2:H:276:GLU:CD	2.35	0.46
1:I:11:ILE:HB	3:I:401:NAD:H52N	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:20:ARG:NE	1:I:322:VAL:HG11	2.27	0.46
1:I:47:ASP:OD2	1:I:50:LEU:N	2.27	0.46
1:I:65:SER:HA	1:I:71:ILE:HG13	1.98	0.46
1:I:165:LEU:O	1:I:248:LYS:HG3	2.16	0.46
1:I:293:ASP:OD2	1:I:295:SER:OG	2.21	0.46
1:K:240:VAL:HG13	1:K:311:TYR:HE1	1.79	0.46
2:L:135:GLU:CD	2:L:135:GLU:H	2.18	0.46
1:O:211:ALA:HB1	1:O:226:ASN:HA	1.98	0.46
1:O:241:ASP:OD1	1:O:242:LEU:N	2.48	0.46
2:P:11:ILE:CD1	3:P:401:NAD:H2N	2.46	0.46
2:P:78:ASN:HD22	2:P:81:ASN:CG	2.18	0.46
2:P:176:HIS:CG	2:P:177:SER:N	2.83	0.46
2:P:192:ASP:OD2	2:P:195:ARG:N	2.34	0.46
2:P:270:ILE:O	2:P:271:LEU:HD13	2.15	0.46
1:Q:5:ILE:HG21	1:Q:8:PHE:HD1	1.81	0.46
1:Q:128:TYR:HD2	1:Q:144:ILE:HD12	1.79	0.46
1:Q:241:ASP:HA	1:Q:308:VAL:HA	1.97	0.46
2:R:32:ASP:O	2:R:75:SER:HA	2.16	0.46
2:R:218:LEU:HA	2:R:218:LEU:HD23	1.83	0.46
2:R:242:LEU:HD23	2:R:307:VAL:HG21	1.96	0.46
1:A:194:ARG:HH21	1:C:277:PRO:HA	1.80	0.46
2:B:31:ASN:OD1	2:B:74:VAL:HG23	2.16	0.46
2:D:218:LEU:HD23	2:D:218:LEU:HA	1.81	0.46
2:D:313:ASN:N	2:D:313:ASN:OD1	2.48	0.46
1:E:171:THR:HG23	1:E:243:VAL:HG23	1.96	0.46
2:F:44:LEU:O	2:F:53:PHE:HB2	2.16	0.46
1:G:130:VAL:HG21	1:G:270:VAL:HG11	1.97	0.46
1:G:169:LYS:HD3	1:G:224:LYS:HB3	1.98	0.46
1:G:247:GLU:OE1	1:G:248:LYS:N	2.38	0.46
1:G:332:TRP:CD1	1:G:333:PRO:HD2	2.50	0.46
1:I:172:MET:SD	1:I:173:THR:N	2.89	0.46
2:J:312:ASP:CG	2:J:315:TRP:HB3	2.36	0.46
1:K:41:THR:HG21	1:K:59:ILE:CG1	2.46	0.46
1:K:85:ALA:N	1:K:112:GLY:HA3	2.31	0.46
1:K:173:THR:OG1	1:K:228:ILE:HD11	2.16	0.46
2:L:17:ARG:HG2	2:L:53:PHE:CE2	2.51	0.46
1:O:41:THR:HG22	1:O:42:HIS:N	2.30	0.46
1:O:83:PRO:HB3	1:O:86:GLU:HB2	1.98	0.46
2:P:190:HIS:CE1	2:P:192:ASP:HB3	2.51	0.46
2:P:237:VAL:HG13	2:P:312:ASP:HA	1.97	0.46
1:Q:153:CYS:HB2	1:Q:311:TYR:CD2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:36:GLY:H	2:R:39:GLN:NE2	2.14	0.46
2:R:253:GLU:OE2	2:R:257:ALA:N	2.48	0.46
1:C:89:ILE:HA	1:C:89:ILE:HD13	1.80	0.46
2:D:181:ASP:HB3	2:D:182:GLN:HE21	1.79	0.46
2:D:194:ARG:O	2:D:197:ARG:N	2.49	0.46
2:D:232:VAL:O	2:D:234:THR:N	2.47	0.46
1:E:168:VAL:O	1:E:169:LYS:HD2	2.15	0.46
1:E:297:THR:HG22	1:E:307:VAL:HA	1.96	0.46
1:E:329:ALA:HA	1:E:332:TRP:HD1	1.80	0.46
1:E:346:GLU:HA	1:K:191:ARG:HH12	1.79	0.46
1:G:271:LEU:HA	1:G:290:SER:OG	2.16	0.46
2:H:45:LYS:O	2:H:53:PHE:N	2.39	0.46
1:I:114:LYS:O	1:I:115:LYS:HD3	2.16	0.46
1:I:272:ASP:HB2	1:I:288:PHE:HB2	1.97	0.46
2:J:3:VAL:HG13	2:J:91:LEU:O	2.14	0.46
2:J:82:LEU:HB2	2:J:84:TRP:CD1	2.51	0.46
2:J:183:ARG:CZ	2:J:190:HIS:HB2	2.45	0.46
2:J:286:THR:HG22	2:J:288:VAL:HG13	1.96	0.46
1:O:124:ASP:N	1:C:142:ASN:HD21	2.13	0.46
1:O:139:HIS:NE2	1:O:332:TRP:HA	2.31	0.46
2:P:58:LYS:O	2:P:65:SER:N	2.49	0.46
2:P:279:VAL:O	2:P:282:ASP:N	2.48	0.46
2:R:194:ARG:HD3	2:R:205:PRO:HD2	1.97	0.46
1:A:260:ARG:HA	1:A:263:ALA:HB3	1.98	0.46
1:A:293:ASP:OD1	1:A:295:SER:N	2.48	0.46
1:A:346:GLU:O	1:A:350:LYS:N	2.46	0.46
2:B:33:THR:H	3:B:401:NAD:H2A	1.81	0.46
2:B:226:ASN:HB3	2:D:300:MET:HE1	1.98	0.46
2:B:279:VAL:HB	2:D:202:ASN:HB3	1.97	0.46
1:C:10:ARG:H	3:C:401:NAD:PA	2.39	0.46
1:C:57:VAL:HG22	1:C:66:ILE:HG23	1.98	0.46
1:C:97:GLY:HA3	3:C:401:NAD:O3D	2.16	0.46
1:C:313:ASN:ND2	1:C:313:ASN:H	2.12	0.46
2:D:3:VAL:HG13	2:D:91:LEU:O	2.16	0.46
1:E:169:LYS:HG2	1:E:245:ASN:HD21	1.81	0.46
1:E:194:ARG:HD2	1:E:205:PRO:HD2	1.97	0.46
1:E:246:ILE:HG22	1:E:303:ASP:C	2.35	0.46
1:E:314:GLU:O	1:E:317:TYR:HB3	2.16	0.46
2:F:218:LEU:CB	2:F:221:LEU:HB2	2.46	0.46
2:F:293:ASP:HB3	2:F:308:ILE:HG13	1.98	0.46
2:F:306:LYS:NZ	2:H:173:THR:HG1	2.12	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4:ALA:O	1:G:93:ILE:HG12	2.16	0.46
1:G:6:ASN:HD22	1:G:95:GLY:N	2.14	0.46
1:G:10:ARG:NH1	1:G:13:ARG:HE	2.12	0.46
1:G:10:ARG:HG3	1:G:11:ILE:N	2.31	0.46
1:G:202:ASN:HD21	1:G:204:VAL:HG23	1.81	0.46
2:H:172:MET:SD	2:H:227:GLY:N	2.88	0.46
2:H:183:ARG:HH22	2:H:191:ARG:HH12	1.62	0.46
1:I:131:GLY:HA2	1:I:267:LEU:HD22	1.98	0.46
1:I:174:THR:HA	1:I:240:VAL:HA	1.97	0.46
2:J:0:LYS:HZ2	2:J:1:LEU:HD22	1.80	0.46
2:J:84:TRP:CD1	2:J:111:ALA:HB3	2.50	0.46
2:J:137:TYR:OH	2:J:139:HIS:ND1	2.48	0.46
2:J:154:LEU:HA	2:J:157:PHE:CZ	2.51	0.46
2:J:190:HIS:CE1	2:J:195:ARG:HB2	2.50	0.46
2:J:239:VAL:HG13	2:J:310:TRP:CG	2.51	0.46
2:J:317:TYR:O	2:J:321:VAL:HG23	2.16	0.46
2:L:82:LEU:O	2:L:111:ALA:HB1	2.15	0.46
1:O:148:SER:OG	1:O:151:THR:HG23	2.16	0.46
1:O:276:ILE:O	1:O:278:LEU:HG	2.16	0.46
2:P:64:ILE:N	2:P:71:ILE:H	2.09	0.46
2:P:120:ALA:HA	3:P:401:NAD:H6N	1.96	0.46
2:P:185:LEU:HD11	1:Q:178:TYR:CE1	2.51	0.46
1:Q:3:VAL:N	1:Q:26:ASP:O	2.48	0.46
1:Q:50:LEU:HD21	1:Q:54:LYS:NZ	2.31	0.46
1:Q:274:CYS:N	1:Q:292:ILE:O	2.45	0.46
1:Q:315:TRP:O	1:Q:319:GLN:HG3	2.15	0.46
2:R:32:ASP:OD1	2:R:33:THR:N	2.49	0.46
2:R:287:ASP:OD1	2:R:287:ASP:N	2.49	0.46
1:A:132:VAL:HG22	1:A:159:LYS:HD2	1.98	0.46
1:A:172:MET:HG2	1:A:242:LEU:HB2	1.97	0.46
1:A:202:ASN:ND2	1:C:279:VAL:HG23	2.13	0.46
1:A:287:ASP:OD1	1:A:315:TRP:NE1	2.46	0.46
2:B:236:ASN:CG	2:B:237:VAL:H	2.17	0.46
1:C:214:VAL:HG23	1:C:215:SER:H	1.80	0.46
2:D:16:LEU:HD13	2:D:44:LEU:HD13	1.97	0.46
2:D:44:LEU:O	2:D:53:PHE:HB2	2.16	0.46
2:D:285:CYS:O	2:D:315:TRP:NE1	2.49	0.46
1:E:107:LYS:HA	1:E:110:GLN:HB2	1.97	0.46
1:E:137:TYR:CE2	1:E:331:LYS:HD2	2.51	0.46
1:E:222:LYS:HD3	1:E:222:LYS:HA	1.68	0.46
1:E:230:LEU:O	1:E:232:VAL:HG22	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:28:VAL:C	2:F:71:ILE:HG23	2.35	0.46
1:G:174:THR:H	1:G:229:ALA:HA	1.81	0.46
1:G:248:LYS:CA	1:G:248(A):VAL:HG13	2.41	0.46
1:G:248(A):VAL:HG23	1:G:250:VAL:HG22	1.98	0.46
3:G:401:NAD:O2A	3:G:401:NAD:H4B	2.16	0.46
2:H:90:ASP:HA	2:H:114:LYS:HE2	1.97	0.46
2:H:181:ASP:HB3	2:H:182:GLN:NE2	2.31	0.46
2:H:258:ALA:HA	2:H:261:GLU:HG3	1.96	0.46
2:H:297:THR:HG22	2:H:307:VAL:HA	1.98	0.46
1:I:59:ILE:HA	1:I:64:PHE:HB2	1.98	0.46
1:I:84:TRP:HB2	1:I:112:GLY:C	2.36	0.46
1:I:132:VAL:N	1:I:134:GLU:OE1	2.49	0.46
1:I:165:LEU:HD21	1:I:255:VAL:HG22	1.98	0.46
1:I:179:THR:HG23	1:I:231:ARG:HD3	1.98	0.46
1:I:262:ALA:C	1:I:265:GLY:H	2.20	0.46
2:J:77:ARG:HD2	3:J:401:NAD:H62A	1.78	0.46
2:J:173:THR:OG1	2:J:228:ILE:HG13	2.16	0.46
2:J:175:THR:C	2:J:238:SER:HG	2.18	0.46
2:L:55:ALA:HB1	2:L:67:ASP:OD1	2.16	0.46
2:L:149:CYS:HA	2:L:152:ASN:HB3	1.98	0.46
2:L:279:VAL:N	2:L:282:ASP:OD2	2.25	0.46
1:O:2:LYS:HD3	1:O:88:GLY:HA3	1.98	0.45
1:O:10:ARG:CZ	2:R:185:LEU:HB3	2.46	0.45
1:O:46:TYR:HA	1:O:52:THR:HA	1.96	0.45
1:O:77:ARG:HA	3:O:401:NAD:N1A	2.31	0.45
1:O:92:VAL:O	1:O:116:VAL:HA	2.16	0.45
1:O:221:LEU:HA	1:O:221:LEU:HD13	1.80	0.45
1:O:323:ASP:HA	1:O:326:ASP:OD2	2.16	0.45
2:P:183:ARG:HH22	2:P:191:ARG:NH2	2.13	0.45
2:P:194:ARG:NE	2:P:205:PRO:O	2.49	0.45
2:P:218:LEU:CB	2:P:221:LEU:HB2	2.46	0.45
2:P:228:ILE:HG23	2:R:306:LYS:HD2	1.98	0.45
1:A:165:LEU:O	1:A:248:LYS:N	2.49	0.45
1:C:42:HIS:NE2	2:D:277:PRO:O	2.48	0.45
1:C:230:LEU:O	1:C:232:VAL:HG12	2.16	0.45
1:C:237:VAL:HG11	1:C:280:SER:CB	2.26	0.45
1:C:359:LYS:O	1:C:361:TYR:N	2.49	0.45
2:D:2:LYS:H	2:D:2:LYS:HG2	1.62	0.45
2:D:134:GLU:HB2	2:D:327:ILE:HD13	1.98	0.45
2:D:204:VAL:HB	2:D:231:ARG:HB2	1.98	0.45
1:E:84:TRP:CD1	1:E:111:ALA:HB3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:218:LEU:HD13	1:E:219:PRO:HD2	1.99	0.45
2:F:293:ASP:O	2:F:297:THR:HG23	2.16	0.45
1:G:203:ILE:HD12	1:G:233:PRO:HD3	1.97	0.45
2:H:287:ASP:OD1	2:H:287:ASP:N	2.49	0.45
1:I:18(A):TRP:CE2	1:I:27:VAL:HG12	2.51	0.45
2:J:115:LYS:HE3	2:J:334:UNK:C	2.46	0.45
2:J:121:PRO:HG3	2:J:148:SER:H	1.80	0.45
2:J:154:LEU:HA	2:J:157:PHE:CE1	2.51	0.45
2:J:197:ARG:HD2	2:J:197:ARG:HA	1.76	0.45
1:K:0:LYS:N	1:K:24:PRO:O	2.39	0.45
1:K:94:GLU:HB3	1:K:118:ILE:HG12	1.98	0.45
1:K:107:LYS:HA	1:K:110:GLN:HB2	1.98	0.45
2:L:44:LEU:HD23	2:L:57:VAL:CG2	2.46	0.45
2:L:115:LYS:HE2	2:L:142:THR:HB	1.97	0.45
2:L:128:TYR:HA	2:L:133:ASN:ND2	2.31	0.45
2:L:157:PHE:CD2	2:L:158:VAL:HG13	2.51	0.45
2:P:13:ARG:HA	2:P:16:LEU:HB2	1.99	0.45
2:P:246:VAL:HG22	2:P:303:ASP:HA	1.98	0.45
1:Q:256:ASN:O	1:Q:260:ARG:NE	2.34	0.45
2:R:84:TRP:HA	2:R:89:ILE:HG12	1.98	0.45
2:R:85:GLY:N	2:R:112:GLY:HA3	2.31	0.45
2:R:168:ILE:N	2:R:245:GLN:O	2.49	0.45
2:R:243:VAL:HA	2:R:306:LYS:HA	1.99	0.45
2:B:206:THR:HG23	2:B:229:ALA:HB3	1.98	0.45
2:D:20:ARG:NH2	2:D:323:ASP:OD1	2.49	0.45
2:D:215:ALA:HB1	2:D:222:LYS:HD3	1.99	0.45
1:E:45:LYS:HB3	1:E:46:TYR:CE1	2.51	0.45
1:E:123(A):SER:HB3	1:K:141:ALA:HA	1.98	0.45
2:F:137:TYR:OH	2:F:328:VAL:HA	2.16	0.45
2:F:208:THR:HG22	2:F:229:ALA:HB2	1.99	0.45
1:G:244:VAL:O	1:G:304:MET:HA	2.16	0.45
2:H:7:GLY:N	2:H:31:ASN:O	2.49	0.45
2:H:84:TRP:CD1	2:H:111:ALA:HB3	2.52	0.45
2:H:135:GLU:H	2:H:135:GLU:CD	2.17	0.45
2:H:253:GLU:OE2	2:H:257:ALA:N	2.50	0.45
2:J:12:GLY:O	2:J:16:LEU:N	2.38	0.45
2:J:193:LEU:HA	2:J:196:ALA:HB3	1.99	0.45
2:L:33:THR:HA	2:L:75:SER:HB3	1.98	0.45
2:L:243:VAL:HA	2:L:305:VAL:O	2.15	0.45
1:O:186:ASP:HA	1:O:196:ALA:O	2.17	0.45
1:O:293:ASP:OD2	1:O:308:VAL:HG11	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:38:LYS:HZ2	2:P:38:LYS:H	1.63	0.45
2:P:79:PRO:HB3	2:P:108:HIS:ND1	2.31	0.45
2:P:137:TYR:CE2	2:P:327:ILE:HG22	2.52	0.45
2:P:331:LYS:O	2:P:333:GLN:HG3	2.17	0.45
1:Q:148:SER:HA	3:Q:401:NAD:H5N	1.99	0.45
2:R:17:ARG:HD3	2:R:50:LEU:HD12	1.99	0.45
2:R:152:ASN:OD1	2:R:320:ARG:HG3	2.16	0.45
1:A:1:LEU:O	1:A:3:VAL:HG23	2.17	0.45
1:A:123(A):SER:CB	1:G:124:ASP:HB3	2.46	0.45
2:B:115:LYS:HE3	2:B:334:UNK:C	2.46	0.45
2:B:154:LEU:HA	2:B:157:PHE:CE1	2.51	0.45
2:B:167:ILE:HG23	2:B:246:VAL:HG12	1.98	0.45
1:C:67:ASP:OD1	1:C:67:ASP:N	2.49	0.45
1:C:77:ARG:HA	3:C:401:NAD:N1A	2.32	0.45
1:C:252:ALA:O	1:C:255:VAL:N	2.50	0.45
2:D:65:SER:HA	2:D:70:VAL:N	2.30	0.45
1:E:206:THR:O	1:E:228:ILE:HB	2.17	0.45
1:E:362:GLU:O	3:K:401:NAD:H2D	2.17	0.45
2:F:47:ASP:HB3	2:F:51:GLY:O	2.17	0.45
2:F:154:LEU:O	2:F:158:VAL:HG22	2.17	0.45
2:F:281:ILE:HD13	2:F:284:ARG:HH21	1.81	0.45
1:G:101:ASP:HB2	1:G:103:PRO:HG2	1.97	0.45
1:G:139(A):ASP:OD2	1:G:139(A):ASP:N	2.49	0.45
1:G:324:LEU:O	1:G:327:LEU:HB2	2.17	0.45
2:H:251:PHE:CE2	2:H:253:GLU:HB3	2.51	0.45
2:H:257:ALA:HA	2:H:260:ARG:HB2	1.98	0.45
1:I:8:PHE:CG	1:I:13:ARG:HG2	2.51	0.45
1:I:17:ARG:NH2	1:I:53:PHE:HA	2.31	0.45
1:I:176:HIS:O	1:I:232:VAL:HG13	2.16	0.45
1:I:224:LYS:HA	1:K:300:MET:HE2	1.98	0.45
2:J:278:LEU:C	2:L:194:ARG:HH12	2.19	0.45
1:K:236:ASN:HD21	1:K:314:GLU:H	1.64	0.45
2:L:100:VAL:HG22	2:L:122(A):LYS:N	2.31	0.45
2:L:237:VAL:HG13	2:L:311:TYR:O	2.15	0.45
2:L:273:VAL:HG23	2:L:292:ILE:O	2.17	0.45
1:O:84:TRP:CD1	1:O:111:ALA:HB3	2.52	0.45
2:P:190:HIS:HE1	2:P:192:ASP:HB3	1.82	0.45
2:R:32:ASP:HA	3:R:401:NAD:C2A	2.44	0.45
1:A:105:ALA:HA	1:A:108:HIS:CD2	2.51	0.45
2:B:131:GLY:N	2:B:134:GLU:OE2	2.49	0.45
2:B:154:LEU:HA	2:B:157:PHE:CZ	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:170:GLY:HA2	2:B:244:VAL:HA	1.99	0.45
1:C:15:PHE:O	1:C:18(A):TRP:HB3	2.17	0.45
1:C:30:VAL:HG12	1:C:31:ASN:H	1.81	0.45
1:C:278:LEU:HD22	1:C:282:ASP:HB3	1.97	0.45
2:D:17:ARG:CZ	2:D:53:PHE:HA	2.46	0.45
2:D:117:LEU:HD11	2:D:146:ASN:HB2	1.97	0.45
1:E:6:ASN:O	1:E:95:GLY:N	2.49	0.45
1:E:20:ARG:NH2	1:E:21:LYS:HB2	2.30	0.45
1:E:160:VAL:HG12	1:E:164:GLU:OE2	2.17	0.45
2:F:64:ILE:HG12	2:F:71:ILE:O	2.16	0.45
2:F:173:THR:HB	2:F:241:ASP:OD2	2.15	0.45
1:G:316:GLY:HA2	1:G:319:GLN:OE1	2.17	0.45
2:H:36:GLY:HA3	2:H:38:LYS:HZ1	1.81	0.45
2:H:122:GLY:C	2:H:125:ILE:HG12	2.37	0.45
2:H:198:ALA:O	2:H:200:CYS:N	2.50	0.45
1:I:37:VAL:HG13	1:I:38:LYS:H	1.81	0.45
1:I:92:VAL:O	1:I:117:ILE:HG22	2.17	0.45
1:I:142:ASN:O	1:I:144:ILE:HG12	2.16	0.45
1:I:279:VAL:O	1:I:283:PHE:N	2.49	0.45
1:I:280:SER:O	1:I:284:ARG:N	2.49	0.45
2:J:215:ALA:HB1	2:J:222:LYS:HZ2	1.80	0.45
2:J:297:THR:HA	2:J:307:VAL:HA	1.99	0.45
1:K:320:ARG:HA	1:K:323:ASP:OD2	2.15	0.45
2:L:87:MET:HE3	2:L:89:ILE:HD11	1.99	0.45
1:O:21:LYS:HB2	1:O:21:LYS:HE2	1.85	0.45
1:O:41:THR:O	1:O:57:VAL:HG21	2.16	0.45
1:O:104:GLY:HA2	1:O:107:LYS:HD2	1.99	0.45
1:O:128:TYR:O	1:O:146:ASN:HB2	2.17	0.45
1:O:168:VAL:HB	1:O:245:ASN:ND2	2.31	0.45
1:O:175:THR:N	1:O:239:VAL:O	2.44	0.45
1:O:256:ASN:HD22	1:O:260:ARG:HH12	1.65	0.45
2:P:63:ALA:HA	2:P:71:ILE:C	2.36	0.45
2:P:107:LYS:HA	2:P:110:GLN:HB2	1.99	0.45
1:Q:54:LYS:N	1:Q:54:LYS:HZ2	2.15	0.45
1:Q:243:VAL:HG22	1:Q:306:LYS:HG3	1.97	0.45
1:Q:248:LYS:HD3	1:Q:250:VAL:HG21	1.97	0.45
2:R:251:PHE:CE2	2:R:253:GLU:HB3	2.51	0.45
2:R:257:ALA:HA	2:R:260:ARG:HB2	1.98	0.45
2:B:94:GLU:OE2	2:B:98:VAL:N	2.50	0.45
2:B:193:LEU:HA	2:B:196:ALA:HB3	1.99	0.45
1:C:107:LYS:HB3	1:C:107:LYS:HE2	1.58	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:173:THR:O	1:C:241:ASP:N	2.42	0.45
1:C:244:VAL:O	1:C:304:MET:HA	2.17	0.45
1:C:323:ASP:HA	1:C:326:ASP:OD2	2.16	0.45
2:D:117:LEU:HG	2:D:145:SER:HA	1.98	0.45
2:D:220:ASN:HD22	2:D:221:LEU:HD12	1.81	0.45
1:E:45:LYS:NZ	1:E:57:VAL:H	2.14	0.45
1:E:116:VAL:C	1:E:144:ILE:HG23	2.37	0.45
1:E:132:VAL:HB	1:E:217:VAL:HG21	1.98	0.45
2:F:7:GLY:O	2:F:9:GLY:N	2.49	0.45
2:F:31:ASN:OD1	2:F:74:VAL:HG23	2.16	0.45
2:F:300:MET:HB3	2:H:169:LYS:HD2	1.99	0.45
1:G:11:ILE:HG22	3:G:401:NAD:PN	2.57	0.45
1:G:168:VAL:HB	1:G:245:ASN:O	2.17	0.45
2:H:10:ARG:HD2	2:H:314:GLU:OE2	2.16	0.45
1:I:39:SER:O	1:I:43:LEU:N	2.32	0.45
1:I:106:GLY:HA2	1:I:109:ILE:HB	1.98	0.45
1:I:166:GLY:HA3	1:I:247:GLU:HB2	1.98	0.45
1:I:243:VAL:HG12	1:I:306:LYS:HB2	1.98	0.45
1:I:282:ASP:CG	2:J:46:TYR:HB3	2.36	0.45
1:I:283:PHE:HD2	1:I:310:TRP:CZ3	2.35	0.45
2:J:29:VAL:N	2:J:71:ILE:HG23	2.31	0.45
2:J:82:LEU:O	2:J:84:TRP:N	2.46	0.45
1:K:179:THR:N	1:K:182:GLN:HE22	2.14	0.45
1:K:293:ASP:OD1	1:K:296:LEU:N	2.33	0.45
2:L:174:THR:HG23	2:L:230:LEU:H	1.80	0.45
2:L:204:VAL:HB	2:L:231:ARG:H	1.82	0.45
1:O:84:TRP:HD1	1:O:108:HIS:O	2.00	0.45
1:O:84:TRP:HA	1:O:89:ILE:HB	1.98	0.45
2:P:58:LYS:HG3	2:P:60:ALA:H	1.82	0.45
2:P:91:LEU:HD21	2:P:93:ILE:HD11	1.99	0.45
1:A:49:ILE:HA	1:A:284:ARG:NH1	2.31	0.45
1:A:184:LEU:HG	1:A:185:LEU:HG	1.97	0.45
1:A:216:LEU:HD11	1:G:124:ASP:HB2	1.97	0.45
1:A:313:ASN:O	1:A:317:TYR:HB2	2.17	0.45
1:A:359:LYS:O	1:G:181:ASP:HB2	2.17	0.45
2:B:18:CYS:O	2:B:20:ARG:HG2	2.17	0.45
2:B:18:CYS:CB	2:B:322:VAL:HG21	2.47	0.45
2:D:1:LEU:HD12	2:D:1:LEU:HA	1.82	0.45
1:E:16:LEU:CG	1:E:44:LEU:CD1	2.94	0.45
1:E:41:THR:HG23	1:E:57:VAL:CG1	2.46	0.45
1:E:77:ARG:HA	3:E:401:NAD:N1A	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:134:GLU:OE1	1:E:134:GLU:N	2.36	0.45
1:E:155:ALA:O	1:E:158:VAL:HG22	2.16	0.45
1:E:329:ALA:HA	1:E:332:TRP:HB2	1.99	0.45
1:E:329:ALA:HA	1:E:332:TRP:CD1	2.52	0.45
2:F:171:THR:O	2:F:243:VAL:N	2.35	0.45
1:G:18:CYS:O	1:G:20:ARG:NH1	2.50	0.45
1:G:123(A):SER:O	1:G:124:ASP:C	2.54	0.45
1:G:194:ARG:CZ	1:G:204:VAL:HG11	2.47	0.45
1:G:212:LYS:H	1:G:212:LYS:HG3	1.63	0.45
2:H:32:ASP:OD1	2:H:33:THR:N	2.49	0.45
2:H:64:ILE:H	2:H:71:ILE:H	1.65	0.45
2:J:6:ASN:HB2	2:J:84:TRP:HZ2	1.80	0.45
2:J:32:ASP:OD1	2:J:33:THR:N	2.50	0.45
2:J:126:PRO:HG2	2:J:144:ILE:HG22	1.99	0.45
1:K:58:LYS:O	1:K:65:SER:N	2.49	0.45
1:K:79:PRO:HA	1:K:82:LEU:CD1	2.47	0.45
1:K:82:LEU:HB3	1:K:84:TRP:CD2	2.51	0.45
1:K:125:ILE:HG23	1:K:144:ILE:HA	1.99	0.45
1:K:174:THR:HG22	1:K:228:ILE:O	2.17	0.45
1:K:291:THR:HG23	1:K:310:TRP:HB2	1.99	0.45
2:L:17:ARG:CZ	2:L:53:PHE:HA	2.47	0.45
2:L:156:PRO:HD2	2:L:157:PHE:CE1	2.52	0.45
2:P:129:VAL:N	2:P:133:ASN:OD1	2.50	0.45
2:P:197:ARG:HH22	1:Q:46:TYR:C	2.20	0.45
1:Q:58:LYS:HA	1:Q:58:LYS:NZ	2.31	0.45
1:Q:146:ASN:HD21	1:Q:152:ASN:HB3	1.81	0.45
1:A:13:ARG:NH1	1:A:43:LEU:O	2.49	0.45
1:A:69:LYS:HD3	1:A:69:LYS:HA	1.70	0.45
1:A:154:LEU:HA	1:A:157:PHE:CZ	2.52	0.45
2:B:134:GLU:O	2:B:137:TYR:HB3	2.17	0.45
2:B:173:THR:OG1	2:B:228:ILE:HG13	2.17	0.45
2:D:33:THR:HG23	2:D:77:ARG:HD3	1.99	0.45
2:D:45:LYS:HA	2:D:45:LYS:HD2	1.69	0.45
2:D:94:GLU:HG3	2:D:99:PHE:HD2	1.81	0.45
2:D:287:ASP:O	2:D:320:ARG:NH1	2.50	0.45
1:E:45:LYS:HD2	1:E:45:LYS:HA	1.66	0.45
1:E:94:GLU:HG3	1:E:99:PHE:HB2	1.99	0.45
1:E:118:ILE:HD13	1:E:120:ALA:N	2.32	0.45
1:E:281:VAL:HG23	1:E:284:ARG:HG2	1.98	0.45
2:F:72:LYS:NZ	2:F:72:LYS:HB2	2.32	0.45
2:F:184:LEU:HB2	1:G:184:LEU:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:11:ILE:HG22	3:G:401:NAD:O2N	2.16	0.45
1:G:42:HIS:O	1:G:46:TYR:N	2.39	0.45
1:I:60:ILE:CB	1:I:64:PHE:HA	2.46	0.45
1:I:251:THR:HG23	1:I:253:GLU:HB2	1.98	0.45
1:I:261:LYS:O	1:I:265:GLY:N	2.49	0.45
1:I:265:GLY:O	1:I:268:LYS:HE2	2.17	0.45
1:I:322:VAL:HG12	1:I:326:ASP:OD1	2.16	0.45
1:I:327:LEU:HA	1:I:330:ASN:OD1	2.16	0.45
2:J:66:VAL:H	2:J:69:LYS:C	2.20	0.45
2:J:94:GLU:HG3	2:J:99:PHE:HD2	1.82	0.45
2:J:131:GLY:N	2:J:134:GLU:OE2	2.49	0.45
1:K:4:ALA:O	1:K:92:VAL:HA	2.17	0.45
1:K:17:ARG:NH2	1:K:51:GLY:O	2.46	0.45
1:K:156:PRO:O	1:K:160:VAL:N	2.26	0.45
1:K:190:HIS:CE1	1:K:192:ASP:HB3	2.52	0.45
1:K:204:VAL:CG1	1:K:231:ARG:HB2	2.46	0.45
2:L:17:ARG:HG2	2:L:53:PHE:HE2	1.82	0.45
2:L:54:ASP:OD1	2:L:54:ASP:N	2.31	0.45
2:L:204:VAL:CG2	2:L:231:ARG:HB2	2.46	0.45
1:O:122(A):LYS:HD3	1:O:122(A):LYS:HA	1.74	0.45
1:O:154:LEU:HA	1:O:157:PHE:CE1	2.52	0.45
2:P:39:GLN:HA	2:P:42:HIS:ND1	2.30	0.45
2:R:312:ASP:OD2	2:R:315:TRP:HB3	2.17	0.45
1:A:169:LYS:HD2	1:C:300:MET:SD	2.56	0.45
1:A:193:LEU:HD11	1:C:277:PRO:HG3	1.99	0.45
2:B:2:LYS:HZ3	2:B:28:VAL:HG23	1.82	0.45
2:B:214:VAL:O	2:B:218:LEU:N	2.49	0.45
2:B:317:TYR:O	2:B:321:VAL:HG23	2.16	0.45
1:C:107:LYS:HA	1:C:110:GLN:NE2	2.32	0.45
1:C:256:ASN:HB2	1:C:260:ARG:NH2	2.32	0.45
1:C:260:ARG:HD3	1:C:273:VAL:HB	1.98	0.45
2:D:156:PRO:HD2	2:D:157:PHE:CE1	2.51	0.45
2:D:251:PHE:HE2	2:D:253:GLU:HB3	1.81	0.45
2:F:76:ASP:HB3	2:F:82:LEU:HD23	1.97	0.45
2:F:129:VAL:N	2:F:133:ASN:OD1	2.49	0.45
2:F:137:TYR:CE2	2:F:327:ILE:HG22	2.51	0.45
2:F:174:THR:HA	2:F:240:VAL:CB	2.47	0.45
2:F:184:LEU:HD12	2:F:200:CYS:SG	2.57	0.45
2:F:217:VAL:HG23	2:F:218:LEU:HG	1.99	0.45
1:G:177:SER:N	1:G:237:VAL:HG12	2.32	0.45
1:I:269:GLY:O	1:I:288:PHE:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:23:SER:HA	2:J:25:LEU:HD22	1.99	0.45
2:J:125:ILE:HD11	2:J:143:ILE:HG22	1.98	0.45
2:J:190:HIS:HB3	2:J:196:ALA:CA	2.47	0.45
1:K:130:VAL:HA	1:K:134:GLU:HB3	1.98	0.45
2:L:109:LEU:HD21	2:L:116:VAL:HG23	1.99	0.45
2:L:194:ARG:O	2:L:197:ARG:N	2.48	0.45
1:O:17:ARG:NH2	1:O:51:GLY:O	2.34	0.45
1:O:114:LYS:HB3	1:O:115:LYS:HZ2	1.82	0.45
2:P:89:ILE:O	2:P:113:ALA:HA	2.16	0.45
2:P:123:GLY:O	2:P:125:ILE:N	2.47	0.45
2:P:243:VAL:HA	2:P:305:VAL:O	2.17	0.45
2:R:118:ILE:HG22	2:R:145:SER:OG	2.17	0.45
1:A:3:VAL:HG22	1:A:91:ILE:HB	1.99	0.45
1:A:172:MET:O	1:A:228:ILE:N	2.46	0.45
1:A:181:ASP:HB3	1:G:362:GLU:CB	2.46	0.45
2:B:16:LEU:HD13	2:B:44:LEU:HD13	1.98	0.45
2:B:20:ARG:HE	2:B:319:GLN:HE22	1.65	0.45
2:B:94:GLU:HG2	2:B:96:THR:H	1.82	0.45
1:C:50:LEU:HD13	1:C:285:CYS:SG	2.57	0.45
1:C:91:ILE:HA	1:C:115:LYS:O	2.16	0.45
1:C:160:VAL:HA	1:C:163:GLU:HB2	1.99	0.45
1:E:158:VAL:HA	1:E:161:LEU:HB2	1.99	0.45
1:E:165:LEU:O	1:E:248:LYS:HB2	2.17	0.45
1:E:195:ARG:HD3	1:E:195:ARG:HA	1.79	0.45
2:F:215:ALA:HA	2:F:222:LYS:HG2	1.99	0.45
1:G:135:LYS:HZ1	1:G:135:LYS:H	1.65	0.45
2:H:114:LYS:O	2:H:142:THR:OG1	2.23	0.45
2:H:173:THR:HA	2:H:228:ILE:O	2.17	0.45
2:H:237:VAL:HG13	2:H:311:TYR:O	2.17	0.45
2:H:293:ASP:O	2:H:297:THR:HG23	2.16	0.45
2:J:139:HIS:HB3	2:J:333:GLN:CD	2.37	0.45
2:J:279:VAL:H	2:J:282:ASP:CG	2.18	0.45
1:K:58:LYS:HE2	1:K:60:ILE:HA	1.99	0.45
1:K:269:GLY:O	1:K:288:PHE:HA	2.16	0.45
2:L:149:CYS:SG	2:L:176:HIS:HE1	2.40	0.45
2:L:179:THR:H	2:L:182:GLN:NE2	2.15	0.45
1:O:319:GLN:HA	1:O:322:VAL:HB	1.98	0.45
2:P:31:ASN:OD1	2:P:74:VAL:HG23	2.17	0.45
1:Q:157:PHE:HB2	1:Q:161:LEU:HD21	1.98	0.45
2:R:6:ASN:OD1	2:R:7:GLY:N	2.50	0.45
2:R:109:LEU:HD11	2:R:143:ILE:HG23	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2:LYS:HB2	1:A:90:ASP:N	2.27	0.45
1:A:58:LYS:NZ	1:A:59:ILE:H	2.15	0.45
1:A:122:ALA:HB1	1:A:125:ILE:HD12	1.99	0.45
1:A:149:CYS:HB3	1:A:317:TYR:HB2	1.99	0.45
2:B:14:ASN:HD21	2:B:314:GLU:C	2.20	0.45
2:B:49:ILE:HG23	2:B:284:ARG:NH1	2.31	0.45
2:B:197:ARG:HH11	1:C:42:HIS:CE1	2.35	0.45
2:B:205:PRO:HA	2:B:230:LEU:HD23	1.99	0.45
2:B:257:ALA:HA	2:B:260:ARG:HB2	1.99	0.45
2:B:312:ASP:CG	2:B:316:GLY:H	2.20	0.45
1:C:18(A):TRP:CH2	1:C:26:ASP:HB2	2.52	0.45
1:C:211:ALA:HB1	1:C:226:ASN:HA	1.98	0.45
2:D:239:VAL:HG12	2:D:309:ALA:O	2.16	0.45
1:G:160:VAL:HG22	1:G:164:GLU:HG3	1.99	0.45
1:G:242:LEU:HG	1:G:244:VAL:HG22	1.99	0.45
1:G:272:ASP:N	1:G:290:SER:O	2.47	0.45
2:H:13:ARG:NE	2:H:43:LEU:HD22	2.32	0.45
2:H:118:ILE:HG22	2:H:145:SER:OG	2.16	0.45
2:H:159:LYS:O	2:H:163:GLN:N	2.34	0.45
1:I:193:LEU:HD12	1:K:277:PRO:HG2	1.99	0.45
1:K:119:THR:OG1	3:K:401:NAD:O4D	2.35	0.45
1:K:169:LYS:HZ3	1:K:245:ASN:HD21	1.63	0.45
1:K:171:THR:OG1	1:K:172:MET:N	2.50	0.45
1:K:174:THR:CG2	1:K:230:LEU:H	2.30	0.45
1:K:210:ALA:O	1:K:214:VAL:HG13	2.17	0.45
2:L:10:ARG:O	2:L:13:ARG:HD2	2.17	0.45
2:L:38:LYS:O	2:L:41:SER:OG	2.14	0.45
2:L:239:VAL:HG12	2:L:309:ALA:O	2.17	0.45
2:L:251:PHE:CE1	2:L:254:GLU:HB2	2.51	0.45
2:L:276:GLU:H	2:L:276:GLU:CD	2.15	0.45
1:O:118:ILE:HG12	1:O:122:ALA:HB2	1.98	0.44
1:O:190:HIS:C	1:O:192:ASP:H	2.19	0.44
1:O:328:VAL:O	1:O:333:PRO:HD2	2.17	0.44
2:P:92:VAL:HG11	2:P:108:HIS:CD2	2.52	0.44
2:P:204:VAL:O	2:P:230:LEU:HA	2.17	0.44
2:R:11:ILE:HG12	3:R:401:NAD:PN	2.56	0.44
2:R:204:VAL:O	2:R:206:THR:HG22	2.16	0.44
2:R:249:LYS:HD2	2:R:302:ASP:HB2	1.99	0.44
2:R:297:THR:HG22	2:R:307:VAL:HA	1.99	0.44
2:R:331:LYS:HE3	2:R:333:GLN:HE22	1.82	0.44
1:A:11:ILE:HB	3:A:401:NAD:N7N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:160:VAL:O	1:A:163:GLU:HG2	2.16	0.44
1:A:181:ASP:HA	1:G:359:LYS:CB	2.47	0.44
2:B:126:PRO:HG2	2:B:144:ILE:HG22	1.98	0.44
2:B:139:HIS:HB3	2:B:333:GLN:CD	2.37	0.44
2:B:175:THR:N	2:B:239:VAL:O	2.36	0.44
1:C:281:VAL:HA	1:C:284:ARG:HG3	1.99	0.44
2:D:15:PHE:CE2	2:D:321:VAL:HG12	2.52	0.44
2:D:78:ASN:OD1	2:D:80:VAL:HG23	2.17	0.44
2:D:84:TRP:CE3	2:D:84:TRP:HA	2.53	0.44
1:E:126:PRO:O	1:E:145:SER:OG	2.34	0.44
1:E:261:LYS:HA	1:E:261:LYS:HD3	1.55	0.44
2:F:157:PHE:HB2	2:F:259:PHE:CE1	2.51	0.44
2:F:173:THR:HG1	2:H:306:LYS:NZ	2.15	0.44
2:F:204:VAL:O	2:F:230:LEU:HA	2.17	0.44
2:F:208:THR:HG23	2:F:210:ALA:HB3	2.00	0.44
1:G:3:VAL:HA	1:G:91:ILE:HG12	1.99	0.44
1:G:106:GLY:O	1:G:110:GLN:N	2.33	0.44
1:G:121:PRO:O	1:G:122(A):LYS:N	2.41	0.44
1:G:172:MET:O	1:G:227:GLY:HA3	2.17	0.44
1:G:236:ASN:OD1	1:G:238:SER:OG	2.30	0.44
2:H:99:PHE:CE1	2:H:104:GLY:HA3	2.52	0.44
2:H:183:ARG:HD2	2:H:187:ALA:HB3	1.99	0.44
2:J:55:ALA:HB1	2:J:67:ASP:OD1	2.17	0.44
2:J:312:ASP:CG	2:J:316:GLY:H	2.21	0.44
1:K:7:GLY:H	1:K:31:ASN:H	1.64	0.44
1:K:318:SER:O	1:K:320:ARG:N	2.50	0.44
1:K:323:ASP:OD1	1:K:323:ASP:N	2.50	0.44
2:L:124:ASP:OD1	2:L:124:ASP:N	2.49	0.44
2:L:184:LEU:HG	2:L:185:LEU:HD22	1.98	0.44
1:O:82:LEU:HD13	1:O:84:TRP:CZ2	2.52	0.44
1:O:124:ASP:H	1:C:142:ASN:HD21	1.64	0.44
1:O:142:ASN:OD1	1:O:142:ASN:N	2.50	0.44
1:O:174:THR:OG1	1:O:175:THR:N	2.50	0.44
1:O:184:LEU:HD23	1:O:185:LEU:H	1.82	0.44
1:O:230:LEU:HD13	1:O:230:LEU:HA	1.78	0.44
2:P:29:VAL:HA	2:P:72:LYS:O	2.17	0.44
2:P:66:VAL:C	2:P:68:GLY:N	2.70	0.44
2:P:323:ASP:O	2:P:327:ILE:HG13	2.18	0.44
1:Q:89:ILE:O	1:Q:113:ALA:HA	2.17	0.44
1:Q:292:ILE:HG13	1:Q:309:ALA:HA	1.98	0.44
2:R:11:ILE:HG12	3:R:401:NAD:O2N	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:118:ILE:O	2:R:146:ASN:N	2.39	0.44
1:A:186:ASP:CG	1:A:197:ARG:HE	2.20	0.44
1:A:264:ALA:HA	1:A:268:LYS:NZ	2.32	0.44
2:B:27:VAL:O	2:B:69:LYS:NZ	2.32	0.44
2:B:218:LEU:HA	2:B:218:LEU:HD23	1.72	0.44
2:D:100:VAL:O	2:D:122(A):LYS:N	2.35	0.44
2:D:265:ASN:OD1	2:D:266:GLU:N	2.50	0.44
1:E:49:ILE:HG22	1:E:50:LEU:HD22	1.99	0.44
1:E:92:VAL:HG12	1:E:93:ILE:N	2.32	0.44
1:E:179:THR:OG1	1:E:180:GLY:N	2.46	0.44
2:F:185:LEU:HD11	1:G:178:TYR:CD1	2.52	0.44
2:F:202:ASN:HD22	2:H:280:SER:N	2.14	0.44
1:G:115:LYS:HE2	1:G:115:LYS:HB2	1.75	0.44
1:G:300:MET:HB3	1:G:304:MET:HB3	1.99	0.44
2:H:313:ASN:OD1	2:H:313:ASN:N	2.49	0.44
1:I:169:LYS:HA	1:I:169:LYS:HD3	1.64	0.44
2:J:169:LYS:HD3	2:L:301:GLY:HA3	1.98	0.44
1:K:291:THR:OG1	1:K:310:TRP:HB2	2.17	0.44
2:L:20:ARG:HH22	2:L:323:ASP:CG	2.20	0.44
3:L:401:NAD:H2N	3:L:401:NAD:H52N	1.99	0.44
1:O:6:ASN:ND2	1:O:96:THR:HG23	2.32	0.44
1:O:346:GLU:H	1:C:191:ARG:HD2	1.83	0.44
2:P:47:ASP:HB3	2:P:51:GLY:O	2.18	0.44
2:P:78:ASN:OD1	2:P:80:VAL:HG13	2.17	0.44
2:P:148:SER:HA	3:P:401:NAD:C5N	2.38	0.44
2:P:300:MET:HB3	2:R:169:LYS:HD2	2.00	0.44
1:Q:332:TRP:CG	1:Q:333:PRO:HD2	2.52	0.44
2:R:165:PHE:CD2	2:R:248:LYS:HD3	2.52	0.44
2:R:197:ARG:NH2	2:R:199:ALA:H	2.12	0.44
1:A:171:THR:O	1:A:243:VAL:N	2.38	0.44
1:A:192:ASP:OD1	1:A:192:ASP:N	2.50	0.44
2:B:76:ASP:OD1	2:B:78:ASN:N	2.50	0.44
1:C:129:VAL:HA	1:C:324:LEU:HD21	1.98	0.44
1:C:361:TYR:O	1:C:362:GLU:CB	2.65	0.44
2:D:86:ASP:HB2	2:D:87:MET:SD	2.57	0.44
2:D:208:THR:H	2:D:229:ALA:HB2	1.82	0.44
1:E:176:HIS:O	1:E:231:ARG:HA	2.18	0.44
1:E:280:SER:HG	1:G:203:ILE:H	1.65	0.44
2:F:4:ALA:HB2	2:F:29:VAL:HG13	1.98	0.44
2:F:39:GLN:O	2:F:43:LEU:HG	2.16	0.44
2:F:172:MET:O	2:F:173:THR:OG1	2.34	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:183:ARG:HH22	2:F:191:ARG:NH2	2.15	0.44
2:F:278:LEU:O	2:H:194:ARG:NH2	2.40	0.44
1:G:10:ARG:NH2	1:G:13:ARG:HE	2.16	0.44
1:G:82:LEU:CB	1:G:84:TRP:NE1	2.77	0.44
1:G:224:LYS:HB3	1:G:224:LYS:HE3	1.53	0.44
1:I:191:ARG:HA	2:L:39:GLN:NE2	2.32	0.44
1:I:193:LEU:O	1:I:197:ARG:HG2	2.17	0.44
1:I:194:ARG:NH2	1:K:277:PRO:HA	2.31	0.44
1:I:207:SER:HA	1:I:228:ILE:HB	1.98	0.44
2:J:14:ASN:HD21	2:J:315:TRP:CA	2.28	0.44
2:J:257:ALA:HA	2:J:260:ARG:HB2	1.98	0.44
1:K:13:ARG:HD3	1:K:43:LEU:O	2.17	0.44
1:K:281:VAL:O	1:K:284:ARG:N	2.48	0.44
1:K:293:ASP:OD1	1:K:295:SER:OG	2.22	0.44
1:K:317:TYR:HD1	1:K:320:ARG:NH2	2.14	0.44
2:L:158:VAL:O	2:L:162:ASP:N	2.28	0.44
2:L:161:LEU:HD12	2:L:165:PHE:CD1	2.52	0.44
2:L:208:THR:H	2:L:229:ALA:HB2	1.82	0.44
1:O:239:VAL:HB	1:O:310:TRP:CG	2.53	0.44
2:P:45:LYS:HA	2:P:45:LYS:HD2	1.71	0.44
2:P:133:ASN:O	2:P:137:TYR:N	2.51	0.44
2:P:202:ASN:HD22	2:R:280:SER:N	2.15	0.44
2:P:243:VAL:HG22	2:P:306:LYS:HA	2.00	0.44
2:P:274:CYS:SG	2:P:276:GLU:HG2	2.57	0.44
1:Q:8:PHE:HD1	1:Q:8:PHE:HA	1.61	0.44
1:Q:135:LYS:HZ1	1:Q:136:ASP:H	1.65	0.44
1:Q:183:ARG:CZ	1:Q:187:ALA:HB3	2.47	0.44
1:A:133:ASN:HA	1:A:136:ASP:OD2	2.16	0.44
2:B:312:ASP:CG	2:B:315:TRP:HB3	2.38	0.44
2:D:247:SER:OG	2:D:248:LYS:N	2.51	0.44
1:E:21:LYS:O	1:E:22:ASP:C	2.55	0.44
1:E:236:ASN:H	1:E:284:ARG:NH2	2.09	0.44
1:E:267:LEU:O	1:E:271:LEU:N	2.39	0.44
1:E:282:ASP:OD1	2:F:52:THR:N	2.51	0.44
1:E:318:SER:O	1:E:321:VAL:HG22	2.18	0.44
1:E:356:GLU:C	1:K:183:ARG:HH22	2.20	0.44
1:G:105:ALA:HA	1:G:108:HIS:HD2	1.82	0.44
1:G:256:ASN:HB2	1:G:260:ARG:HH21	1.83	0.44
2:H:13:ARG:HE	2:H:43:LEU:HD22	1.81	0.44
2:H:32:ASP:HA	3:H:401:NAD:H2A	1.98	0.44
2:H:204:VAL:O	2:H:206:THR:HG22	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:238:SER:O	1:I:311:TYR:N	2.50	0.44
2:J:129:VAL:HG21	2:J:152:ASN:HA	2.00	0.44
2:J:268:LYS:HE2	2:J:268:LYS:HB2	1.81	0.44
1:K:84:TRP:O	1:K:89:ILE:N	2.48	0.44
1:K:101:ASP:CG	1:K:104:GLY:H	2.20	0.44
1:K:157:PHE:HD1	1:K:271:LEU:HD12	1.82	0.44
1:K:178:TYR:CE1	1:K:235:PRO:HA	2.53	0.44
2:L:45:LYS:HB2	2:L:57:VAL:HG11	1.99	0.44
1:O:153:CYS:O	1:O:290:SER:OG	2.35	0.44
1:O:210:ALA:O	1:O:214:VAL:HG13	2.17	0.44
2:P:109:LEU:HD22	2:P:114:LYS:C	2.37	0.44
1:Q:135:LYS:NZ	1:Q:136:ASP:H	2.15	0.44
1:Q:156:PRO:HG2	1:Q:290:SER:OG	2.18	0.44
1:Q:165:LEU:HB3	1:Q:246:ILE:HG12	1.99	0.44
1:Q:195:ARG:HH11	1:Q:195:ARG:H	1.64	0.44
1:Q:205:PRO:HA	1:Q:229:ALA:O	2.17	0.44
1:Q:211:ALA:HB3	1:Q:212:LYS:NZ	2.32	0.44
1:A:28:VAL:C	1:A:71:ILE:HG23	2.38	0.44
1:A:125:ILE:H	1:A:125:ILE:HG13	1.42	0.44
1:A:217:VAL:HG23	1:A:218:LEU:HD23	1.99	0.44
1:A:327:LEU:HA	1:A:330:ASN:ND2	2.32	0.44
2:B:6:ASN:HB2	2:B:84:TRP:HZ2	1.83	0.44
2:B:101:ASP:CG	2:B:104:GLY:H	2.21	0.44
1:C:119:THR:HG23	3:C:401:NAD:H1D	1.99	0.44
2:D:91:LEU:HB2	2:D:115:LYS:HB2	1.99	0.44
2:D:255:VAL:HG23	2:D:256:ASN:ND2	2.31	0.44
1:E:41:THR:HG22	1:E:45:LYS:HG2	1.99	0.44
1:E:125:ILE:H	1:E:125:ILE:HD12	1.82	0.44
1:E:132:VAL:HG11	1:E:155:ALA:HB1	1.98	0.44
1:E:236:ASN:HB3	1:E:284:ARG:CZ	2.48	0.44
2:F:246:VAL:HG22	2:F:303:ASP:HA	1.98	0.44
2:F:272:SER:O	2:F:291:THR:HA	2.18	0.44
1:G:39:SER:O	1:G:43:LEU:HG	2.18	0.44
1:G:193:LEU:HD12	1:G:193:LEU:H	1.82	0.44
1:G:253:GLU:O	1:G:257:ASN:ND2	2.50	0.44
2:H:312:ASP:OD2	2:H:315:TRP:HB3	2.17	0.44
1:I:63:THR:OG1	1:I:72:LYS:HD3	2.17	0.44
1:I:139:HIS:HD2	1:I:333:PRO:HD3	1.80	0.44
1:I:157:PHE:O	1:I:161:LEU:HG	2.18	0.44
2:J:13:ARG:HG2	2:J:43:LEU:C	2.38	0.44
2:J:102:ARG:O	2:J:106:GLY:N	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:134:GLU:O	2:J:137:TYR:HB3	2.17	0.44
2:J:237:VAL:HG13	2:J:311:TYR:O	2.17	0.44
1:K:6:ASN:HB3	1:K:94:GLU:HA	1.98	0.44
2:L:86:ASP:HB2	2:L:87:MET:SD	2.57	0.44
2:L:94:GLU:HG3	2:L:99:PHE:HD2	1.81	0.44
2:L:276:GLU:OE1	2:L:276:GLU:N	2.45	0.44
1:O:114:LYS:O	1:O:115:LYS:NZ	2.41	0.44
1:O:181:ASP:OD2	1:C:362:GLU:CB	2.65	0.44
1:O:239:VAL:HB	1:O:310:TRP:CD2	2.53	0.44
2:P:39:GLN:NE2	1:Q:190:HIS:O	2.48	0.44
2:P:157:PHE:HB2	2:P:259:PHE:CE1	2.52	0.44
2:P:173:THR:HG1	2:R:306:LYS:NZ	2.14	0.44
2:P:184:LEU:HD12	2:P:200:CYS:SG	2.57	0.44
2:P:278:LEU:HD23	2:P:282:ASP:HB3	1.99	0.44
1:Q:190:HIS:CE1	1:Q:195:ARG:HB2	2.53	0.44
2:R:4:ALA:HA	2:R:29:VAL:HG13	1.99	0.44
1:A:214:VAL:HG23	1:A:215:SER:H	1.83	0.44
1:A:280:SER:HA	1:A:310:TRP:CZ3	2.52	0.44
2:B:55:ALA:HB1	2:B:67:ASP:OD1	2.18	0.44
2:B:278:LEU:H	2:D:194:ARG:NH2	2.16	0.44
2:B:291:THR:O	2:B:310:TRP:N	2.31	0.44
1:C:99:PHE:C	1:C:101:ASP:H	2.21	0.44
1:C:116:VAL:HG12	1:C:117:ILE:N	2.33	0.44
1:C:126:PRO:HG2	1:C:128:TYR:OH	2.17	0.44
1:C:174:THR:HA	1:C:240:VAL:HA	1.99	0.44
1:C:347:ASP:O	1:C:351:ASP:N	2.48	0.44
2:D:17:ARG:HG2	2:D:53:PHE:CE2	2.52	0.44
2:D:90:ASP:OD1	2:D:90:ASP:N	2.51	0.44
2:D:293:ASP:O	2:D:297:THR:HG23	2.17	0.44
1:E:160:VAL:HA	1:E:163:GLU:OE1	2.17	0.44
2:F:228:ILE:N	2:H:306:LYS:HZ2	2.15	0.44
2:F:267:LEU:HA	2:F:270:ILE:HB	1.99	0.44
1:G:105:ALA:HA	1:G:108:HIS:HB2	2.00	0.44
2:H:41:SER:HG	2:H:42:HIS:N	2.15	0.44
2:H:193:LEU:H	2:H:193:LEU:HD12	1.83	0.44
2:H:331:LYS:HE3	2:H:333:GLN:HE22	1.82	0.44
1:I:203:ILE:HG13	1:I:231:ARG:C	2.38	0.44
1:I:218:LEU:HA	1:I:218:LEU:HD12	1.70	0.44
2:J:85:GLY:HA3	2:J:112:GLY:HA3	1.98	0.44
2:J:194:ARG:NH1	2:L:279:VAL:HG13	2.33	0.44
2:J:227:GLY:HA2	2:L:298:MET:SD	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:20:ARG:NH2	2:L:323:ASP:OD1	2.51	0.44
2:L:237:VAL:HA	2:L:313:ASN:OD1	2.17	0.44
2:L:267:LEU:HA	2:L:270:ILE:HB	1.99	0.44
1:O:82:LEU:HD12	1:O:108:HIS:HE1	1.81	0.44
2:P:271:LEU:HD13	2:P:289:SER:HG	1.82	0.44
1:Q:3:VAL:HG11	1:Q:27:VAL:HG12	1.99	0.44
1:Q:56:ASP:OD1	1:Q:58:LYS:NZ	2.47	0.44
1:Q:104:GLY:HA2	1:Q:107:LYS:HG3	2.00	0.44
1:Q:139:HIS:HE1	1:Q:333:PRO:HA	1.81	0.44
1:Q:139(A):ASP:CG	1:Q:333:PRO:HG3	2.38	0.44
1:Q:346:GLU:O	1:Q:350:LYS:N	2.50	0.44
2:R:13:ARG:NE	2:R:43:LEU:HD22	2.33	0.44
2:R:21:LYS:H	2:R:21:LYS:NZ	2.15	0.44
1:A:154:LEU:HD11	1:A:210:ALA:HB1	1.99	0.44
2:B:1:LEU:HD23	2:B:25:LEU:HD12	1.98	0.44
2:B:116:VAL:O	2:B:144:ILE:HG12	2.18	0.44
2:B:305:VAL:HG12	2:B:307:VAL:HG12	1.99	0.44
1:C:94:GLU:CB	1:C:118:ILE:HG13	2.48	0.44
1:C:245:ASN:OD1	1:C:245:ASN:N	2.50	0.44
2:D:1:LEU:HG	2:D:3:VAL:HG23	1.98	0.44
2:D:165:PHE:HA	2:D:248:LYS:NZ	2.32	0.44
1:E:5:ILE:HG12	1:E:93:ILE:HG13	2.00	0.44
1:E:174:THR:H	1:E:229:ALA:HA	1.83	0.44
2:F:2:LYS:NZ	2:F:26:ASP:OD2	2.44	0.44
2:F:11:ILE:HG12	3:F:401:NAD:O2N	2.18	0.44
2:F:14:ASN:ND2	2:F:315:TRP:HA	2.30	0.44
2:F:99:PHE:HD1	2:F:104:GLY:HA3	1.83	0.44
1:G:39:SER:O	1:G:43:LEU:N	2.29	0.44
1:G:199:ALA:CB	1:G:231:ARG:HH11	1.96	0.44
1:I:1:LEU:HD22	1:I:329:ALA:HA	2.00	0.44
1:I:214:VAL:HG23	1:I:215:SER:H	1.83	0.44
2:J:11:ILE:HA	2:J:14:ASN:HB3	2.00	0.44
2:J:214:VAL:O	2:J:218:LEU:N	2.49	0.44
1:K:28:VAL:O	1:K:72:LYS:N	2.51	0.44
2:L:15:PHE:CE2	2:L:321:VAL:HG12	2.53	0.44
2:L:305:VAL:HG12	2:L:307:VAL:HG12	1.99	0.44
1:O:18(B):HIS:CD2	1:O:53:PHE:HZ	2.36	0.44
1:O:114:LYS:HZ2	1:O:114:LYS:N	2.15	0.44
1:O:182:GLN:HG3	1:O:195:ARG:HD3	2.00	0.44
1:O:236:ASN:ND2	1:O:314:GLU:OE1	2.51	0.44
1:O:241:ASP:HA	1:O:307:VAL:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:244:VAL:HG23	1:O:305:VAL:HG23	1.99	0.44
1:O:256:ASN:CA	1:O:259:PHE:HB2	2.41	0.44
2:P:137:TYR:OH	2:P:328:VAL:HA	2.18	0.44
2:P:217:VAL:HG23	2:P:218:LEU:HG	2.00	0.44
1:Q:11:ILE:N	3:Q:401:NAD:O1N	2.51	0.44
1:Q:15:PHE:CD2	1:Q:322:VAL:HG23	2.52	0.44
2:R:181:ASP:HB3	2:R:182:GLN:NE2	2.27	0.44
1:A:0:LYS:HG3	1:A:24:PRO:O	2.18	0.44
1:A:129:VAL:N	1:A:133:ASN:OD1	2.32	0.44
1:A:208:THR:HG23	1:A:210:ALA:H	1.82	0.44
1:A:273:VAL:HA	1:A:292:ILE:H	1.81	0.44
1:A:332:TRP:CE3	1:A:333:PRO:HD2	2.53	0.44
2:B:29:VAL:O	2:B:30:ILE:HD13	2.18	0.44
2:B:116:VAL:HB	2:B:143:ILE:HG12	1.99	0.44
2:B:118:ILE:HD13	2:B:118:ILE:HA	1.78	0.44
2:B:119:THR:OG1	2:B:120:ALA:N	2.51	0.44
2:B:193:LEU:HD22	2:D:277:PRO:HG2	1.98	0.44
2:D:38:LYS:HZ2	2:D:38:LYS:N	2.15	0.44
2:D:305:VAL:HG12	2:D:307:VAL:HG12	2.00	0.44
1:E:84:TRP:HB2	1:E:111:ALA:O	2.18	0.44
1:E:183:ARG:CZ	1:E:190:HIS:HB2	2.48	0.44
1:E:218:LEU:HA	1:E:218:LEU:HD22	1.68	0.44
2:F:323:ASP:O	2:F:327:ILE:HG13	2.17	0.44
1:G:14:ASN:HA	1:G:17:ARG:HB2	1.99	0.44
1:G:128:TYR:HD1	1:G:128:TYR:HA	1.50	0.44
1:G:215:SER:OG	1:G:222:LYS:HD2	2.17	0.44
1:G:330:ASN:ND2	1:G:330:ASN:H	2.16	0.44
1:I:1:LEU:O	1:I:3:VAL:HG23	2.18	0.44
1:I:63:THR:HG23	1:I:72:LYS:HA	2.00	0.44
1:I:69:LYS:O	1:I:71:ILE:HG13	2.18	0.44
1:I:91:ILE:HA	1:I:115:LYS:O	2.17	0.44
2:J:14:ASN:HD22	2:J:314:GLU:HB3	1.83	0.44
2:L:160:VAL:HA	2:L:163:GLN:HB2	1.98	0.44
2:L:176:HIS:HB3	2:L:231:ARG:HG2	2.00	0.44
1:O:79:PRO:HG2	1:O:107:LYS:HD2	2.00	0.44
1:O:89:ILE:HG22	1:O:92:VAL:HG22	1.99	0.44
1:O:172:MET:HB2	1:O:242:LEU:HD12	2.00	0.44
1:O:267:LEU:HB3	1:O:271:LEU:HG	2.00	0.44
2:P:1:LEU:O	2:P:3:VAL:N	2.50	0.44
2:P:154:LEU:O	2:P:158:VAL:HG22	2.17	0.44
2:P:208:THR:HG23	2:P:210:ALA:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:220:GLN:H	1:Q:220:GLN:CD	2.12	0.44
2:R:18:CYS:HB3	2:R:322:VAL:HG21	2.00	0.44
2:R:179:THR:N	2:R:182:GLN:HE22	2.13	0.44
1:A:13:ARG:NE	1:A:43:LEU:HB3	2.32	0.44
2:B:40:ALA:HA	2:B:43:LEU:HB2	2.00	0.44
2:B:44:LEU:HD23	2:B:57:VAL:CB	2.48	0.44
2:B:84:TRP:CD1	2:B:111:ALA:HB3	2.53	0.44
1:C:279:VAL:O	1:C:282:ASP:N	2.51	0.44
1:E:59:ILE:O	1:E:59:ILE:CG1	2.65	0.44
1:E:164:GLU:OE1	1:E:165:LEU:HG	2.17	0.44
1:E:204:VAL:HG21	1:E:231:ARG:HB2	2.00	0.44
2:F:36:GLY:H	2:F:39:GLN:CD	2.21	0.44
2:F:78:ASN:OD1	2:F:80:VAL:HG13	2.18	0.44
2:F:183:ARG:NH2	2:F:190:HIS:HA	2.33	0.44
2:F:316:GLY:O	2:F:320:ARG:HG2	2.18	0.44
2:H:160:VAL:HA	2:H:163:GLN:OE1	2.18	0.44
2:H:221:LEU:H	2:H:221:LEU:HD12	1.83	0.44
1:I:176:HIS:HA	1:I:238:SER:HB2	2.00	0.44
2:J:203:ILE:HG12	2:J:204:VAL:H	1.82	0.44
1:K:37:VAL:O	1:K:41:THR:N	2.28	0.44
1:K:154:LEU:HA	1:K:157:PHE:CZ	2.53	0.44
2:L:109:LEU:HD11	2:L:143:ILE:HG12	2.00	0.44
2:L:148:SER:HG	2:L:151:THR:H	1.65	0.44
2:L:232:VAL:O	2:L:234:THR:N	2.49	0.44
2:P:99:PHE:HD1	2:P:104:GLY:HA3	1.83	0.43
2:P:103:ASP:OD1	2:P:103:ASP:N	2.37	0.43
2:P:151:THR:HG21	2:P:213:ALA:HB3	2.00	0.43
2:P:237:VAL:HG13	2:P:311:TYR:O	2.18	0.43
1:Q:1:LEU:O	1:Q:3:VAL:HG23	2.18	0.43
2:R:119:THR:O	2:R:317:TYR:OH	2.36	0.43
1:A:114:LYS:HB3	1:A:115:LYS:HD2	1.99	0.43
1:A:130:VAL:HG11	1:A:320:ARG:HD3	1.99	0.43
2:B:128:TYR:HD2	2:B:144:ILE:HB	1.83	0.43
2:B:297:THR:HA	2:B:307:VAL:HA	2.00	0.43
1:C:9:GLY:O	1:C:13:ARG:NH1	2.51	0.43
1:C:17:ARG:HG2	1:C:53:PHE:CE2	2.53	0.43
1:C:82:LEU:HB2	1:C:111:ALA:HB1	1.99	0.43
1:C:102:GLY:N	1:C:103:PRO:HD2	2.33	0.43
1:C:298:MET:O	1:C:305:VAL:HG23	2.18	0.43
2:D:171:THR:N	2:D:243:VAL:O	2.40	0.43
2:D:234:THR:OG1	2:D:236:ASN:N	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:267:LEU:HA	2:D:270:ILE:HB	2.00	0.43
2:D:313:ASN:O	3:D:401:NAD:N7N	2.51	0.43
1:E:52:THR:O	1:E:54:LYS:NZ	2.39	0.43
1:E:197:ARG:HD2	1:E:197:ARG:HA	1.90	0.43
1:E:211:ALA:HB3	1:E:212:LYS:NZ	2.33	0.43
2:F:33:THR:OG1	2:F:77:ARG:NH1	2.51	0.43
2:F:190:HIS:HE1	2:F:192:ASP:HB3	1.83	0.43
2:F:305:VAL:HG12	2:F:307:VAL:HG12	1.99	0.43
1:G:77:ARG:HD2	3:G:401:NAD:N1A	2.33	0.43
1:G:324:LEU:HA	1:G:327:LEU:HD12	2.00	0.43
2:H:165:PHE:CD2	2:H:248:LYS:HD3	2.53	0.43
1:I:148:SER:OG	1:I:151:THR:HG23	2.17	0.43
2:J:18:CYS:CB	2:J:322:VAL:HG21	2.47	0.43
2:J:38:LYS:H	2:J:38:LYS:HD3	1.82	0.43
2:J:246:VAL:N	2:J:303:ASP:O	2.35	0.43
1:K:82:LEU:HB3	1:K:84:TRP:CE3	2.53	0.43
1:K:167:ILE:HA	1:K:247:GLU:H	1.83	0.43
1:K:259:PHE:O	1:K:263:ALA:N	2.30	0.43
2:L:58:LYS:O	2:L:65:SER:N	2.51	0.43
1:O:18(A):TRP:CA	1:O:20:ARG:HB3	2.47	0.43
1:O:28:VAL:HA	1:O:71:ILE:HG12	1.99	0.43
1:O:203:ILE:O	1:O:205:PRO:HD3	2.19	0.43
2:P:152:ASN:ND2	2:P:317:TYR:HA	2.33	0.43
2:P:312:ASP:OD2	2:P:315:TRP:HB3	2.18	0.43
1:Q:3:VAL:HB	1:Q:27:VAL:HA	1.99	0.43
1:Q:17:ARG:NH2	1:Q:53:PHE:HB2	2.33	0.43
1:Q:194:ARG:HH21	1:Q:205:PRO:HD2	1.81	0.43
1:Q:236:ASN:ND2	1:Q:313:ASN:OD1	2.51	0.43
2:R:160:VAL:HA	2:R:163:GLN:OE1	2.18	0.43
1:A:165:LEU:HG	1:A:248:LYS:NZ	2.29	0.43
2:B:23:SER:HA	2:B:25:LEU:HD22	1.99	0.43
2:B:190:HIS:HB3	2:B:196:ALA:CA	2.48	0.43
2:B:192:ASP:OD2	2:B:194:ARG:HB2	2.18	0.43
2:B:227:GLY:HA2	2:D:298:MET:SD	2.58	0.43
1:C:84:TRP:O	1:C:88:GLY:N	2.51	0.43
2:D:273:VAL:HG23	2:D:292:ILE:O	2.18	0.43
1:E:0:LYS:HB3	1:E:0:LYS:HE3	1.69	0.43
1:E:92:VAL:O	1:E:116:VAL:HG13	2.18	0.43
1:E:139:HIS:HD2	1:E:139(A):ASP:H	1.66	0.43
1:E:156:PRO:O	1:E:160:VAL:HG23	2.18	0.43
1:E:272:ASP:HB2	1:E:288:PHE:CD2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:133:ASN:ND2	1:G:217:VAL:HG13	2.33	0.43
1:G:263:ALA:O	1:G:268:LYS:HA	2.18	0.43
2:H:213:ALA:HA	2:H:216:LEU:HD13	2.00	0.43
2:H:249:LYS:HD2	2:H:302:ASP:HB2	1.99	0.43
1:I:271:LEU:HA	1:I:289:SER:CB	2.49	0.43
1:I:299:VAL:HA	1:I:305:VAL:HA	2.01	0.43
2:J:171:THR:O	2:J:242:LEU:HD12	2.18	0.43
1:K:6:ASN:HD22	1:K:95:GLY:N	2.14	0.43
1:K:10:ARG:HB3	1:K:314:GLU:OE2	2.17	0.43
1:K:91:ILE:HD11	1:K:115:LYS:HE2	1.98	0.43
1:K:167:ILE:HB	1:K:224:LYS:HZ1	1.84	0.43
1:K:169:LYS:N	1:K:245:ASN:OD1	2.48	0.43
1:K:281:VAL:HA	1:K:284:ARG:HG3	2.00	0.43
2:L:40:ALA:HA	2:L:43:LEU:HB2	1.99	0.43
2:L:117:LEU:HG	2:L:145:SER:HA	1.99	0.43
2:L:193:LEU:HD12	2:L:193:LEU:H	1.82	0.43
2:L:250:THR:N	2:L:302:ASP:HB3	2.18	0.43
1:O:190:HIS:CE1	1:O:196:ALA:N	2.86	0.43
1:O:191:ARG:HB3	1:O:191:ARG:HE	1.48	0.43
1:O:300:MET:CG	1:O:304:MET:HB2	2.49	0.43
3:O:401:NAD:O3D	1:C:362:GLU:HA	2.18	0.43
2:P:159:LYS:HG3	2:P:218:LEU:HD22	2.00	0.43
1:Q:174:THR:HB	1:Q:240:VAL:CB	2.48	0.43
1:Q:221:LEU:HD13	1:Q:221:LEU:HA	1.85	0.43
2:R:15:PHE:CE2	2:R:321:VAL:HG12	2.53	0.43
2:R:47:ASP:N	2:R:51:GLY:O	2.51	0.43
2:R:102:ARG:NH2	2:R:126:PRO:HD3	2.30	0.43
2:R:104:GLY:HA2	2:R:107:LYS:HE2	2.00	0.43
1:A:3:VAL:HG21	1:A:25:LEU:HB3	2.00	0.43
1:A:117:ILE:HD13	1:A:321:VAL:HG13	1.98	0.43
1:A:135:LYS:HE2	1:A:135:LYS:HB2	1.65	0.43
2:B:1:LEU:O	2:B:3:VAL:HG23	2.18	0.43
2:B:324:LEU:HD12	2:B:327:ILE:HB	2.00	0.43
1:C:239:VAL:CG2	1:C:308:VAL:HG23	2.49	0.43
1:C:341:SER:C	1:C:343:ASP:H	2.21	0.43
2:D:134:GLU:O	2:D:137:TYR:HB3	2.19	0.43
1:E:245:ASN:HA	1:E:304:MET:HA	1.99	0.43
2:F:1:LEU:O	2:F:26:ASP:N	2.51	0.43
2:F:78:ASN:ND2	2:F:80:VAL:HG22	2.34	0.43
2:F:191:ARG:H	2:F:191:ARG:CZ	2.32	0.43
1:G:3:VAL:HG22	1:G:91:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:244:VAL:HB	1:G:246:ILE:HD11	2.00	0.43
2:H:18:CYS:HB3	2:H:322:VAL:HG21	2.00	0.43
2:H:152:ASN:OD1	2:H:320:ARG:HG3	2.17	0.43
2:H:289:SER:O	2:H:311:TYR:HA	2.18	0.43
1:I:186:ASP:HA	1:I:196:ALA:O	2.18	0.43
1:I:218:LEU:HG	1:I:220:GLN:NE2	2.33	0.43
1:I:290:SER:HG	1:I:291:THR:N	2.16	0.43
2:J:64:ILE:O	2:J:71:ILE:N	2.51	0.43
2:J:183:ARG:HH22	2:J:191:ARG:HH12	1.65	0.43
2:J:267:LEU:HB3	2:J:271:LEU:HB2	2.00	0.43
1:K:117:ILE:HA	1:K:144:ILE:O	2.18	0.43
2:L:91:LEU:HB2	2:L:115:LYS:HB2	2.01	0.43
2:L:285:CYS:O	2:L:315:TRP:NE1	2.50	0.43
1:O:139(A):ASP:OD1	1:O:139(A):ASP:N	2.51	0.43
1:O:175:THR:OG1	1:O:239:VAL:HG13	2.18	0.43
1:O:190:HIS:O	1:O:191:ARG:HB3	2.18	0.43
2:P:316:GLY:O	2:P:320:ARG:HG2	2.18	0.43
1:Q:82:LEU:HD12	1:Q:108:HIS:ND1	2.34	0.43
1:Q:138:GLY:HA3	1:Q:140:VAL:HB	2.00	0.43
1:Q:249:GLY:HA3	1:Q:302:GLY:CA	2.48	0.43
1:Q:255:VAL:HA	1:Q:258:ALA:HB3	2.01	0.43
1:Q:324:LEU:HD12	1:Q:325:ALA:N	2.33	0.43
2:R:122:GLY:CA	2:R:125:ILE:HG12	2.49	0.43
2:R:122:GLY:C	2:R:125:ILE:HG12	2.38	0.43
2:R:173:THR:HA	2:R:228:ILE:O	2.18	0.43
1:A:137:TYR:CZ	1:A:139:HIS:HA	2.53	0.43
1:A:254:ASP:OD1	1:A:255:VAL:HG23	2.19	0.43
1:A:330:ASN:OD1	1:A:330:ASN:N	2.51	0.43
2:B:129:VAL:HG21	2:B:152:ASN:HA	1.99	0.43
1:C:31:ASN:HA	1:C:74:VAL:O	2.18	0.43
1:C:38:LYS:HE3	1:C:38:LYS:HB2	1.79	0.43
1:E:9:GLY:O	1:E:13:ARG:N	2.43	0.43
2:F:13:ARG:HA	2:F:16:LEU:HB2	2.00	0.43
2:F:89:ILE:HB	2:F:113:ALA:HB2	2.00	0.43
1:G:9:GLY:O	1:G:13:ARG:HG3	2.18	0.43
1:G:77:ARG:HG2	3:G:401:NAD:N6A	2.33	0.43
2:H:69:LYS:NZ	2:H:71:ILE:HG13	2.34	0.43
2:H:85:GLY:CA	2:H:112:GLY:HA3	2.48	0.43
2:H:243:VAL:HA	2:H:306:LYS:HA	1.99	0.43
2:H:303:ASP:OD1	2:H:303:ASP:N	2.51	0.43
1:I:84:TRP:N	1:I:111:ALA:O	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:172:MET:O	1:I:227:GLY:HA3	2.18	0.43
1:K:17:ARG:NH1	1:K:44:LEU:O	2.44	0.43
1:K:31:ASN:HD21	1:K:76:ASN:C	2.21	0.43
1:K:84:TRP:HD1	1:K:113:ALA:HB2	1.83	0.43
1:K:91:ILE:HG13	1:K:115:LYS:H	1.83	0.43
2:L:3:VAL:O	2:L:27:VAL:HG13	2.18	0.43
2:L:16:LEU:HD13	2:L:44:LEU:HD13	2.00	0.43
2:L:176:HIS:CE1	2:L:311:TYR:HH	2.35	0.43
1:O:56:ASP:O	1:O:66:ILE:HA	2.18	0.43
1:O:192:ASP:CG	1:O:194:ARG:H	2.22	0.43
3:O:401:NAD:H2N	3:O:401:NAD:PN	2.58	0.43
2:P:15:PHE:HD2	2:P:318:SER:HB2	1.83	0.43
1:Q:96:THR:HG22	3:Q:401:NAD:C4A	2.48	0.43
2:R:237:VAL:HG13	2:R:311:TYR:O	2.18	0.43
1:A:139:HIS:HD2	1:A:139(A):ASP:OD1	2.02	0.43
1:C:116:VAL:HB	1:C:143:ILE:HG23	2.00	0.43
1:E:18(B):HIS:CG	1:E:66:ILE:HG21	2.53	0.43
1:E:68:GLY:O	1:E:70:PRO:HD3	2.19	0.43
1:E:81:LYS:HD3	1:E:81:LYS:HA	1.65	0.43
1:E:201:LEU:C	1:E:202:ASN:HD22	2.22	0.43
1:E:273:VAL:HG12	1:E:292:ILE:HB	2.01	0.43
2:F:304:MET:HE1	2:H:170:GLY:HA2	2.00	0.43
1:G:1:LEU:HB3	1:G:90:ASP:OD2	2.17	0.43
1:G:81:LYS:HD2	1:G:81:LYS:HA	1.91	0.43
1:G:246:ILE:H	1:G:303:ASP:CA	2.31	0.43
2:H:28:VAL:HG13	2:H:69:LYS:NZ	2.33	0.43
2:H:28:VAL:HA	2:H:71:ILE:HG13	2.00	0.43
2:H:164:LYS:HB3	2:H:165:PHE:CD1	2.53	0.43
2:H:331:LYS:HB2	2:H:333:GLN:NE2	2.32	0.43
1:I:45:LYS:HD2	1:I:53:PHE:H	1.84	0.43
1:I:159:LYS:HG3	1:I:218:LEU:HD21	2.00	0.43
1:I:289:SER:OG	1:I:290:SER:N	2.51	0.43
2:J:263:ALA:O	2:J:268:LYS:HG3	2.19	0.43
2:J:288:VAL:HG21	2:J:291:THR:HG1	1.83	0.43
1:K:18(A):TRP:NE1	1:K:23:SER:OG	2.52	0.43
1:K:66:ILE:HB	1:K:69:LYS:HB2	2.00	0.43
1:K:213:ALA:O	1:K:216:LEU:HB2	2.18	0.43
2:L:293:ASP:O	2:L:297:THR:HG23	2.17	0.43
2:P:174:THR:HA	2:P:240:VAL:CB	2.47	0.43
1:Q:214:VAL:O	1:Q:217:VAL:HB	2.18	0.43
1:Q:245:ASN:N	1:Q:245:ASN:OD1	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:349:CYS:O	1:Q:353:PRO:N	2.52	0.43
2:R:208:THR:HG23	2:R:210:ALA:HB3	2.01	0.43
2:R:213:ALA:HA	2:R:216:LEU:HD13	2.00	0.43
2:R:230:LEU:O	2:R:232:VAL:HG13	2.19	0.43
1:A:45:LYS:NZ	1:A:56:ASP:HA	2.32	0.43
1:A:175:THR:HG22	1:A:230:LEU:HD21	2.00	0.43
1:A:193:LEU:HD21	1:C:277:PRO:HG3	2.01	0.43
1:A:276:ILE:O	1:A:278:LEU:HG	2.19	0.43
1:A:318:SER:O	1:A:322:VAL:HG23	2.19	0.43
2:B:20:ARG:HG3	2:B:322:VAL:CG1	2.49	0.43
2:B:263:ALA:O	2:B:268:LYS:HG3	2.19	0.43
1:C:31:ASN:OD1	1:C:74:VAL:HB	2.19	0.43
1:C:69:LYS:HD2	1:C:69:LYS:HA	1.82	0.43
1:C:132:VAL:HA	1:C:159:LYS:HD2	2.00	0.43
1:C:176:HIS:H	1:C:232:VAL:CG1	2.31	0.43
1:C:214:VAL:HG21	1:C:225:LEU:HD23	2.00	0.43
1:C:229:ALA:O	1:C:230:LEU:HD13	2.19	0.43
1:C:294:SER:O	1:C:297:THR:OG1	2.23	0.43
1:C:324:LEU:HD23	1:C:327:LEU:HD11	2.00	0.43
2:D:55:ALA:HB1	2:D:67:ASP:OD1	2.19	0.43
2:D:192:ASP:HB3	2:D:195:ARG:HB2	2.00	0.43
2:D:218:LEU:HA	2:D:219:PRO:HD3	1.91	0.43
1:E:192:ASP:OD2	1:E:194:ARG:HB2	2.19	0.43
2:F:13:ARG:NE	2:F:43:LEU:HB3	2.34	0.43
2:F:117:LEU:HA	2:F:144:ILE:O	2.18	0.43
2:F:326:ASP:HA	2:F:329:ALA:HB3	2.00	0.43
1:G:126:PRO:CD	1:G:144:ILE:HG22	2.49	0.43
1:G:283:PHE:N	1:G:283:PHE:CD1	2.86	0.43
2:H:21:LYS:H	2:H:21:LYS:NZ	2.15	0.43
1:I:10:ARG:HD2	1:I:13:ARG:HH12	1.83	0.43
1:I:60:ILE:H	1:I:64:PHE:HB2	1.84	0.43
1:I:121:PRO:HG3	1:I:148:SER:H	1.82	0.43
1:I:184:LEU:HB3	2:L:184:LEU:HD13	2.01	0.43
2:J:10:ARG:NH1	1:K:186:ASP:O	2.52	0.43
2:J:167:ILE:HG23	2:J:246:VAL:HG12	1.99	0.43
2:J:192:ASP:OD2	2:J:195:ARG:HG3	2.19	0.43
2:J:194:ARG:NH2	2:L:277:PRO:HA	2.34	0.43
2:J:197:ARG:NH2	1:K:46:TYR:O	2.52	0.43
2:J:221:LEU:HG	2:J:225:LEU:HG	2.00	0.43
2:J:311:TYR:CE2	2:J:313:ASN:HB3	2.53	0.43
1:K:55:ALA:HB1	1:K:67:ASP:OD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:84:TRP:HA	1:K:89:ILE:HG13	2.00	0.43
1:K:176:HIS:C	1:K:231:ARG:HA	2.39	0.43
1:K:263:ALA:HB2	1:K:271:LEU:HD22	1.99	0.43
1:O:160:VAL:HA	1:O:163:GLU:OE2	2.18	0.43
1:O:172:MET:HG2	1:O:173:THR:N	2.34	0.43
1:O:274:CYS:SG	1:O:276:ILE:N	2.87	0.43
2:P:185:LEU:HD12	2:P:185:LEU:HA	1.65	0.43
2:P:185:LEU:O	2:P:187:ALA:N	2.51	0.43
2:P:191:ARG:H	2:P:191:ARG:CZ	2.32	0.43
2:P:267:LEU:HA	2:P:270:ILE:HB	2.01	0.43
2:P:297:THR:HG22	2:P:307:VAL:HA	2.00	0.43
2:P:300:MET:HE1	2:R:226:ASN:HB3	2.00	0.43
1:Q:2:LYS:O	1:Q:90:ASP:HB2	2.19	0.43
1:Q:31:ASN:CA	1:Q:74:VAL:HG12	2.38	0.43
1:Q:168:VAL:HG22	1:Q:169:LYS:HG3	2.01	0.43
1:Q:173:THR:HG23	1:Q:230:LEU:HD23	2.01	0.43
1:Q:256:ASN:O	1:Q:259:PHE:HB2	2.18	0.43
1:Q:281:VAL:HA	1:Q:284:ARG:NH2	2.32	0.43
2:R:7:GLY:O	2:R:95:GLY:HA3	2.18	0.43
1:A:17:ARG:NH1	1:A:44:LEU:O	2.52	0.43
1:A:32:ASP:O	1:A:75:SER:OG	2.20	0.43
1:A:128:TYR:HD1	1:A:128:TYR:HA	1.62	0.43
1:A:165:LEU:HD23	1:A:248:LYS:HD2	2.00	0.43
1:A:202:ASN:HD22	1:C:279:VAL:CG2	2.15	0.43
1:A:243:VAL:HA	1:A:306:LYS:HA	2.00	0.43
1:A:296:LEU:HD11	1:A:310:TRP:HE1	1.83	0.43
2:B:1:LEU:HD21	2:B:328:VAL:HB	2.01	0.43
2:B:11:ILE:O	2:B:14:ASN:HB3	2.18	0.43
1:C:105:ALA:HB1	1:C:143:ILE:HG12	2.00	0.43
1:C:200:ALA:HB3	1:C:201:LEU:HD22	2.01	0.43
2:D:214:VAL:O	2:D:217:VAL:HG22	2.19	0.43
1:E:41:THR:O	1:E:42:HIS:C	2.57	0.43
1:E:62:GLU:HB2	1:E:72:LYS:NZ	2.34	0.43
1:E:89:ILE:O	1:E:113:ALA:HA	2.19	0.43
1:E:254:ASP:OD2	1:E:254:ASP:N	2.49	0.43
1:E:323:ASP:HA	1:E:326:ASP:OD2	2.18	0.43
2:F:42:HIS:O	2:F:46:TYR:N	2.50	0.43
2:F:232:VAL:O	2:F:234:THR:N	2.50	0.43
2:F:264:ASP:HA	2:F:268:LYS:NZ	2.34	0.43
1:G:20:ARG:HD3	1:G:21:LYS:HZ3	1.83	0.43
1:G:175:THR:N	1:G:239:VAL:O	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:3:VAL:HA	1:I:91:ILE:O	2.19	0.43
1:I:84:TRP:HE1	1:I:108:HIS:HA	1.84	0.43
1:I:182:GLN:OE1	1:I:182:GLN:N	2.49	0.43
2:J:161:LEU:O	2:J:165:PHE:N	2.45	0.43
2:J:263:ALA:O	2:J:268:LYS:N	2.51	0.43
1:K:92:VAL:O	1:K:93:ILE:HD13	2.19	0.43
1:K:167:ILE:HD13	1:K:244:VAL:HG11	1.99	0.43
2:L:84:TRP:CE3	2:L:84:TRP:HA	2.53	0.43
2:L:190:HIS:HE1	2:L:195:ARG:HD2	1.83	0.43
1:O:18(A):TRP:HA	1:O:20:ARG:CB	2.48	0.43
1:O:82:LEU:O	1:O:84:TRP:N	2.50	0.43
1:O:236:ASN:HD21	1:O:312:ASP:CG	2.22	0.43
2:P:117:LEU:HA	2:P:144:ILE:O	2.18	0.43
2:P:291:THR:HB	2:P:310:TRP:CD1	2.54	0.43
1:Q:279:VAL:HG22	1:Q:280:SER:H	1.84	0.43
1:A:221:LEU:HD22	1:A:221:LEU:HA	1.83	0.43
1:A:283:PHE:CD1	1:A:283:PHE:N	2.86	0.43
1:A:320:ARG:HA	1:A:323:ASP:OD2	2.18	0.43
2:B:39:GLN:HE22	1:C:191:ARG:HE	1.67	0.43
1:C:107:LYS:HA	1:C:110:GLN:CD	2.39	0.43
1:C:139:HIS:HE2	1:C:333:PRO:HB3	1.84	0.43
1:C:151:THR:HG22	1:C:214:VAL:HG13	2.00	0.43
2:D:171:THR:O	2:D:242:LEU:HD12	2.18	0.43
2:D:237:VAL:HA	2:D:313:ASN:OD1	2.19	0.43
1:E:204:VAL:HB	1:E:231:ARG:HB2	2.00	0.43
2:F:2:LYS:HE3	2:F:87:MET:HB3	2.00	0.43
2:H:7:GLY:O	2:H:95:GLY:HA3	2.18	0.43
2:H:15:PHE:CE2	2:H:321:VAL:HG12	2.53	0.43
2:H:291:THR:O	2:H:292:ILE:HD13	2.19	0.43
1:I:139:HIS:CE1	1:I:331:LYS:HE3	2.53	0.43
2:J:29:VAL:O	2:J:30:ILE:HD13	2.18	0.43
2:J:116:VAL:O	2:J:144:ILE:HG12	2.18	0.43
2:J:272:SER:OG	2:J:290:SER:O	2.25	0.43
2:J:300:MET:HB2	2:J:304:MET:HG2	2.01	0.43
3:J:401:NAD:O2N	3:J:401:NAD:H4D	2.18	0.43
1:K:2:LYS:HE3	1:K:2:LYS:HB2	1.74	0.43
1:K:31:ASN:OD1	1:K:76:ASN:N	2.51	0.43
1:K:246:ILE:N	1:K:303:ASP:HB2	2.33	0.43
1:O:23:SER:OG	1:O:25:LEU:O	2.35	0.43
1:O:186:ASP:HB2	2:R:10:ARG:HH12	1.83	0.43
1:O:237:VAL:HG11	1:O:280:SER:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:154:LEU:H	2:P:154:LEU:HG	1.60	0.43
1:Q:10:ARG:N	1:Q:13:ARG:HH21	2.17	0.43
1:Q:74:VAL:HG22	1:Q:75:SER:H	1.84	0.43
1:Q:267:LEU:HB3	1:Q:271:LEU:HB3	2.00	0.43
2:R:13:ARG:HB3	2:R:44:LEU:HD12	1.99	0.43
2:R:85:GLY:CA	2:R:112:GLY:HA3	2.49	0.43
2:R:221:LEU:H	2:R:221:LEU:HD12	1.83	0.43
2:R:313:ASN:OD1	2:R:313:ASN:N	2.52	0.43
1:A:132:VAL:N	1:A:134:GLU:OE1	2.52	0.43
1:A:152:ASN:OD1	1:A:152:ASN:N	2.52	0.43
1:A:239:VAL:HB	1:A:310:TRP:CE2	2.53	0.43
1:A:246:ILE:HB	1:A:305:VAL:CG1	2.49	0.43
2:B:6:ASN:ND2	2:B:108:HIS:HE1	2.16	0.43
2:B:38:LYS:HZ2	2:B:38:LYS:H	1.65	0.43
1:C:151:THR:HG1	1:C:152:ASN:H	1.67	0.43
1:C:242:LEU:O	1:C:306:LYS:HA	2.18	0.43
1:C:332:TRP:CG	1:C:333:PRO:HD2	2.54	0.43
2:D:10:ARG:O	2:D:13:ARG:HD2	2.18	0.43
2:D:161:LEU:HD12	2:D:165:PHE:CD1	2.54	0.43
2:D:181:ASP:HB3	2:D:182:GLN:NE2	2.34	0.43
2:D:182:GLN:HG3	2:D:195:ARG:HG2	2.01	0.43
1:E:0:LYS:H2	1:E:26:ASP:N	2.16	0.43
1:E:71:ILE:HG22	1:E:72:LYS:O	2.19	0.43
1:E:121:PRO:HG3	1:E:148:SER:HB3	2.00	0.43
1:E:134:GLU:HG2	1:E:135:LYS:H	1.84	0.43
1:E:257:ASN:ND2	1:E:260:ARG:HH11	2.16	0.43
2:F:47:ASP:C	1:G:197:ARG:HH22	2.22	0.43
2:F:283:PHE:N	2:F:283:PHE:CD1	2.87	0.43
1:G:79:PRO:HB3	1:G:108:HIS:CG	2.54	0.43
1:G:100:VAL:CG2	1:G:122(A):LYS:HG2	2.49	0.43
1:G:178:TYR:CE1	1:G:235:PRO:HA	2.54	0.43
1:G:267:LEU:O	1:G:271:LEU:HB3	2.19	0.43
2:H:90:ASP:HB3	2:H:332:TRP:CH2	2.53	0.43
2:H:208:THR:HG23	2:H:210:ALA:HB3	2.01	0.43
1:I:154:LEU:HA	1:I:157:PHE:CZ	2.53	0.43
2:J:79:PRO:HG2	2:J:107:LYS:HB2	2.01	0.43
1:K:11:ILE:HG22	3:K:401:NAD:O2N	2.18	0.43
2:L:45:LYS:NZ	2:L:53:PHE:HB3	2.34	0.43
2:L:69:LYS:HZ3	2:L:71:ILE:HG12	1.84	0.43
1:O:149:CYS:HB2	1:O:313:ASN:HA	2.01	0.43
1:O:162:ASP:O	1:O:165:LEU:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:170:GLY:O	1:O:225:LEU:HA	2.18	0.43
1:O:197:ARG:HG3	1:Q:279:VAL:HB	2.01	0.43
2:P:1:LEU:O	2:P:26:ASP:N	2.52	0.43
2:P:226:ASN:HB3	2:R:300:MET:HE1	2.01	0.43
2:P:326:ASP:O	2:P:330:ASN:N	2.29	0.43
1:Q:63:THR:HG23	1:Q:72:LYS:HA	2.01	0.43
1:A:53:PHE:CE2	1:A:55:ALA:HB3	2.54	0.43
2:B:38:LYS:H	2:B:38:LYS:HD3	1.84	0.43
2:B:240:VAL:HG13	2:B:309:ALA:CB	2.48	0.43
1:C:285:CYS:HA	1:C:315:TRP:CD2	2.54	0.43
1:C:293:ASP:O	1:C:297:THR:HG23	2.19	0.43
1:C:300:MET:HG3	1:C:301:GLY:N	2.34	0.43
2:D:109:LEU:HD11	2:D:143:ILE:HG12	2.00	0.43
2:D:172:MET:SD	2:D:227:GLY:HA3	2.59	0.43
2:D:204:VAL:CG2	2:D:231:ARG:HB2	2.48	0.43
1:E:38:LYS:HG3	1:E:39:SER:N	2.27	0.43
1:E:129:VAL:N	1:E:133:ASN:OD1	2.32	0.43
1:E:221:LEU:C	1:E:224:LYS:HZ2	2.22	0.43
2:F:31:ASN:OD1	2:F:76:ASP:N	2.51	0.43
2:F:237:VAL:HG13	2:F:311:TYR:O	2.18	0.43
2:F:243:VAL:HA	2:F:305:VAL:O	2.18	0.43
1:G:14:ASN:OD1	1:G:14:ASN:N	2.52	0.43
2:H:18:CYS:SG	2:H:318:SER:OG	2.77	0.43
1:I:65:SER:HB2	1:I:70:PRO:HA	2.01	0.43
1:I:89:ILE:HA	1:I:89:ILE:HD13	1.87	0.43
1:I:179:THR:H	1:I:182:GLN:HE22	1.67	0.43
1:I:194:ARG:HG3	1:I:194:ARG:NH1	2.32	0.43
1:I:202:ASN:CB	1:K:279:VAL:HB	2.49	0.43
1:I:270:VAL:HG13	1:I:320:ARG:NH1	2.34	0.43
2:J:10:ARG:HH21	1:K:185:LEU:HB3	1.84	0.43
1:K:42:HIS:CG	1:K:46:TYR:HE2	2.36	0.43
1:K:221:LEU:HD22	1:K:221:LEU:HA	1.82	0.43
2:L:92:VAL:HG21	2:L:108:HIS:HB3	1.99	0.43
1:O:82:LEU:HD13	1:O:84:TRP:HZ2	1.84	0.42
1:O:271:LEU:CA	1:O:288:PHE:HB3	2.49	0.42
1:Q:96:THR:HA	3:Q:401:NAD:C1B	2.48	0.42
1:Q:100:VAL:HB	1:Q:122(A):LYS:HB2	2.01	0.42
1:Q:127:THR:HG21	1:Q:216:LEU:HB3	2.01	0.42
1:Q:160:VAL:HA	1:Q:163:GLU:OE2	2.18	0.42
1:Q:242:LEU:O	1:Q:306:LYS:HA	2.19	0.42
2:R:14:ASN:OD1	2:R:315:TRP:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:117:LEU:HA	2:R:145:SER:HA	2.01	0.42
1:A:258:ALA:HA	1:A:261:LYS:HB2	2.01	0.42
2:B:85:GLY:HA3	2:B:112:GLY:HA3	2.00	0.42
2:B:118:ILE:HG22	2:B:120:ALA:N	2.34	0.42
2:B:221:LEU:HG	2:B:225:LEU:HG	2.00	0.42
2:B:230:LEU:O	2:B:232:VAL:HG13	2.19	0.42
1:C:45:LYS:O	1:C:53:PHE:N	2.52	0.42
1:C:152:ASN:HD21	1:C:320:ARG:CB	2.32	0.42
1:C:161:LEU:O	1:C:165:LEU:N	2.43	0.42
1:C:312:ASP:OD2	1:C:314:GLU:N	2.52	0.42
1:E:96:THR:O	1:E:98:VAL:HG13	2.19	0.42
1:E:179:THR:OG1	1:E:181:ASP:OD2	2.37	0.42
1:E:232:VAL:HB	1:E:233:PRO:HD2	2.00	0.42
1:E:298:MET:HG2	1:E:306:LYS:HD3	2.00	0.42
1:E:329:ALA:O	1:E:332:TRP:HB2	2.18	0.42
2:F:29:VAL:HA	2:F:72:LYS:O	2.19	0.42
2:F:29:VAL:O	2:F:30:ILE:HD13	2.19	0.42
2:F:109:LEU:HA	2:F:113:ALA:HB3	2.01	0.42
2:F:129:VAL:HG13	2:F:130:VAL:O	2.19	0.42
2:F:262:SER:HA	2:F:265:ASN:ND2	2.34	0.42
2:F:280:SER:N	2:H:202:ASN:HD22	2.16	0.42
2:F:287:ASP:O	2:F:320:ARG:NH1	2.51	0.42
2:F:297:THR:HG22	2:F:307:VAL:HA	2.00	0.42
1:G:321:VAL:HA	1:G:324:LEU:HG	2.00	0.42
1:I:8:PHE:HZ	1:I:16:LEU:HD13	1.83	0.42
1:I:126:PRO:O	1:I:128:TYR:N	2.51	0.42
1:I:171:THR:HA	1:I:226:ASN:H	1.84	0.42
2:J:20:ARG:HG3	2:J:322:VAL:CG1	2.49	0.42
2:J:194:ARG:NH2	2:L:278:LEU:H	2.17	0.42
1:K:262:ALA:HA	1:K:266:PRO:HD2	2.02	0.42
2:L:89:ILE:HD13	2:L:89:ILE:HA	1.77	0.42
1:O:188:SER:OG	2:R:39:GLN:NE2	2.52	0.42
1:O:228:ILE:HG21	1:Q:296:LEU:HD22	2.01	0.42
2:P:77:ARG:CB	3:P:401:NAD:H62A	2.29	0.42
2:P:94:GLU:OE2	2:P:98:VAL:N	2.52	0.42
2:P:159:LYS:HE3	2:P:159:LYS:HB3	1.86	0.42
2:P:193:LEU:HB2	2:R:277:PRO:HG2	1.99	0.42
1:Q:37:VAL:CG2	1:Q:62:GLU:HA	2.49	0.42
1:Q:55:ALA:HB1	1:Q:67:ASP:OD1	2.19	0.42
1:A:185:LEU:HD12	2:D:10:ARG:HH12	1.74	0.42
2:B:59:THR:HA	2:B:64:ILE:HA	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:193:LEU:O	2:B:197:ARG:HG2	2.19	0.42
2:B:278:LEU:HB3	2:B:283:PHE:HE1	1.84	0.42
2:B:288:VAL:HG21	2:B:291:THR:HG1	1.85	0.42
1:C:6:ASN:ND2	1:C:96:THR:H	2.17	0.42
1:C:72:LYS:HB3	1:C:72:LYS:HE2	1.36	0.42
2:D:10:ARG:CG	3:D:401:NAD:O1N	2.67	0.42
2:D:92:VAL:HG21	2:D:108:HIS:HB3	2.01	0.42
1:E:139:HIS:CE1	1:E:333:PRO:HD2	2.55	0.42
1:E:149:CYS:HA	1:E:152:ASN:HB2	2.01	0.42
1:E:300:MET:SD	1:G:171:THR:OG1	2.76	0.42
2:F:95:GLY:HA2	2:F:119:THR:HG21	2.01	0.42
2:F:159:LYS:HG3	2:F:218:LEU:HD22	2.01	0.42
2:F:226:ASN:HB3	2:H:300:MET:HE1	2.00	0.42
1:G:9:GLY:HA2	3:G:401:NAD:H4B	2.01	0.42
1:G:24:PRO:HB2	1:G:329:ALA:HB1	2.01	0.42
1:G:58:LYS:HE2	1:G:68:GLY:N	2.34	0.42
1:G:79:PRO:HG2	1:G:107:LYS:HB2	2.01	0.42
1:G:281:VAL:HA	1:G:284:ARG:HG3	2.00	0.42
2:H:271:LEU:HD13	2:H:271:LEU:HA	1.84	0.42
1:I:1:LEU:HD21	1:I:332:TRP:NE1	2.33	0.42
2:J:119:THR:OG1	2:J:120:ALA:N	2.52	0.42
2:J:168:ILE:N	2:J:245:GLN:O	2.52	0.42
2:J:176:HIS:CG	2:J:231:ARG:HG2	2.54	0.42
2:J:205:PRO:HA	2:J:230:LEU:HD23	2.01	0.42
1:K:9:GLY:HA2	3:K:401:NAD:O3B	2.19	0.42
1:K:84:TRP:NE1	1:K:92:VAL:HG21	2.35	0.42
1:K:151:THR:HA	1:K:154:LEU:HG	2.01	0.42
2:L:145:SER:OG	2:L:146:ASN:N	2.52	0.42
2:L:162:ASP:OD1	2:L:166:GLY:HA2	2.19	0.42
2:L:190:HIS:HB3	2:L:196:ALA:HB2	2.01	0.42
2:L:190:HIS:ND1	2:L:195:ARG:HB2	2.33	0.42
2:L:253:GLU:O	2:L:256:ASN:N	2.51	0.42
1:O:47:ASP:H	1:O:51:GLY:C	2.23	0.42
2:P:29:VAL:O	2:P:30:ILE:HD13	2.19	0.42
2:P:103:ASP:HB2	2:P:107:LYS:HZ3	1.84	0.42
2:P:283:PHE:N	2:P:283:PHE:CD1	2.87	0.42
1:Q:230:LEU:HD13	1:Q:230:LEU:HA	1.63	0.42
2:R:20:ARG:NH2	2:R:319:GLN:O	2.53	0.42
2:R:195:ARG:HH21	2:R:231:ARG:HH21	1.66	0.42
2:R:289:SER:O	2:R:311:TYR:HA	2.19	0.42
1:A:139:HIS:CE1	1:A:328:VAL:HG13	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:190:HIS:HE1	1:A:191:ARG:HE	1.67	0.42
2:B:102:ARG:HA	2:B:105:ALA:HB3	2.02	0.42
2:B:171:THR:O	2:B:242:LEU:HD12	2.18	0.42
2:B:234:THR:OG1	2:B:236:ASN:N	2.45	0.42
2:B:277:PRO:HG3	2:D:193:LEU:HD13	2.02	0.42
3:B:401:NAD:H2D	3:B:401:NAD:H6N	1.72	0.42
1:C:77:ARG:CZ	3:C:401:NAD:C4A	2.97	0.42
1:C:134:GLU:HB3	1:C:327:LEU:HD13	2.00	0.42
1:C:271:LEU:HD11	1:C:273:VAL:HG22	2.01	0.42
2:D:84:TRP:HA	2:D:84:TRP:HE3	1.84	0.42
2:D:106:GLY:O	2:D:110:GLN:NE2	2.52	0.42
2:D:165:PHE:HZ	2:D:254:GLU:HG2	1.83	0.42
2:D:192:ASP:OD2	2:D:194:ARG:HB2	2.20	0.42
2:D:204:VAL:HB	2:D:231:ARG:H	1.84	0.42
2:D:240:VAL:HG12	2:D:311:TYR:HD1	1.84	0.42
1:E:202:ASN:OD1	1:G:281:VAL:HG22	2.20	0.42
2:F:6:ASN:HB2	2:F:84:TRP:CH2	2.52	0.42
2:F:45:LYS:HD3	2:F:57:VAL:CB	2.48	0.42
2:F:49:ILE:HG23	2:F:284:ARG:NH1	2.34	0.42
2:F:55:ALA:O	2:F:57:VAL:N	2.52	0.42
2:F:109:LEU:HD22	2:F:114:LYS:C	2.39	0.42
2:F:296:LEU:HB2	2:F:308:ILE:HG13	2.00	0.42
1:G:17:ARG:CZ	1:G:53:PHE:HB2	2.49	0.42
1:G:154:LEU:HG	1:G:158:VAL:HG11	2.01	0.42
1:G:242:LEU:HB3	1:G:307:VAL:HG12	2.02	0.42
1:G:264:ALA:HA	1:G:268:LYS:NZ	2.35	0.42
1:G:300:MET:N	1:G:304:MET:O	2.52	0.42
2:H:14:ASN:OD1	2:H:315:TRP:HA	2.19	0.42
2:H:109:LEU:HD11	2:H:143:ILE:HG23	2.00	0.42
2:H:119:THR:O	2:H:317:TYR:OH	2.37	0.42
2:H:179:THR:N	2:H:182:GLN:HE22	2.17	0.42
2:H:179:THR:N	2:H:182:GLN:OE1	2.50	0.42
1:I:0:LYS:N	1:I:26:ASP:OD1	2.47	0.42
2:J:18:CYS:O	2:J:20:ARG:HG2	2.18	0.42
2:J:59:THR:HA	2:J:64:ILE:HG23	2.01	0.42
1:K:166:GLY:HA3	1:K:247:GLU:OE1	2.19	0.42
1:K:239:VAL:HA	1:K:309:ALA:O	2.19	0.42
1:K:243:VAL:O	1:K:244:VAL:HG13	2.19	0.42
2:L:176:HIS:HB3	2:L:231:ARG:HA	2.01	0.42
1:O:1:LEU:HD23	1:O:91:ILE:HG13	2.00	0.42
1:Q:15:PHE:O	1:Q:18:CYS:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:18(B):HIS:CE1	1:Q:69:LYS:HD2	2.54	0.42
1:Q:58:LYS:HD3	1:Q:59:ILE:N	2.34	0.42
2:B:66:VAL:N	2:B:69:LYS:O	2.38	0.42
2:B:135:GLU:CD	2:B:135:GLU:H	2.21	0.42
2:B:176:HIS:ND1	2:B:231:ARG:HG2	2.34	0.42
1:C:234:THR:CB	1:C:237:VAL:HG12	2.49	0.42
2:D:148:SER:HG	2:D:151:THR:H	1.59	0.42
2:D:224:LYS:HZ1	2:D:225:LEU:HD23	1.84	0.42
1:E:0:LYS:HE3	1:E:24:PRO:O	2.19	0.42
1:E:9:GLY:O	1:E:13:ARG:HG3	2.19	0.42
1:E:18(A):TRP:CH2	1:E:71:ILE:HD11	2.55	0.42
2:F:28:VAL:HG13	2:F:70:VAL:O	2.19	0.42
2:F:139:HIS:HD2	2:F:333:GLN:HB2	1.84	0.42
2:F:151:THR:HG21	2:F:213:ALA:HB3	2.01	0.42
1:G:300:MET:HB3	1:G:304:MET:CB	2.48	0.42
1:G:300:MET:HG2	1:G:304:MET:HE2	2.01	0.42
2:H:137:TYR:CZ	2:H:328:VAL:HA	2.55	0.42
2:H:319:GLN:HB3	2:H:320:ARG:HH21	1.83	0.42
1:I:306:LYS:HD2	1:K:228:ILE:HD13	2.01	0.42
2:J:128:TYR:HD2	2:J:144:ILE:HB	1.84	0.42
2:J:153:CYS:HG	2:J:290:SER:HG	1.68	0.42
1:K:137:TYR:CG	1:K:138:GLY:N	2.87	0.42
2:L:84:TRP:HA	2:L:84:TRP:HE3	1.85	0.42
2:L:205:PRO:HA	2:L:230:LEU:HD23	2.00	0.42
1:O:116:VAL:O	1:O:144:ILE:HG23	2.19	0.42
1:O:132:VAL:HG11	1:O:155:ALA:HB1	2.01	0.42
2:P:139:HIS:HB3	2:P:333:GLN:CD	2.40	0.42
2:R:251:PHE:CE1	2:R:254:GLU:HB2	2.54	0.42
2:R:291:THR:O	2:R:292:ILE:HD13	2.19	0.42
1:A:5:ILE:HB	1:A:30:VAL:HG13	2.02	0.42
1:A:211:ALA:CB	1:A:227:GLY:H	2.33	0.42
1:A:250:VAL:HG23	1:A:251:THR:O	2.20	0.42
2:B:14:ASN:ND2	2:B:314:GLU:HB3	2.34	0.42
2:B:194:ARG:NH1	2:D:279:VAL:HG13	2.35	0.42
1:C:37:VAL:HG11	1:C:64:PHE:HB3	2.01	0.42
1:C:60(A):ASP:OD1	1:C:62:GLU:HG2	2.19	0.42
1:C:118:ILE:HB	1:C:145:SER:HB2	2.02	0.42
2:D:145:SER:OG	2:D:146:ASN:N	2.51	0.42
1:E:53:PHE:CE2	1:E:55:ALA:HB3	2.54	0.42
1:E:90:ASP:OD1	1:E:90:ASP:N	2.52	0.42
1:E:149:CYS:HB3	1:E:317:TYR:CD1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:204:VAL:CG2	1:E:231:ARG:HB2	2.49	0.42
1:E:246:ILE:N	1:E:303:ASP:O	2.53	0.42
2:F:31:ASN:HA	2:F:73:VAL:HG23	2.00	0.42
2:F:140:ALA:N	2:F:333:GLN:OE1	2.52	0.42
1:G:21:LYS:HE2	1:G:21:LYS:HB2	1.84	0.42
1:G:83:PRO:HB2	1:G:86:GLU:HB3	2.02	0.42
2:H:53:PHE:HD1	2:H:54:ASP:N	2.18	0.42
2:H:255:VAL:O	2:H:258:ALA:HB3	2.20	0.42
2:H:293:ASP:HB3	2:H:308:ILE:HG13	2.00	0.42
3:H:401:NAD:HO3N	3:H:401:NAD:PA	2.42	0.42
1:I:40:ALA:HA	1:I:43:LEU:HD12	2.02	0.42
2:J:94:GLU:HG3	2:J:99:PHE:CD2	2.55	0.42
2:J:208:THR:HG22	2:J:229:ALA:HB2	2.01	0.42
2:J:240:VAL:HG13	2:J:309:ALA:CB	2.48	0.42
1:K:129:VAL:HG13	1:K:132:VAL:HB	2.00	0.42
1:K:276:ILE:HD13	1:K:276:ILE:H	1.84	0.42
2:L:172:MET:SD	2:L:227:GLY:HA3	2.60	0.42
2:L:247:SER:OG	2:L:248:LYS:N	2.52	0.42
1:O:37:VAL:CG1	1:O:62:GLU:HA	2.21	0.42
1:O:166:GLY:O	1:O:246:ILE:HD12	2.19	0.42
1:O:172:MET:HG3	1:O:242:LEU:HB2	2.02	0.42
1:O:186:ASP:H	2:R:10:ARG:NH2	2.17	0.42
1:O:195:ARG:HH21	1:O:231:ARG:CZ	2.33	0.42
1:O:202:ASN:OD1	1:Q:280:SER:HB2	2.19	0.42
2:P:6:ASN:HB2	2:P:84:TRP:HH2	1.84	0.42
2:P:12:GLY:O	2:P:16:LEU:HG	2.20	0.42
2:P:13:ARG:HB3	2:P:44:LEU:HB2	2.01	0.42
2:P:31:ASN:OD1	2:P:76:ASP:N	2.52	0.42
2:P:120:ALA:HB2	3:P:401:NAD:H2D	2.01	0.42
1:Q:20:ARG:HA	1:Q:20:ARG:CZ	2.50	0.42
2:R:60:ALA:H	2:R:64:ILE:HA	1.85	0.42
2:R:99:PHE:HD1	2:R:104:GLY:HA3	1.81	0.42
1:A:191:ARG:C	2:D:39:GLN:HE22	2.22	0.42
1:A:272:ASP:HB3	1:A:291:THR:OG1	2.20	0.42
1:A:306:LYS:NZ	1:C:228:ILE:HG22	2.35	0.42
2:B:237:VAL:HG13	2:B:311:TYR:O	2.19	0.42
2:B:253:GLU:HA	2:B:256:ASN:OD1	2.19	0.42
1:C:14:ASN:H	1:C:14:ASN:HD22	1.67	0.42
1:C:28:VAL:HA	1:C:71:ILE:CG1	2.49	0.42
1:C:229:ALA:C	1:C:230:LEU:HD22	2.40	0.42
1:E:155:ALA:N	1:E:156:PRO:HD2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:0:LYS:H3	1:G:24:PRO:C	2.22	0.42
1:G:57:VAL:HG23	1:G:65:SER:O	2.20	0.42
1:G:248:LYS:HA	1:G:248(A):VAL:CG1	2.44	0.42
2:H:1:LEU:HA	2:H:1:LEU:HD12	1.86	0.42
2:H:38:LYS:H	2:H:38:LYS:HZ2	1.66	0.42
2:H:251:PHE:CE1	2:H:254:GLU:HB2	2.54	0.42
2:H:311:TYR:CE2	2:H:313:ASN:HB3	2.54	0.42
1:I:1:LEU:HD21	1:I:332:TRP:HE1	1.85	0.42
2:J:1:LEU:O	2:J:3:VAL:HG23	2.19	0.42
2:J:7:GLY:O	2:J:95:GLY:HA3	2.19	0.42
2:J:179:THR:N	2:J:182:GLN:OE1	2.47	0.42
1:K:20:ARG:HA	1:K:21:LYS:NZ	2.34	0.42
1:K:81:LYS:HE2	1:K:81:LYS:HB2	1.58	0.42
1:K:89:ILE:O	1:K:113:ALA:HA	2.20	0.42
1:K:133:ASN:N	1:K:134:GLU:OE1	2.52	0.42
1:K:279:VAL:N	1:K:282:ASP:OD2	2.41	0.42
2:L:268:LYS:O	2:L:270:ILE:HG12	2.19	0.42
1:O:18(B):HIS:O	1:O:19:GLY:C	2.57	0.42
1:O:83:PRO:HA	1:O:86:GLU:HB2	2.00	0.42
1:O:100:VAL:O	1:O:122:ALA:HB1	2.19	0.42
1:O:139:HIS:ND1	1:O:139(A):ASP:N	2.66	0.42
2:P:289:SER:HG	2:P:289:SER:H	1.49	0.42
2:R:255:VAL:O	2:R:258:ALA:HB3	2.20	0.42
2:R:293:ASP:HB3	2:R:308:ILE:HG13	2.02	0.42
1:A:29:VAL:HG13	1:A:72:LYS:HB2	2.02	0.42
1:A:183:ARG:HH22	1:G:357:GLU:HA	1.85	0.42
1:A:211:ALA:HB1	1:A:227:GLY:H	1.84	0.42
1:C:77:ARG:HA	1:C:77:ARG:HD2	1.87	0.42
2:D:29:VAL:HA	2:D:72:LYS:HB2	2.00	0.42
1:E:171:THR:OG1	1:G:306:LYS:NZ	2.25	0.42
1:E:246:ILE:N	1:E:304:MET:HA	2.31	0.42
2:F:123:GLY:O	2:F:125:ILE:N	2.48	0.42
1:G:327:LEU:HA	1:G:330:ASN:HD21	1.84	0.42
2:H:30:ILE:HG22	2:H:31:ASN:H	1.85	0.42
2:H:44:LEU:O	2:H:53:PHE:HB2	2.19	0.42
2:H:64:ILE:O	2:H:71:ILE:N	2.53	0.42
2:J:183:ARG:HD2	2:J:187:ALA:HB3	2.02	0.42
2:J:190:HIS:HB3	2:J:196:ALA:HB2	2.02	0.42
2:J:285:CYS:HA	2:J:315:TRP:CD1	2.54	0.42
2:J:311:TYR:HE2	2:J:313:ASN:HB3	1.85	0.42
1:K:30:VAL:HG22	1:K:73:VAL:CG2	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:119:THR:OG1	1:K:119:THR:O	2.34	0.42
1:K:283:PHE:HD1	1:K:291:THR:HG1	1.63	0.42
2:L:3:VAL:HG22	2:L:91:LEU:HB3	2.00	0.42
2:L:159:LYS:HB2	2:L:218:LEU:HD13	2.00	0.42
2:L:190:HIS:CE1	2:L:195:ARG:HB2	2.55	0.42
1:O:83:PRO:O	1:O:87:LEU:HB2	2.20	0.42
1:O:175:THR:O	1:O:238:SER:HA	2.20	0.42
1:O:204:VAL:CG2	1:O:231:ARG:HB2	2.50	0.42
2:P:11:ILE:H	2:P:11:ILE:HG12	1.45	0.42
2:P:38:LYS:H	2:P:38:LYS:HD3	1.83	0.42
2:P:215:ALA:HA	2:P:222:LYS:HG2	2.01	0.42
2:P:264:ASP:HA	2:P:268:LYS:NZ	2.34	0.42
2:P:267:LEU:HD13	2:P:271:LEU:HB2	2.02	0.42
2:P:281:ILE:HD13	2:P:284:ARG:HH21	1.85	0.42
1:Q:157:PHE:O	1:Q:161:LEU:HG	2.20	0.42
1:Q:215:SER:CB	1:Q:222:LYS:HA	2.49	0.42
2:R:89:ILE:HD13	2:R:89:ILE:HA	1.86	0.42
2:R:164:LYS:HB3	2:R:165:PHE:CD1	2.54	0.42
2:R:275:ASP:OD1	2:R:295:SER:N	2.27	0.42
2:B:37:VAL:HG23	2:B:38:LYS:HD3	2.01	0.42
2:B:320:ARG:O	2:B:324:LEU:N	2.42	0.42
1:C:109:ILE:HD12	1:C:113:ALA:HB3	2.01	0.42
1:E:178:TYR:CE1	1:E:235:PRO:HA	2.54	0.42
2:F:118:ILE:HB	2:F:145:SER:CB	2.50	0.42
2:F:135:GLU:OE1	2:F:136:GLY:N	2.44	0.42
1:G:1:LEU:O	1:G:3:VAL:HG23	2.19	0.42
1:G:94:GLU:HB2	1:G:118:ILE:HG12	2.01	0.42
1:G:122(A):LYS:C	1:G:123(A):SER:H	2.23	0.42
2:H:267:LEU:HA	2:H:267:LEU:HD23	1.82	0.42
1:I:243:VAL:HA	1:I:306:LYS:HA	2.02	0.42
1:I:254:ASP:OD1	1:I:255:VAL:N	2.53	0.42
2:J:1:LEU:HD21	2:J:328:VAL:HB	2.01	0.42
2:J:14:ASN:ND2	2:J:315:TRP:HA	2.35	0.42
2:J:101:ASP:CG	2:J:104:GLY:H	2.22	0.42
2:J:105:ALA:HA	2:J:108:HIS:CD2	2.54	0.42
2:J:159:LYS:HE3	2:J:159:LYS:HB3	1.85	0.42
2:J:238:SER:OG	2:J:311:TYR:OH	2.35	0.42
2:J:324:LEU:HD12	2:J:327:ILE:HB	2.02	0.42
1:K:211:ALA:O	1:K:214:VAL:HG22	2.19	0.42
2:L:28:VAL:O	2:L:28:VAL:HG12	2.20	0.42
2:L:183:ARG:CZ	2:L:190:HIS:HB2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:239:VAL:HG13	2:L:310:TRP:CD2	2.55	0.42
1:O:93:ILE:HA	1:O:117:ILE:HG22	2.01	0.42
1:O:161:LEU:HD11	1:O:167:ILE:HD11	2.02	0.42
1:O:237:VAL:HG21	1:O:280:SER:HB3	2.02	0.42
2:P:118:ILE:HB	2:P:145:SER:CB	2.50	0.42
2:P:129:VAL:HG13	2:P:130:VAL:O	2.19	0.42
1:Q:109:ILE:HA	1:Q:113:ALA:HB3	2.02	0.42
2:R:76:ASP:OD1	2:R:77:ARG:N	2.53	0.42
2:R:101:ASP:HB2	2:R:103:ASP:OD1	2.20	0.42
2:R:175:THR:O	2:R:238:SER:OG	2.37	0.42
2:R:319:GLN:HB3	2:R:320:ARG:HH21	1.84	0.42
1:A:10:ARG:HD2	1:A:13:ARG:NH2	2.35	0.42
1:A:92:VAL:O	1:A:117:ILE:HG22	2.19	0.42
1:A:192:ASP:O	1:A:196:ALA:HB2	2.20	0.42
1:A:246:ILE:HD12	1:A:246:ILE:HA	1.91	0.42
2:B:0:LYS:H2	2:B:26:ASP:CG	2.19	0.42
1:C:1:LEU:O	1:C:3:VAL:HG23	2.20	0.42
1:C:4:ALA:O	1:C:93:ILE:N	2.53	0.42
1:C:291:THR:CB	1:C:310:TRP:HB2	2.50	0.42
2:D:15:PHE:CE1	2:D:322:VAL:HG22	2.55	0.42
2:D:109:LEU:HD21	2:D:116:VAL:HG23	2.01	0.42
2:D:175:THR:OG1	2:D:239:VAL:N	2.48	0.42
2:D:239:VAL:HG13	2:D:310:TRP:CD2	2.55	0.42
1:E:42:HIS:CG	2:H:193:LEU:HD22	2.54	0.42
1:E:103:PRO:N	1:K:110:GLN:HG2	2.34	0.42
1:E:129:VAL:HG11	1:E:152:ASN:OD1	2.20	0.42
1:E:202:ASN:OD1	1:G:280:SER:N	2.52	0.42
1:E:325:ALA:HA	1:E:328:VAL:HB	2.01	0.42
2:H:12:GLY:O	2:H:16:LEU:HB2	2.20	0.42
2:H:60:ALA:H	2:H:64:ILE:HA	1.85	0.42
2:H:84:TRP:CE3	2:H:89:ILE:HG21	2.55	0.42
2:H:122:GLY:CA	2:H:125:ILE:HG12	2.49	0.42
2:H:169:LYS:NZ	2:H:245:GLN:OE1	2.32	0.42
1:I:129:VAL:HG21	1:I:152:ASN:HA	2.00	0.42
1:I:137:TYR:OH	1:I:139:HIS:HA	2.19	0.42
2:J:38:LYS:HZ2	2:J:39:GLN:H	1.66	0.42
2:J:102:ARG:HA	2:J:105:ALA:HB3	2.01	0.42
2:J:218:LEU:HA	2:J:218:LEU:HD23	1.72	0.42
2:J:253:GLU:HA	2:J:256:ASN:OD1	2.19	0.42
1:K:30:VAL:O	1:K:74:VAL:N	2.38	0.42
1:K:62:GLU:HB2	1:K:73:VAL:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:257:ASN:HA	1:K:260:ARG:CD	2.50	0.42
1:K:321:VAL:HA	1:K:324:LEU:HD12	2.01	0.42
2:L:58:LYS:HE2	2:L:59:THR:N	2.35	0.42
2:L:90:ASP:HA	2:L:114:LYS:HE2	2.02	0.42
2:L:169:LYS:HD2	2:L:245:GLN:OE1	2.20	0.42
1:O:246:ILE:HB	1:O:303:ASP:HA	2.02	0.42
1:O:253:GLU:O	1:O:255:VAL:N	2.48	0.42
1:O:254:ASP:HA	1:O:257:ASN:HD22	1.84	0.42
1:O:285:CYS:HB3	1:O:315:TRP:CZ2	2.54	0.42
2:P:183:ARG:HH22	2:P:191:ARG:NH1	2.17	0.42
2:P:296:LEU:HB2	2:P:308:ILE:HG13	2.01	0.42
1:Q:218:LEU:HD22	1:Q:220:GLN:NE2	2.35	0.42
2:R:90:ASP:HB3	2:R:332:TRP:CH2	2.54	0.42
2:R:272:SER:O	2:R:291:THR:HA	2.20	0.42
1:A:100:VAL:HG12	1:A:122:ALA:HA	2.01	0.42
1:A:126:PRO:HB2	1:A:128:TYR:CD1	2.55	0.42
1:A:164:GLU:HB3	1:A:165:LEU:HD12	2.01	0.42
2:B:7:GLY:HA3	2:B:96:THR:N	2.34	0.42
2:B:159:LYS:HD2	2:B:160:VAL:HG23	2.02	0.42
1:C:31:ASN:OD1	1:C:76:ASN:N	2.52	0.42
2:D:59:THR:HA	2:D:64:ILE:HA	2.02	0.42
2:D:253:GLU:OE2	2:D:257:ALA:N	2.53	0.42
1:E:105:ALA:O	1:E:109:ILE:N	2.33	0.42
1:E:109:ILE:HD13	1:E:113:ALA:HB3	2.02	0.42
1:E:298:MET:O	1:E:306:LYS:HB3	2.20	0.42
2:F:3:VAL:HA	2:F:91:LEU:H	1.85	0.42
2:F:197:ARG:HH22	1:G:47:ASP:N	2.17	0.42
2:F:321:VAL:O	2:F:325:ALA:N	2.46	0.42
1:G:65:SER:HA	1:G:69:LYS:O	2.20	0.42
1:G:254:ASP:OD1	1:G:255:VAL:HG23	2.20	0.42
1:G:256:ASN:C	1:G:260:ARG:HE	2.19	0.42
2:H:94:GLU:OE1	2:H:118:ILE:HD11	2.19	0.42
2:H:218:LEU:O	2:H:222:LYS:NZ	2.35	0.42
2:H:239:VAL:HG13	2:H:310:TRP:HA	2.02	0.42
1:I:38:LYS:O	1:I:41:THR:HB	2.20	0.42
1:I:57:VAL:HG23	1:I:64:PHE:CE2	2.55	0.42
1:I:164:GLU:O	1:I:248:LYS:NZ	2.46	0.42
1:I:221:LEU:HD13	1:I:224:LYS:HD2	2.02	0.42
2:J:2:LYS:HB3	2:J:2:LYS:HE3	1.80	0.42
2:J:89:ILE:O	2:J:114:LYS:HG3	2.20	0.42
2:J:298:MET:HE1	2:L:226:ASN:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:320:ARG:O	2:J:324:LEU:N	2.42	0.42
1:K:118:ILE:HD12	1:K:144:ILE:O	2.20	0.42
1:K:171:THR:HG1	1:K:226:ASN:C	2.22	0.42
1:K:194:ARG:HB3	1:K:204:VAL:CG2	2.49	0.42
1:O:281:VAL:HG11	2:P:48:SER:HA	2.02	0.41
2:P:20:ARG:HE	2:P:319:GLN:NE2	2.18	0.41
2:P:59:THR:HA	2:P:64:ILE:HG23	2.01	0.41
2:P:187:ALA:O	2:P:196:ALA:HB1	2.19	0.41
2:P:252:ALA:O	2:P:255:VAL:HG22	2.20	0.41
2:P:262:SER:HA	2:P:265:ASN:ND2	2.35	0.41
1:Q:81:LYS:HA	1:Q:81:LYS:HD2	1.85	0.41
1:Q:107:LYS:HA	1:Q:110:GLN:HB2	2.01	0.41
1:Q:139:HIS:CE1	1:Q:333:PRO:HA	2.55	0.41
1:Q:167:ILE:O	1:Q:221:LEU:HD11	2.19	0.41
1:Q:254:ASP:OD1	1:Q:255:VAL:HG23	2.20	0.41
1:Q:329:ALA:O	1:Q:332:TRP:HB2	2.20	0.41
2:R:128:TYR:CD2	2:R:144:ILE:HD12	2.55	0.41
2:R:137:TYR:CZ	2:R:328:VAL:HA	2.55	0.41
2:R:159:LYS:O	2:R:163:GLN:N	2.35	0.41
2:R:168:ILE:H	2:R:168:ILE:HG13	1.61	0.41
2:R:281:ILE:C	2:R:283:PHE:H	2.24	0.41
2:R:331:LYS:HB2	2:R:333:GLN:NE2	2.32	0.41
1:A:124:ASP:O	1:G:103:PRO:HD3	2.20	0.41
1:A:239:VAL:HG23	1:A:309:ALA:O	2.20	0.41
2:B:66:VAL:HB	2:B:69:LYS:HB3	2.02	0.41
2:B:105:ALA:HA	2:B:108:HIS:CD2	2.55	0.41
2:B:194:ARG:NH2	2:D:277:PRO:HA	2.34	0.41
2:B:263:ALA:O	2:B:268:LYS:N	2.52	0.41
1:C:78:ASP:OD2	1:C:81:LYS:N	2.31	0.41
1:C:83:PRO:C	1:C:84:TRP:HE3	2.23	0.41
1:C:139:HIS:NE2	1:C:139(A):ASP:OD1	2.53	0.41
1:C:183:ARG:HA	1:C:183:ARG:HH11	1.83	0.41
2:D:183:ARG:CZ	2:D:190:HIS:HB2	2.50	0.41
2:D:265:ASN:OD1	2:D:266:GLU:HG2	2.20	0.41
2:F:0:LYS:H3	2:F:24:PRO:C	2.22	0.41
2:F:150:THR:O	2:F:154:LEU:HG	2.20	0.41
2:F:157:PHE:CE2	2:F:158:VAL:HG13	2.55	0.41
2:F:285:CYS:HA	2:F:315:TRP:CD1	2.55	0.41
1:G:20:ARG:HG2	1:G:20:ARG:HH11	1.85	0.41
1:G:78:ASP:O	1:G:82:LEU:HG	2.20	0.41
1:G:205:PRO:HG2	1:G:228:ILE:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:222:LYS:HD2	1:G:222:LYS:HA	1.82	0.41
2:H:29:VAL:HA	2:H:72:LYS:O	2.20	0.41
2:H:272:SER:O	2:H:291:THR:HA	2.20	0.41
1:I:5:ILE:O	1:I:31:ASN:N	2.51	0.41
1:I:40:ALA:HA	1:I:43:LEU:HB2	2.02	0.41
1:I:69:LYS:HA	1:I:69:LYS:HD3	1.76	0.41
1:I:153:CYS:O	1:I:156:PRO:HD2	2.20	0.41
2:J:165:PHE:CZ	2:J:255:VAL:HB	2.54	0.41
2:J:173:THR:HG1	2:L:306:LYS:NZ	2.14	0.41
1:K:3:VAL:O	1:K:28:VAL:HG12	2.20	0.41
1:K:64:PHE:HE2	1:K:66:ILE:HD11	1.84	0.41
2:L:11:ILE:HG12	3:L:401:NAD:O2N	2.20	0.41
2:L:158:VAL:HA	2:L:161:LEU:HD23	2.01	0.41
1:O:33:SER:CB	1:O:77:ARG:NH1	2.67	0.41
1:O:154:LEU:HD13	1:O:214:VAL:HG12	2.02	0.41
1:O:214:VAL:HG23	1:O:215:SER:H	1.84	0.41
1:O:252:ALA:HB2	1:O:299:VAL:HG23	2.02	0.41
1:O:285:CYS:HA	1:O:315:TRP:CD2	2.54	0.41
2:P:232:VAL:O	2:P:234:THR:N	2.51	0.41
2:P:303:ASP:OD1	2:P:303:ASP:N	2.48	0.41
1:Q:186:ASP:HA	1:Q:196:ALA:O	2.20	0.41
1:Q:204:VAL:HB	1:Q:231:ARG:HB2	2.01	0.41
1:Q:256:ASN:C	1:Q:260:ARG:HE	2.17	0.41
1:Q:312:ASP:CG	1:Q:315:TRP:HB3	2.41	0.41
1:Q:325:ALA:O	1:Q:329:ALA:N	2.36	0.41
2:R:10:ARG:H	2:R:10:ARG:HG2	1.55	0.41
2:R:12:GLY:O	2:R:16:LEU:HB2	2.20	0.41
2:R:177:SER:CA	2:R:234:THR:HG23	2.42	0.41
3:R:401:NAD:H6N	3:R:401:NAD:H2D	1.81	0.41
1:A:53:PHE:HB3	1:A:55:ALA:O	2.20	0.41
2:B:37:VAL:HG12	2:B:64:ILE:HD11	2.02	0.41
2:B:96:THR:HB	3:B:401:NAD:N7A	2.35	0.41
1:C:20:ARG:HE	1:C:21:LYS:HD3	1.85	0.41
1:C:77:ARG:HD2	3:C:401:NAD:N1A	2.35	0.41
1:C:84:TRP:HB3	1:C:89:ILE:HB	2.00	0.41
1:C:157:PHE:O	1:C:160:VAL:HG13	2.20	0.41
2:D:90:ASP:HA	2:D:114:LYS:HE2	2.02	0.41
2:D:186:ASP:N	2:D:198:ALA:HB2	2.36	0.41
2:D:199:ALA:HA	2:D:202:ASN:OD1	2.19	0.41
2:D:268:LYS:O	2:D:270:ILE:HG12	2.20	0.41
1:E:79:PRO:HB3	1:E:108:HIS:CG	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:213:ALA:HA	2:F:216:LEU:HD13	2.02	0.41
2:F:251:PHE:CE2	2:F:253:GLU:HB3	2.55	0.41
1:G:116:VAL:HB	1:G:144:ILE:N	2.27	0.41
1:G:154:LEU:HD23	1:G:214:VAL:HG11	2.01	0.41
1:G:197:ARG:HD2	1:G:197:ARG:HA	1.79	0.41
2:H:94:GLU:OE2	2:H:96:THR:OG1	2.30	0.41
2:H:126:PRO:HG2	2:H:144:ILE:HG22	2.03	0.41
1:I:17:ARG:CZ	1:I:53:PHE:HA	2.50	0.41
1:I:46:TYR:HD2	1:I:52:THR:OG1	2.02	0.41
1:I:193:LEU:HB2	1:K:277:PRO:HG2	2.02	0.41
1:I:316:GLY:O	1:I:320:ARG:HD3	2.20	0.41
2:J:115:LYS:NZ	2:J:139:HIS:O	2.31	0.41
2:J:124:ASP:N	2:J:124:ASP:OD1	2.53	0.41
1:K:28:VAL:C	1:K:71:ILE:HG23	2.40	0.41
1:K:62:GLU:O	1:K:73:VAL:N	2.52	0.41
1:K:347:ASP:O	1:K:351:ASP:N	2.29	0.41
2:L:2:LYS:H	2:L:2:LYS:HG2	1.63	0.41
2:L:106:GLY:O	2:L:110:GLN:NE2	2.53	0.41
2:L:165:PHE:HA	2:L:248:LYS:NZ	2.36	0.41
2:L:244:VAL:O	2:L:246:VAL:HG13	2.20	0.41
2:P:150:THR:O	2:P:154:LEU:HG	2.20	0.41
2:P:183:ARG:NH2	2:P:190:HIS:HA	2.35	0.41
2:P:213:ALA:HA	2:P:216:LEU:HD13	2.02	0.41
2:P:251:PHE:CE2	2:P:253:GLU:HB3	2.55	0.41
2:R:183:ARG:NE	2:R:190:HIS:HB2	2.34	0.41
1:A:10:ARG:O	1:A:14:ASN:ND2	2.23	0.41
1:A:46:TYR:CE2	2:B:278:LEU:HD11	2.55	0.41
1:A:148:SER:OG	1:A:150:THR:HB	2.20	0.41
2:B:94:GLU:HG3	2:B:99:PHE:HD2	1.85	0.41
2:B:176:HIS:O	2:B:232:VAL:HG22	2.20	0.41
1:C:11:ILE:C	1:C:14:ASN:HD22	2.24	0.41
1:C:18(A):TRP:CG	1:C:18(B):HIS:N	2.87	0.41
1:C:57:VAL:HG13	1:C:66:ILE:HA	2.01	0.41
1:C:165:LEU:HD12	1:C:248:LYS:HZ3	1.86	0.41
1:C:165:LEU:HD13	1:C:255:VAL:HG13	2.01	0.41
1:C:253:GLU:H	1:C:253:GLU:HG3	1.69	0.41
2:D:213:ALA:HA	2:D:216:LEU:HD13	2.02	0.41
2:D:276:GLU:OE1	2:D:276:GLU:N	2.45	0.41
1:E:84:TRP:HA	1:E:89:ILE:HB	2.03	0.41
2:F:37:VAL:HG11	2:F:61:ASP:O	2.19	0.41
2:F:41:SER:OG	2:F:42:HIS:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:187:ALA:O	2:F:196:ALA:HB1	2.20	0.41
2:F:243:VAL:HG22	2:F:306:LYS:HA	2.01	0.41
1:G:45:LYS:NZ	1:G:53:PHE:HB3	2.35	0.41
1:G:58:LYS:HG3	1:G:67:ASP:H	1.84	0.41
1:G:65:SER:OG	1:G:66:ILE:N	2.53	0.41
1:G:84:TRP:O	1:G:88:GLY:N	2.53	0.41
1:G:272:ASP:HB2	1:G:288:PHE:CG	2.55	0.41
2:H:20:ARG:NH2	2:H:319:GLN:O	2.53	0.41
2:H:49:ILE:HA	2:H:284:ARG:NH1	2.35	0.41
1:I:100:VAL:HG12	1:I:122:ALA:HA	2.03	0.41
1:I:176:HIS:O	1:I:231:ARG:HA	2.21	0.41
1:I:218:LEU:HB3	1:I:220:GLN:HE22	1.84	0.41
2:J:278:LEU:H	2:L:194:ARG:NH2	2.17	0.41
1:K:193:LEU:O	1:K:197:ARG:HG2	2.20	0.41
2:L:76:ASP:OD1	2:L:77:ARG:N	2.53	0.41
2:L:199:ALA:C	2:L:201:LEU:N	2.73	0.41
1:O:84:TRP:HE3	1:O:89:ILE:HG13	1.84	0.41
1:O:132:VAL:HG21	1:O:155:ALA:HB3	2.01	0.41
1:O:169:LYS:HZ3	1:Q:304:MET:HG3	1.85	0.41
1:O:170:GLY:HA2	1:Q:304:MET:HE2	2.01	0.41
1:O:212:LYS:HZ2	1:O:212:LYS:N	2.17	0.41
1:Q:148:SER:HG	1:Q:150:THR:HG1	1.63	0.41
1:Q:153:CYS:SG	1:Q:154:LEU:N	2.93	0.41
1:Q:176:HIS:O	1:Q:231:ARG:HA	2.20	0.41
2:R:10:ARG:HG2	3:R:401:NAD:O2N	2.20	0.41
2:R:126:PRO:HG2	2:R:144:ILE:HG22	2.02	0.41
2:R:154:LEU:HA	2:R:157:PHE:CE1	2.55	0.41
1:A:1:LEU:HD21	1:A:332:TRP:NE1	2.36	0.41
1:A:175:THR:HB	1:A:232:VAL:HG11	2.02	0.41
1:A:246:ILE:HG13	1:A:248:LYS:H	1.86	0.41
1:A:285:CYS:HA	1:A:315:TRP:CD1	2.55	0.41
2:B:41:SER:HG	2:B:42:HIS:H	1.67	0.41
2:B:63:ALA:HA	2:B:72:LYS:HA	2.02	0.41
2:B:89:ILE:O	2:B:114:LYS:HG3	2.20	0.41
2:B:150:THR:OG1	2:B:151:THR:N	2.53	0.41
2:B:181:ASP:OD1	2:B:195:ARG:HD3	2.20	0.41
2:B:203:ILE:HG12	2:B:204:VAL:N	2.36	0.41
2:B:246:VAL:N	2:B:303:ASP:O	2.35	0.41
2:B:299:VAL:HG13	2:B:305:VAL:HG22	2.03	0.41
1:C:218:LEU:HD12	1:C:220:GLN:HE21	1.85	0.41
1:C:331:LYS:HE2	1:C:331:LYS:HB3	1.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:219:PRO:HA	2:D:222:LYS:HZ3	1.84	0.41
1:E:148:SER:O	1:E:151:THR:N	2.54	0.41
1:E:158:VAL:HA	1:E:161:LEU:HG	2.02	0.41
1:E:267:LEU:HB3	1:E:271:LEU:CB	2.46	0.41
1:E:325:ALA:O	1:E:328:VAL:HB	2.20	0.41
1:G:58:LYS:HB2	1:G:65:SER:HB3	2.02	0.41
1:G:82:LEU:HA	1:G:83:PRO:HD3	1.84	0.41
2:H:287:ASP:OD1	2:H:288:VAL:N	2.51	0.41
1:I:131:GLY:O	1:I:159:LYS:NZ	2.37	0.41
1:I:179:THR:N	1:I:182:GLN:HE22	2.17	0.41
2:J:102:ARG:HE	2:J:102:ARG:HB2	1.55	0.41
2:J:159:LYS:HD2	2:J:160:VAL:HG23	2.02	0.41
2:J:222:LYS:O	2:J:224:LYS:HG2	2.21	0.41
1:K:185:LEU:O	1:K:187:ALA:N	2.53	0.41
1:K:264:ALA:HA	1:K:268:LYS:HZ1	1.83	0.41
2:L:174:THR:OG1	2:L:175:THR:N	2.52	0.41
2:L:240:VAL:HG12	2:L:311:TYR:HD1	1.85	0.41
1:O:123(A):SER:CB	1:C:141:ALA:HA	2.50	0.41
1:O:131:GLY:HA3	1:O:270:VAL:HG11	2.02	0.41
1:O:206:THR:H	1:O:228:ILE:HD12	1.84	0.41
1:O:288:PHE:HB2	1:O:291:THR:HG23	2.01	0.41
1:O:306:LYS:HZ3	1:Q:228:ILE:HG12	1.85	0.41
1:O:310:TRP:CD1	1:O:310:TRP:N	2.88	0.41
2:P:0:LYS:HZ2	2:P:1:LEU:HD13	1.83	0.41
2:P:157:PHE:CE2	2:P:158:VAL:HG13	2.55	0.41
2:P:250:THR:N	2:P:302:ASP:HB3	2.34	0.41
1:Q:20:ARG:HE	1:Q:21:LYS:NZ	2.19	0.41
1:Q:257:ASN:N	1:Q:260:ARG:HH21	2.19	0.41
2:R:160:VAL:HA	2:R:163:GLN:HB2	2.02	0.41
2:R:182:GLN:HA	2:R:195:ARG:O	2.20	0.41
1:A:169:LYS:HD3	1:A:169:LYS:HA	1.60	0.41
2:B:208:THR:HG22	2:B:229:ALA:HB2	2.03	0.41
2:B:238:SER:O	2:B:311:TYR:N	2.54	0.41
1:C:150:THR:HG1	1:C:151:THR:H	1.69	0.41
1:C:171:THR:HA	1:C:225:LEU:HD12	2.03	0.41
2:D:11:ILE:HG12	3:D:401:NAD:O2N	2.21	0.41
2:D:172:MET:HB3	2:D:242:LEU:HD13	2.02	0.41
1:E:105:ALA:HA	1:E:108:HIS:HD2	1.84	0.41
1:E:194:ARG:H	1:E:194:ARG:HG2	1.68	0.41
1:G:45:LYS:O	1:G:53:PHE:N	2.39	0.41
1:G:125:ILE:H	1:G:125:ILE:HD12	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:230:LEU:O	1:G:232:VAL:HG23	2.21	0.41
1:G:238:SER:HB3	1:G:311:TYR:CE2	2.54	0.41
2:H:154:LEU:HA	2:H:157:PHE:CE1	2.55	0.41
2:H:160:VAL:HA	2:H:163:GLN:HB2	2.03	0.41
2:H:315:TRP:O	2:H:319:GLN:N	2.37	0.41
1:I:58:LYS:HB3	1:I:65:SER:C	2.40	0.41
1:I:176:HIS:HA	1:I:238:SER:CB	2.50	0.41
1:I:190:HIS:O	1:I:196:ALA:HB2	2.20	0.41
2:J:20:ARG:HH21	2:J:319:GLN:NE2	2.19	0.41
2:J:101:ASP:OD1	2:J:101:ASP:N	2.50	0.41
2:J:135:GLU:CD	2:J:135:GLU:H	2.22	0.41
2:J:150:THR:OG1	2:J:151:THR:N	2.53	0.41
2:J:190:HIS:ND1	2:J:192:ASP:N	2.68	0.41
2:J:193:LEU:HB2	2:L:277:PRO:HG2	2.03	0.41
2:J:204:VAL:N	2:J:231:ARG:O	2.54	0.41
2:J:215:ALA:C	2:J:222:LYS:HZ3	2.24	0.41
2:J:230:LEU:O	2:J:232:VAL:HG13	2.21	0.41
2:J:239:VAL:HG13	2:J:310:TRP:CD2	2.55	0.41
2:J:245:GLN:HG2	2:J:304:MET:HB2	2.03	0.41
1:K:157:PHE:CD2	1:K:158:VAL:HG13	2.56	0.41
1:K:232:VAL:O	1:K:234:THR:N	2.48	0.41
2:L:44:LEU:O	2:L:53:PHE:HB2	2.21	0.41
2:L:118:ILE:HB	2:L:145:SER:CB	2.50	0.41
2:L:176:HIS:O	2:L:231:ARG:HA	2.21	0.41
2:L:218:LEU:HA	2:L:219:PRO:HD3	1.92	0.41
2:L:287:ASP:O	2:L:320:ARG:NH1	2.53	0.41
1:O:5:ILE:HG23	1:O:93:ILE:HB	2.03	0.41
1:O:192:ASP:OD1	1:O:194:ARG:HG2	2.20	0.41
2:P:44:LEU:O	2:P:53:PHE:HB2	2.21	0.41
2:P:92:VAL:HG21	2:P:108:HIS:HB2	2.02	0.41
2:P:304:MET:HB2	2:R:169:LYS:HZ3	1.84	0.41
2:P:305:VAL:HG12	2:P:307:VAL:HG12	2.03	0.41
1:Q:30:VAL:HG12	1:Q:32:ASP:H	1.85	0.41
1:Q:63:THR:OG1	1:Q:72:LYS:HG3	2.20	0.41
1:Q:159:LYS:HG2	1:Q:163:GLU:OE1	2.21	0.41
1:Q:219:PRO:O	1:Q:222:LYS:N	2.43	0.41
1:Q:231:ARG:HD3	1:Q:231:ARG:HA	1.79	0.41
1:Q:267:LEU:H	1:Q:267:LEU:HD22	1.86	0.41
2:R:30:ILE:HG22	2:R:31:ASN:H	1.85	0.41
2:R:192:ASP:OD2	2:R:194:ARG:HB2	2.21	0.41
2:R:256:ASN:HA	2:R:259:PHE:CD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1:LEU:HD12	1:A:1:LEU:HA	1.68	0.41
2:B:5:ILE:O	2:B:31:ASN:N	2.49	0.41
2:B:15:PHE:CD2	2:B:322:VAL:HG22	2.56	0.41
1:C:298:MET:HG2	1:C:306:LYS:CE	2.51	0.41
2:D:32:ASP:OD1	2:D:34:GLY:N	2.45	0.41
2:D:39:GLN:C	2:D:43:LEU:HG	2.40	0.41
2:D:153:CYS:SG	2:D:311:TYR:HB3	2.60	0.41
1:E:1:LEU:O	1:E:3:VAL:HG23	2.20	0.41
1:E:58:LYS:HD2	1:E:58:LYS:HA	1.84	0.41
1:E:139:HIS:O	1:E:140:VAL:HG23	2.21	0.41
2:F:8:PHE:H	2:F:32:ASP:CB	2.30	0.41
2:F:331:LYS:O	2:F:333:GLN:HG3	2.20	0.41
1:G:1:LEU:HG	1:G:332:TRP:CE2	2.56	0.41
2:H:268:LYS:HE2	2:H:268:LYS:HB2	1.95	0.41
1:I:11:ILE:HD11	1:I:318:SER:N	2.35	0.41
1:I:94:GLU:OE1	1:I:119:THR:N	2.53	0.41
1:I:184:LEU:HG	1:I:185:LEU:N	2.36	0.41
1:I:211:ALA:O	1:I:225:LEU:HB3	2.20	0.41
2:J:30:ILE:HG22	2:J:31:ASN:N	2.36	0.41
2:J:204:VAL:O	2:J:206:THR:HG22	2.21	0.41
2:J:232:VAL:O	2:J:234:THR:N	2.52	0.41
2:J:277:PRO:HB2	2:L:194:ARG:CG	2.51	0.41
1:K:84:TRP:CE3	1:K:89:ILE:HD12	2.55	0.41
2:L:20:ARG:NH2	2:L:319:GLN:O	2.54	0.41
2:L:139:HIS:CD2	2:L:333:GLN:H	2.38	0.41
2:L:203:ILE:HG23	2:L:205:PRO:HD3	2.02	0.41
2:L:213:ALA:HA	2:L:216:LEU:HD13	2.02	0.41
2:L:312:ASP:HB3	2:L:316:GLY:H	1.86	0.41
1:O:57:VAL:O	1:O:58:LYS:C	2.58	0.41
1:O:115:LYS:HD3	1:O:328:VAL:CG1	2.51	0.41
1:O:171:THR:HG21	1:Q:306:LYS:HD2	2.03	0.41
1:O:320:ARG:C	1:O:324:LEU:HG	2.41	0.41
2:P:18(A):TRP:CH2	2:P:69:LYS:HG2	2.56	0.41
2:P:293:ASP:O	2:P:297:THR:HG23	2.20	0.41
1:Q:149:CYS:HA	1:Q:152:ASN:OD1	2.20	0.41
1:Q:174:THR:CA	1:Q:240:VAL:HA	2.48	0.41
2:R:190:HIS:HB3	2:R:196:ALA:CB	2.47	0.41
2:R:270:ILE:O	2:R:289:SER:N	2.34	0.41
1:A:203:ILE:HD12	1:A:204:VAL:H	1.86	0.41
2:B:2:LYS:HB2	2:B:90:ASP:OD1	2.20	0.41
2:B:94:GLU:HG2	2:B:96:THR:HG23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:267:LEU:HB3	2:B:271:LEU:HB2	2.02	0.41
1:C:24:PRO:O	1:C:25:LEU:HD13	2.20	0.41
1:C:218:LEU:HA	1:C:220:GLN:NE2	2.35	0.41
1:C:253:GLU:HA	1:C:256:ASN:ND2	2.34	0.41
1:C:270:VAL:HA	1:C:320:ARG:NH1	2.36	0.41
1:E:25:LEU:N	1:E:25:LEU:HD22	2.36	0.41
1:E:49:ILE:HD13	1:E:49:ILE:HA	1.89	0.41
1:E:211:ALA:CB	1:E:226:ASN:HA	2.49	0.41
1:E:271:LEU:HD13	1:E:290:SER:HB3	2.03	0.41
1:E:328:VAL:HG12	1:E:332:TRP:CD1	2.56	0.41
2:F:0:LYS:HZ2	2:F:1:LEU:HD13	1.85	0.41
2:F:1:LEU:HD12	2:F:1:LEU:HA	1.92	0.41
2:F:20:ARG:HE	2:F:319:GLN:NE2	2.19	0.41
2:F:38:LYS:H	2:F:38:LYS:HD3	1.85	0.41
2:F:58:LYS:HD2	2:F:58:LYS:HA	1.42	0.41
2:F:292:ILE:HG23	2:F:308:ILE:O	2.20	0.41
1:G:3:VAL:HG21	1:G:25:LEU:HB3	2.03	0.41
1:G:47:ASP:OD1	1:G:49:ILE:HB	2.20	0.41
1:G:216:LEU:HD13	1:G:216:LEU:HA	1.82	0.41
2:H:56:ASP:OD1	2:H:57:VAL:N	2.54	0.41
2:H:139:HIS:CG	2:H:333:GLN:HB2	2.56	0.41
2:H:256:ASN:HA	2:H:259:PHE:CD2	2.55	0.41
2:H:281:ILE:C	2:H:283:PHE:H	2.23	0.41
1:I:31:ASN:HD21	1:I:76:ASN:C	2.23	0.41
1:I:32:ASP:O	1:I:75:SER:OG	2.16	0.41
1:I:105:ALA:HA	1:I:108:HIS:HD2	1.85	0.41
1:I:328:VAL:HG13	1:I:331:LYS:HE2	2.02	0.41
2:J:291:THR:O	2:J:310:TRP:N	2.33	0.41
1:K:56:ASP:N	1:K:67:ASP:OD1	2.53	0.41
1:O:279:VAL:HG23	1:Q:202:ASN:OD1	2.20	0.41
1:O:306:LYS:NZ	1:Q:228:ILE:HG12	2.35	0.41
2:P:250:THR:HG1	2:P:254:GLU:HB2	1.86	0.41
1:Q:171:THR:O	1:Q:242:LEU:HD12	2.21	0.41
2:R:67:ASP:OD1	2:R:67:ASP:N	2.53	0.41
2:R:139:HIS:CG	2:R:333:GLN:HB2	2.56	0.41
2:R:264:ASP:O	2:R:268:LYS:HB2	2.20	0.41
1:A:13:ARG:HH11	1:A:13:ARG:HB3	1.86	0.41
1:A:187:ALA:HA	2:D:43:LEU:HD22	2.01	0.41
1:A:265:GLY:HA3	1:A:266:PRO:HD3	1.87	0.41
2:B:168:ILE:H	2:B:168:ILE:HG13	1.69	0.41
2:B:171:THR:HB	2:D:306:LYS:HE3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:13:ARG:H	1:C:13:ARG:NH1	2.19	0.41
1:C:15:PHE:O	1:C:18(A):TRP:N	2.27	0.41
2:D:82:LEU:O	2:D:84:TRP:N	2.54	0.41
1:E:18(B):HIS:HD2	1:E:53:PHE:CZ	2.38	0.41
1:E:56:ASP:N	1:E:67:ASP:OD1	2.39	0.41
1:E:82:LEU:HA	1:E:83:PRO:HD3	1.78	0.41
1:E:271:LEU:HB3	1:E:290:SER:OG	2.20	0.41
2:F:18:CYS:CB	2:F:322:VAL:HG21	2.50	0.41
2:F:28:VAL:HG22	2:F:69:LYS:NZ	2.36	0.41
2:F:63:ALA:HA	2:F:72:LYS:HA	2.02	0.41
2:F:300:MET:HE1	2:H:226:ASN:HB3	2.02	0.41
1:G:15:PHE:O	1:G:18(A):TRP:N	2.29	0.41
1:G:32:ASP:OD2	1:G:36:GLY:N	2.54	0.41
1:G:84:TRP:CD1	1:G:84:TRP:N	2.88	0.41
1:G:169:LYS:HB2	1:G:245:ASN:ND2	2.36	0.41
1:G:183:ARG:HB3	1:G:185:LEU:O	2.21	0.41
2:H:33:THR:H	3:H:401:NAD:H2A	1.86	0.41
2:H:80:VAL:HG12	2:H:110:GLN:HE22	1.85	0.41
2:H:117:LEU:HA	2:H:145:SER:HA	2.02	0.41
1:I:10:ARG:HB3	1:I:10:ARG:HH11	1.85	0.41
1:I:38:LYS:H	1:I:38:LYS:HG3	1.58	0.41
2:J:41:SER:OG	2:J:42:HIS:N	2.53	0.41
2:J:47:ASP:HB3	2:J:51:GLY:O	2.20	0.41
2:J:294:SER:H	2:J:294:SER:HG	1.48	0.41
2:J:320:ARG:HA	2:J:320:ARG:HD3	1.80	0.41
1:K:134:GLU:CD	1:K:134:GLU:N	2.74	0.41
1:K:311:TYR:N	1:K:311:TYR:CD1	2.89	0.41
2:L:204:VAL:HB	2:L:231:ARG:HB2	2.03	0.41
1:O:5:ILE:HB	1:O:30:VAL:HG22	2.02	0.41
1:O:20:ARG:HD3	1:O:21:LYS:N	2.35	0.41
1:O:38:LYS:HG3	1:O:39:SER:N	2.27	0.41
1:O:119:THR:O	1:O:119:THR:OG1	2.33	0.41
1:O:166:GLY:HA3	1:O:247:GLU:OE2	2.21	0.41
1:O:174:THR:HG23	1:O:176:HIS:H	1.85	0.41
1:O:253:GLU:C	1:O:255:VAL:H	2.24	0.41
1:O:358:CYS:O	1:C:190:HIS:NE2	2.54	0.41
2:P:64:ILE:HG12	2:P:71:ILE:O	2.21	0.41
2:P:203:ILE:HD11	2:P:230:LEU:HD22	2.03	0.41
2:P:275:ASP:OD1	2:P:294:SER:N	2.53	0.41
1:Q:8:PHE:CG	1:Q:32:ASP:OD2	2.72	0.41
1:Q:49:ILE:HD12	1:Q:50:LEU:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:136:ASP:N	1:Q:136:ASP:OD1	2.54	0.41
1:Q:267:LEU:O	1:Q:271:LEU:HB3	2.21	0.41
2:R:29:VAL:HG11	2:R:89:ILE:HD11	2.03	0.41
2:R:47:ASP:OD2	2:R:49:ILE:HB	2.20	0.41
2:R:80:VAL:HG12	2:R:110:GLN:HE22	1.86	0.41
2:R:84:TRP:CE3	2:R:89:ILE:HG21	2.56	0.41
2:R:148:SER:HA	2:R:317:TYR:OH	2.21	0.41
2:R:208:THR:HG22	2:R:229:ALA:HB2	2.02	0.41
2:R:239:VAL:HG13	2:R:310:TRP:HA	2.02	0.41
2:R:264:ASP:O	2:R:268:LYS:NZ	2.47	0.41
1:A:49:ILE:HG22	1:A:50:LEU:HD13	2.02	0.41
1:A:362:GLU:HA	1:G:181:ASP:HB3	2.01	0.41
2:B:14:ASN:ND2	2:B:315:TRP:HA	2.36	0.41
2:B:62:SER:HA	2:B:73:VAL:O	2.20	0.41
2:B:94:GLU:HG3	2:B:99:PHE:CD2	2.55	0.41
2:B:121:PRO:HG3	2:B:148:SER:H	1.83	0.41
2:B:192:ASP:OD2	2:B:195:ARG:HG3	2.20	0.41
2:B:222:LYS:O	2:B:224:LYS:HG2	2.21	0.41
2:B:280:SER:HB2	2:D:202:ASN:HD22	1.85	0.41
2:B:320:ARG:HA	2:B:320:ARG:HD3	1.80	0.41
1:C:8:PHE:HZ	1:C:13:ARG:HB3	1.81	0.41
1:C:45:LYS:HZ2	1:C:53:PHE:C	2.20	0.41
1:C:127:THR:OG1	1:C:128:TYR:N	2.54	0.41
1:C:153:CYS:SG	1:C:311:TYR:HB3	2.61	0.41
1:C:269:GLY:O	1:C:288:PHE:HA	2.21	0.41
3:C:401:NAD:O1N	3:C:401:NAD:H2N	2.20	0.41
2:D:25:LEU:HD13	2:D:25:LEU:HA	1.80	0.41
2:D:39:GLN:HA	2:D:42:HIS:ND1	2.36	0.41
2:D:87:MET:HE3	2:D:89:ILE:HD11	2.02	0.41
2:D:118:ILE:HB	2:D:145:SER:CB	2.50	0.41
2:D:162:ASP:OD1	2:D:166:GLY:HA2	2.21	0.41
2:D:167:ILE:HG12	2:D:246:VAL:HG12	2.03	0.41
2:D:185:LEU:O	2:D:187:ALA:N	2.46	0.41
2:D:190:HIS:HD2	2:D:191:ARG:NH2	2.18	0.41
1:E:23:SER:O	1:E:25:LEU:N	2.54	0.41
1:E:72:LYS:NZ	1:E:73:VAL:H	2.18	0.41
1:E:90:ASP:O	1:E:115:LYS:N	2.44	0.41
1:E:209:GLY:O	1:E:212:LYS:HG2	2.21	0.41
1:E:239:VAL:HB	1:E:310:TRP:CE3	2.55	0.41
1:E:251:THR:OG1	1:E:252:ALA:N	2.54	0.41
1:E:270:VAL:O	1:E:271:LEU:HD23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:20:ARG:HH21	2:F:319:GLN:NE2	2.19	0.41
2:F:38:LYS:NZ	2:F:39:GLN:HG3	2.36	0.41
2:F:185:LEU:O	2:F:187:ALA:N	2.52	0.41
2:F:274:CYS:SG	2:F:276:GLU:HG2	2.61	0.41
2:F:292:ILE:HD13	2:F:309:ALA:HA	2.03	0.41
2:F:311:TYR:CE2	2:F:313:ASN:HB3	2.56	0.41
2:F:326:ASP:O	2:F:330:ASN:N	2.31	0.41
1:G:167:ILE:HA	1:G:246:ILE:CD1	2.51	0.41
1:G:252:ALA:O	1:G:256:ASN:N	2.41	0.41
1:G:283:PHE:HA	1:G:286:SER:OG	2.21	0.41
1:G:308:VAL:HG22	1:G:309:ALA:H	1.86	0.41
2:H:17:ARG:NH2	2:H:53:PHE:HA	2.36	0.41
2:H:67:ASP:N	2:H:67:ASP:OD1	2.54	0.41
2:H:82:LEU:HD12	2:H:84:TRP:HE1	1.86	0.41
2:H:118:ILE:O	2:H:146:ASN:N	2.39	0.41
2:H:120:ALA:O	2:H:145:SER:OG	2.38	0.41
2:H:128:TYR:CD2	2:H:144:ILE:HD12	2.56	0.41
1:I:39:SER:HA	2:L:193:LEU:HD23	2.03	0.41
1:I:125:ILE:HA	1:I:126:PRO:HD2	1.94	0.41
1:I:169:LYS:O	1:I:244:VAL:HG13	2.21	0.41
1:I:267:LEU:O	1:I:271:LEU:N	2.52	0.41
1:I:306:LYS:HZ1	1:K:228:ILE:HG12	1.85	0.41
2:J:2:LYS:HB2	2:J:90:ASP:OD1	2.21	0.41
2:J:11:ILE:O	2:J:14:ASN:HB3	2.21	0.41
2:J:238:SER:OG	2:J:239:VAL:N	2.54	0.41
2:J:245:GLN:HA	2:J:304:MET:HA	2.03	0.41
2:J:289:SER:HB3	2:J:320:ARG:HG2	2.03	0.41
1:K:3:VAL:HG13	1:K:91:ILE:O	2.20	0.41
1:K:23:SER:OG	1:K:25:LEU:O	2.28	0.41
1:K:47:ASP:OD1	1:K:48:SER:N	2.54	0.41
1:K:57:VAL:HG13	1:K:66:ILE:HG12	2.03	0.41
1:K:94:GLU:O	1:K:118:ILE:HG23	2.20	0.41
1:K:118:ILE:HB	1:K:145:SER:HB2	2.03	0.41
1:K:139:HIS:HB2	1:K:331:LYS:O	2.21	0.41
2:L:29:VAL:O	2:L:30:ILE:HD13	2.21	0.41
2:L:38:LYS:H	2:L:38:LYS:NZ	2.18	0.41
2:L:82:LEU:O	2:L:84:TRP:N	2.54	0.41
2:L:153:CYS:SG	2:L:311:TYR:HB3	2.61	0.41
2:L:214:VAL:O	2:L:217:VAL:HG22	2.20	0.41
2:L:253:GLU:OE2	2:L:256:ASN:HB2	2.21	0.41
2:L:265:ASN:OD1	2:L:266:GLU:N	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:13:ARG:HG3	1:O:44:LEU:HD13	2.03	0.41
1:O:58:LYS:O	1:O:64:PHE:HA	2.21	0.41
1:O:153:CYS:HB2	1:O:289:SER:O	2.20	0.41
1:O:174:THR:HA	1:O:240:VAL:HA	2.03	0.41
1:O:300:MET:SD	1:Q:169:LYS:HB3	2.61	0.41
2:P:36:GLY:HA3	2:P:38:LYS:HZ1	1.85	0.41
2:P:199:ALA:O	2:P:202:ASN:N	2.47	0.41
1:Q:65:SER:HA	1:Q:69:LYS:O	2.21	0.41
2:R:84:TRP:CE3	2:R:113:ALA:HB2	2.56	0.41
2:R:124:ASP:OD1	2:R:124:ASP:N	2.54	0.41
1:A:7:GLY:HA2	3:A:401:NAD:H1B	2.02	0.41
1:A:11:ILE:HG23	1:A:12:GLY:H	1.85	0.41
1:A:84:TRP:CD1	1:A:111:ALA:HB3	2.56	0.41
1:A:203:ILE:N	1:C:280:SER:OG	2.54	0.41
1:A:239:VAL:HB	1:A:310:TRP:CE3	2.56	0.41
2:B:186:ASP:HB3	2:B:197:ARG:HA	2.03	0.41
2:B:220:ASN:HD22	2:B:221:LEU:HD12	1.86	0.41
2:B:226:ASN:OD1	2:B:227:GLY:N	2.54	0.41
1:C:83:PRO:CA	1:C:86:GLU:HB2	2.51	0.41
1:C:176:HIS:O	1:C:231:ARG:HD3	2.21	0.41
2:D:158:VAL:O	2:D:162:ASP:N	2.28	0.41
2:D:207:SER:HA	2:D:229:ALA:N	2.35	0.41
2:D:253:GLU:CD	2:D:256:ASN:HB2	2.41	0.41
1:E:46:TYR:HD1	1:E:52:THR:HG1	1.68	0.41
2:F:29:VAL:HG11	2:F:89:ILE:HD11	2.02	0.41
2:F:159:LYS:HE3	2:F:159:LYS:HB3	1.87	0.41
2:F:185:LEU:HD12	2:F:185:LEU:HA	1.72	0.41
2:F:275:ASP:OD1	2:F:295:SER:N	2.41	0.41
2:F:277:PRO:HG2	2:H:193:LEU:HD13	2.02	0.41
1:G:173:THR:C	1:G:240:VAL:HG23	2.42	0.41
1:G:190:HIS:HD1	1:G:190:HIS:H	1.69	0.41
1:G:245:ASN:O	1:G:246:ILE:HD13	2.20	0.41
1:G:257:ASN:N	1:G:260:ARG:HH21	2.19	0.41
2:H:37:VAL:HG23	2:H:38:LYS:HD3	2.02	0.41
2:H:104:GLY:HA2	2:H:107:LYS:HE2	2.03	0.41
2:H:173:THR:HB	2:H:241:ASP:OD2	2.21	0.41
2:H:230:LEU:O	2:H:232:VAL:HG13	2.20	0.41
2:H:250:THR:N	2:H:302:ASP:HB3	2.31	0.41
2:H:253:GLU:OE1	2:H:260:ARG:NH1	2.54	0.41
1:I:47:ASP:CG	1:I:50:LEU:H	2.15	0.41
1:I:191:ARG:H	1:I:191:ARG:HG3	1.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:194:ARG:HG2	1:K:277:PRO:HB2	2.03	0.41
2:J:10:ARG:NH2	1:K:186:ASP:H	2.19	0.41
2:J:15:PHE:CD1	2:J:322:VAL:HG22	2.56	0.41
2:J:28:VAL:HG22	2:J:69:LYS:HZ3	1.86	0.41
2:J:220:ASN:HD22	2:J:221:LEU:HD12	1.85	0.41
1:K:248:LYS:HG2	1:K:248(A):VAL:H	1.86	0.41
1:K:260:ARG:HG2	1:K:273:VAL:HG21	2.03	0.41
1:K:317:TYR:O	1:K:321:VAL:HG22	2.21	0.41
1:K:320:ARG:O	1:K:323:ASP:N	2.54	0.41
1:O:119:THR:HG21	3:O:401:NAD:H51N	2.03	0.40
1:O:127:THR:OG1	1:O:147:ALA:N	2.54	0.40
1:O:154:LEU:O	1:O:158:VAL:HG22	2.21	0.40
1:O:175:THR:OG1	1:O:175:THR:O	2.39	0.40
1:O:186:ASP:OD1	1:O:186:ASP:N	2.54	0.40
1:O:190:HIS:CE1	1:O:192:ASP:O	2.75	0.40
1:O:211:ALA:HB1	1:O:226:ASN:CA	2.51	0.40
1:Q:72:LYS:HG2	1:Q:73:VAL:H	1.85	0.40
1:Q:191:ARG:NE	1:I:358:CYS:O	2.54	0.40
1:Q:332:TRP:O	1:Q:334:GLY:N	2.49	0.40
2:R:94:GLU:OE1	2:R:118:ILE:HD11	2.21	0.40
2:R:149:CYS:CA	2:R:152:ASN:HD22	2.34	0.40
1:A:13:ARG:O	1:A:16:LEU:HB3	2.21	0.40
1:A:134:GLU:HG2	1:A:135:LYS:H	1.86	0.40
1:A:151:THR:OG1	1:A:152:ASN:N	2.55	0.40
1:A:202:ASN:OD1	1:C:280:SER:HB2	2.21	0.40
1:A:293:ASP:CB	1:A:296:LEU:HG	2.50	0.40
2:B:29:VAL:HA	2:B:72:LYS:O	2.22	0.40
1:C:60:ILE:HB	1:C:64:PHE:HA	2.04	0.40
1:C:137:TYR:OH	1:C:139:HIS:HB2	2.20	0.40
2:D:17:ARG:NH1	2:D:53:PHE:HA	2.37	0.40
2:D:169:LYS:HD2	2:D:245:GLN:OE1	2.21	0.40
1:E:291:THR:HG1	1:E:310:TRP:HD1	1.66	0.40
2:F:190:HIS:CD2	2:F:191:ARG:H	2.40	0.40
2:F:250:THR:HG1	2:F:254:GLU:HB2	1.86	0.40
2:F:252:ALA:O	2:F:255:VAL:HG22	2.20	0.40
1:G:8:PHE:CD2	1:G:13:ARG:HD3	2.55	0.40
1:G:96:THR:HA	3:G:401:NAD:O4B	2.21	0.40
1:G:236:ASN:HD22	1:G:314:GLU:HB2	1.86	0.40
1:G:272:ASP:HB2	1:G:288:PHE:CE2	2.55	0.40
2:H:102:ARG:HD2	2:H:143:ILE:HD12	2.02	0.40
2:H:139:HIS:HE1	2:H:332:TRP:HA	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:320:ARG:NE	2:H:323:ASP:OD2	2.55	0.40
1:I:39:SER:O	1:I:43:LEU:HG	2.21	0.40
2:J:10:ARG:HB2	2:J:314:GLU:OE1	2.21	0.40
2:J:89:ILE:HD13	2:J:89:ILE:HA	1.90	0.40
2:J:283:PHE:CD1	2:J:283:PHE:N	2.89	0.40
1:K:1:LEU:HD21	1:K:332:TRP:CE3	2.55	0.40
2:L:17:ARG:NH2	2:L:53:PHE:HA	2.36	0.40
2:L:261:GLU:O	2:L:264:ASP:HB2	2.21	0.40
2:L:272:SER:O	2:L:291:THR:HA	2.21	0.40
1:O:10:ARG:NH2	2:R:186:ASP:OD1	2.54	0.40
1:O:206:THR:O	1:O:228:ILE:HB	2.20	0.40
1:O:248:LYS:HG2	1:O:248(A):VAL:H	1.86	0.40
2:P:272:SER:O	2:P:291:THR:HA	2.20	0.40
3:P:401:NAD:H52A	3:P:401:NAD:H8A	2.03	0.40
1:Q:109:ILE:H	1:Q:109:ILE:HG12	1.67	0.40
1:Q:171:THR:O	1:Q:243:VAL:N	2.37	0.40
1:Q:179:THR:OG1	1:Q:182:GLN:HB3	2.22	0.40
2:R:269:GLY:HA2	2:R:288:VAL:HG12	2.03	0.40
2:R:311:TYR:CE2	2:R:313:ASN:HB3	2.56	0.40
1:A:47:ASP:HB3	1:A:51:GLY:N	2.35	0.40
1:A:141:ALA:HB2	1:G:107:LYS:NZ	2.36	0.40
1:A:190:HIS:CE1	1:A:192:ASP:H	2.39	0.40
1:A:246:ILE:HG23	1:A:248:LYS:N	2.36	0.40
1:C:47:ASP:O	1:C:51:GLY:HA2	2.21	0.40
1:C:127:THR:HA	1:C:145:SER:O	2.21	0.40
1:C:289:SER:HB3	1:C:320:ARG:HH11	1.86	0.40
2:D:21:LYS:HD2	2:D:21:LYS:H	1.86	0.40
2:D:30:ILE:N	2:D:72:LYS:O	2.51	0.40
2:D:168:ILE:H	2:D:168:ILE:HG13	1.51	0.40
2:D:192:ASP:HB3	2:D:195:ARG:HD2	2.03	0.40
2:D:323:ASP:O	2:D:327:ILE:HG13	2.20	0.40
1:E:7:GLY:HA2	3:E:401:NAD:N3A	2.36	0.40
1:E:43:LEU:HD23	1:E:43:LEU:HA	1.93	0.40
1:E:47:ASP:HB3	1:E:51:GLY:N	2.35	0.40
1:E:105:ALA:O	1:E:108:HIS:HB2	2.22	0.40
2:F:0:LYS:H2	2:F:26:ASP:HB2	1.85	0.40
2:F:1:LEU:HD11	2:F:332:TRP:CE3	2.56	0.40
2:F:159:LYS:O	2:F:163:GLN:HG3	2.21	0.40
1:G:107:LYS:HA	1:G:110:GLN:HB2	2.02	0.40
1:G:219:PRO:HA	1:G:222:LYS:CD	2.52	0.40
1:G:349:CYS:O	1:G:353:PRO:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:63:ALA:O	2:H:64:ILE:HD13	2.21	0.40
2:H:78:ASN:OD1	2:H:80:VAL:HG22	2.21	0.40
2:H:115:LYS:HA	2:H:142:THR:OG1	2.21	0.40
2:H:149:CYS:CA	2:H:152:ASN:HD22	2.34	0.40
2:H:257:ALA:O	2:H:261:GLU:HG3	2.22	0.40
1:I:139:HIS:HD2	1:I:332:TRP:HA	1.84	0.40
1:I:313:ASN:OD1	1:I:314:GLU:HG3	2.21	0.40
2:J:86:ASP:N	2:J:86:ASP:OD1	2.54	0.40
1:K:84:TRP:HB2	1:K:111:ALA:O	2.22	0.40
1:K:114:LYS:HB3	1:K:115:LYS:NZ	2.37	0.40
2:L:1:LEU:HG	2:L:3:VAL:HG23	2.04	0.40
2:L:41:SER:HG	2:L:42:HIS:H	1.69	0.40
2:L:96:THR:HA	3:L:401:NAD:O4B	2.21	0.40
2:L:165:PHE:HZ	2:L:254:GLU:HG2	1.86	0.40
1:O:10:ARG:HA	1:O:13:ARG:HD3	2.03	0.40
1:O:160:VAL:HG13	1:O:164:GLU:OE1	2.20	0.40
1:O:166:GLY:O	1:O:247:GLU:HG3	2.21	0.40
1:O:190:HIS:O	1:O:190:HIS:CG	2.74	0.40
1:O:268:LYS:C	1:O:270:VAL:H	2.25	0.40
2:P:20:ARG:HH21	2:P:319:GLN:NE2	2.20	0.40
1:Q:169:LYS:HG2	1:Q:224:LYS:HE3	2.03	0.40
1:Q:232:VAL:O	1:Q:234:THR:N	2.53	0.40
2:R:198:ALA:O	2:R:200:CYS:N	2.53	0.40
2:R:256:ASN:O	2:R:259:PHE:HB2	2.22	0.40
2:R:287:ASP:OD1	2:R:288:VAL:N	2.51	0.40
1:A:321:VAL:HA	1:A:324:LEU:HB2	2.02	0.40
2:B:3:VAL:CG2	2:B:91:LEU:HB3	2.48	0.40
2:B:30:ILE:HG22	2:B:31:ASN:H	1.86	0.40
2:B:321:VAL:O	2:B:325:ALA:N	2.52	0.40
1:C:32:ASP:N	1:C:74:VAL:O	2.45	0.40
1:C:64:PHE:O	1:C:71:ILE:N	2.53	0.40
1:C:175:THR:OG1	1:C:238:SER:HA	2.21	0.40
1:C:190:HIS:CD2	1:C:192:ASP:HB3	2.56	0.40
2:D:96:THR:HB	3:D:401:NAD:C5A	2.51	0.40
2:F:94:GLU:HB2	2:F:118:ILE:HD13	2.03	0.40
1:G:162:ASP:HB3	1:G:167:ILE:HD12	2.03	0.40
1:G:172:MET:SD	1:G:172:MET:N	2.95	0.40
1:G:192:ASP:CG	1:G:194:ARG:HB2	2.42	0.40
1:G:320:ARG:HA	1:G:320:ARG:HD3	1.95	0.40
2:H:192:ASP:OD2	2:H:194:ARG:HB2	2.22	0.40
1:I:182:GLN:HG2	1:I:199:ALA:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:193:LEU:CG	1:K:277:PRO:HG2	2.52	0.40
2:J:105:ALA:HA	2:J:108:HIS:HD2	1.86	0.40
2:J:168:ILE:H	2:J:168:ILE:HG13	1.71	0.40
1:K:197:ARG:HA	1:K:197:ARG:HD2	1.83	0.40
1:K:323:ASP:HA	1:K:326:ASP:CB	2.37	0.40
2:L:249:LYS:CD	2:L:302:ASP:HB2	2.49	0.40
1:O:91:ILE:HD13	1:O:325:ALA:HB1	2.02	0.40
1:O:107:LYS:O	1:O:111:ALA:N	2.49	0.40
1:O:283:PHE:O	1:O:284:ARG:NH2	2.51	0.40
2:P:94:GLU:HB2	2:P:118:ILE:HD13	2.03	0.40
2:P:130:VAL:HG21	2:P:320:ARG:HD3	2.03	0.40
1:Q:81:LYS:HZ2	1:Q:81:LYS:HG3	1.47	0.40
1:Q:117:ILE:HD13	1:Q:145:SER:HA	2.04	0.40
1:Q:194:ARG:NE	1:Q:204:VAL:HG22	2.36	0.40
1:Q:216:LEU:HA	1:Q:216:LEU:HD13	1.85	0.40
1:Q:259:PHE:HA	1:Q:262:ALA:HB3	2.03	0.40
2:R:139:HIS:HE1	2:R:332:TRP:HA	1.87	0.40
2:R:150:THR:HG1	2:R:151:THR:H	1.70	0.40
1:A:280:SER:N	1:C:202:ASN:OD1	2.54	0.40
1:A:354:ALA:HB2	3:G:401:NAD:N7A	2.36	0.40
2:B:176:HIS:CG	2:B:231:ARG:HG2	2.56	0.40
2:B:184:LEU:HD11	1:C:178:TYR:CD1	2.56	0.40
2:B:190:HIS:HB3	2:B:196:ALA:CB	2.51	0.40
2:B:268:LYS:HZ3	2:B:268:LYS:H	1.67	0.40
1:C:162:ASP:O	1:C:166:GLY:N	2.55	0.40
2:D:29:VAL:O	2:D:30:ILE:HD13	2.22	0.40
2:D:30:ILE:HB	2:D:73:VAL:HG23	2.03	0.40
1:E:37:VAL:HG23	1:E:61:ASN:O	2.20	0.40
2:F:104:GLY:O	2:F:108:HIS:N	2.47	0.40
2:F:202:ASN:HB3	2:H:279:VAL:HB	2.03	0.40
1:G:3:VAL:C	1:G:27:VAL:HA	2.42	0.40
1:G:76:ASN:OD1	1:G:77:ARG:N	2.55	0.40
2:H:45:LYS:NZ	2:H:55:ALA:H	2.20	0.40
2:H:264:ASP:O	2:H:268:LYS:HB2	2.21	0.40
1:I:197:ARG:HH22	2:L:48:SER:HA	1.86	0.40
1:I:281:VAL:HG21	2:J:48:SER:HA	2.03	0.40
2:J:15:PHE:CD2	2:J:322:VAL:HG22	2.56	0.40
2:J:29:VAL:HA	2:J:72:LYS:O	2.21	0.40
2:J:93:ILE:HD13	2:J:117:LEU:O	2.21	0.40
2:J:152:ASN:HD22	2:J:317:TYR:HD1	1.69	0.40
2:J:198:ALA:C	2:J:200:CYS:H	2.25	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:79:PRO:HB2	1:K:107:LYS:NZ	2.36	0.40
1:K:82:LEU:HA	1:K:83:PRO:HD3	1.79	0.40
1:K:83:PRO:CA	1:K:86:GLU:HB2	2.52	0.40
1:K:83:PRO:C	1:K:84:TRP:HE3	2.24	0.40
1:K:120:ALA:HA	3:K:401:NAD:O2D	2.22	0.40
1:K:172:MET:HE2	1:K:172:MET:HB3	1.93	0.40
1:K:332:TRP:CZ3	1:K:334:GLY:HA3	2.57	0.40
2:L:167:ILE:HG12	2:L:246:VAL:HG12	2.03	0.40
2:L:171:THR:O	2:L:243:VAL:N	2.42	0.40
1:O:20:ARG:HA	1:O:20:ARG:NE	2.36	0.40
1:O:62:GLU:O	1:O:73:VAL:HB	2.21	0.40
1:O:107:LYS:HA	1:O:110:GLN:CD	2.42	0.40
1:O:120:ALA:N	1:O:317:TYR:OH	2.55	0.40
1:O:156:PRO:HG2	1:O:271:LEU:HD23	2.03	0.40
1:O:212:LYS:O	1:O:216:LEU:HD23	2.21	0.40
2:P:39:GLN:O	2:P:43:LEU:HG	2.21	0.40
2:P:49:ILE:HG23	2:P:284:ARG:NH1	2.36	0.40
2:P:150:THR:HG1	2:P:151:THR:H	1.68	0.40
2:P:238:SER:O	2:P:311:TYR:N	2.50	0.40
1:Q:29:VAL:HB	1:Q:72:LYS:HB3	2.02	0.40
1:Q:287:ASP:O	1:Q:320:ARG:NH1	2.51	0.40
2:R:15:PHE:CZ	2:R:322:VAL:HG22	2.56	0.40
2:R:18:CYS:SG	2:R:318:SER:OG	2.78	0.40
2:R:45:LYS:NZ	2:R:55:ALA:O	2.50	0.40
2:R:320:ARG:NE	2:R:323:ASP:OD2	2.54	0.40
1:A:159:LYS:HE2	1:A:218:LEU:HD21	2.04	0.40
2:B:105:ALA:HA	2:B:108:HIS:HD2	1.87	0.40
2:B:322:VAL:O	2:B:325:ALA:HB3	2.22	0.40
1:C:45:LYS:O	1:C:52:THR:HA	2.22	0.40
1:C:204:VAL:HG12	1:C:206:THR:OG1	2.22	0.40
1:C:248:LYS:O	1:C:248(A):VAL:C	2.60	0.40
2:D:27:VAL:O	2:D:69:LYS:NZ	2.55	0.40
2:D:69:LYS:NZ	2:D:71:ILE:HG12	2.37	0.40
2:D:182:GLN:HA	2:D:195:ARG:HB3	2.03	0.40
2:D:192:ASP:CG	2:D:195:ARG:H	2.25	0.40
2:D:256:ASN:O	2:D:259:PHE:HB2	2.22	0.40
1:E:60:ILE:HG12	1:E:60(A):ASP:H	1.86	0.40
1:E:207:SER:HA	1:E:228:ILE:HG22	2.03	0.40
2:F:84:TRP:HB3	2:F:89:ILE:HG12	2.04	0.40
2:F:186:ASP:OD2	1:G:10:ARG:HD2	2.22	0.40
1:G:10:ARG:NH2	1:G:13:ARG:HB2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:77:ARG:H	1:G:77:ARG:NH1	2.18	0.40
2:H:169:LYS:HG2	2:H:224:LYS:HB2	2.04	0.40
1:I:46:TYR:HA	1:I:52:THR:HA	2.02	0.40
1:I:105:ALA:HA	1:I:108:HIS:CD2	2.56	0.40
1:I:128:TYR:HA	1:I:133:ASN:CG	2.42	0.40
1:I:272:ASP:HB2	1:I:288:PHE:CB	2.52	0.40
1:K:12:GLY:N	1:K:13:ARG:HH12	2.19	0.40
1:K:199:ALA:C	1:K:201:LEU:H	2.24	0.40
1:K:239:VAL:HG23	1:K:309:ALA:C	2.42	0.40
2:L:103:ASP:HB2	2:L:107:LYS:NZ	2.37	0.40

There are no symmetry-related clashes.

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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	366/451 (81%)	278 (76%)	85 (23%)	3 (1%)	19 60
1	C	366/451 (81%)	262 (72%)	100 (27%)	4 (1%)	14 51
1	E	366/451 (81%)	286 (78%)	71 (19%)	9 (2%)	5 32
1	G	366/451 (81%)	257 (70%)	104 (28%)	5 (1%)	11 46
1	I	366/451 (81%)	268 (73%)	94 (26%)	4 (1%)	14 51
1	K	366/451 (81%)	264 (72%)	100 (27%)	2 (0%)	29 69
1	O	366/451 (81%)	265 (72%)	94 (26%)	7 (2%)	8 38
1	Q	366/451 (81%)	273 (75%)	87 (24%)	6 (2%)	9 43
2	B	335/402 (83%)	263 (78%)	72 (22%)	0	100 100
2	D	335/402 (83%)	254 (76%)	80 (24%)	1 (0%)	41 76
2	F	335/402 (83%)	251 (75%)	82 (24%)	2 (1%)	25 65
2	H	335/402 (83%)	259 (77%)	76 (23%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	J	335/402 (83%)	263 (78%)	72 (22%)	0	100	100
2	L	335/402 (83%)	256 (76%)	78 (23%)	1 (0%)	41	76
2	P	335/402 (83%)	248 (74%)	86 (26%)	1 (0%)	41	76
2	R	335/402 (83%)	257 (77%)	77 (23%)	1 (0%)	41	76
All	All	5608/6824 (82%)	4204 (75%)	1358 (24%)	46 (1%)	24	60

All (46) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	O	18(A)	TRP
1	O	61	ASN
1	Q	60	ILE
1	Q	352	ASN
1	A	352	ASN
1	C	352	ASN
1	G	248(A)	VAL
1	G	343	ASP
1	I	344	PRO
1	I	352	ASN
1	K	344	PRO
1	K	353	PRO
1	C	248(A)	VAL
2	D	61	ASP
1	G	344	PRO
2	L	60	ALA
2	P	61	ASP
1	Q	249	GLY
1	E	33	SER
2	F	56	ASP
1	G	122	ALA
1	O	34	GLY
1	Q	33	SER
2	R	59	THR
1	A	60(A)	ASP
1	A	343	ASP
1	E	34	GLY
1	O	38	LYS
1	Q	34	GLY
1	Q	343	ASP
1	E	24	PRO
1	E	38	LYS

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Mol	Chain	Res	Type
1	E	356	GLU
1	G	124	ASP
1	I	60(A)	ASP
1	I	141	ALA
1	O	83	PRO
1	O	343	ASP
1	E	355	ASP
1	C	237	VAL
1	O	235	PRO
1	C	334	GLY
1	E	344	PRO
2	F	66	VAL
1	E	59	ILE
1	E	339	VAL

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	282/370 (76%)	228 (81%)	54 (19%)	1 8
1	C	282/370 (76%)	210 (74%)	72 (26%)	0 3
1	E	282/370 (76%)	212 (75%)	70 (25%)	0 4
1	G	282/370 (76%)	219 (78%)	63 (22%)	1 6
1	I	282/370 (76%)	224 (79%)	58 (21%)	1 7
1	K	282/370 (76%)	222 (79%)	60 (21%)	1 6
1	O	282/370 (76%)	211 (75%)	71 (25%)	0 3
1	Q	282/370 (76%)	226 (80%)	56 (20%)	1 8
2	B	279/332 (84%)	217 (78%)	62 (22%)	1 6
2	D	279/332 (84%)	223 (80%)	56 (20%)	1 7
2	F	279/332 (84%)	222 (80%)	57 (20%)	1 7
2	H	279/332 (84%)	218 (78%)	61 (22%)	1 6
2	J	279/332 (84%)	221 (79%)	58 (21%)	1 7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	L	279/332 (84%)	218 (78%)	61 (22%)	1	6
2	P	279/332 (84%)	220 (79%)	59 (21%)	1	6
2	R	279/332 (84%)	214 (77%)	65 (23%)	1	4
All	All	4488/5616 (80%)	3505 (78%)	983 (22%)	3	6

All (983) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	O	0	LYS
1	O	6	ASN
1	O	10	ARG
1	O	13	ARG
1	O	14	ASN
1	O	21	LYS
1	O	25	LEU
1	O	41	THR
1	O	42	HIS
1	O	46	TYR
1	O	54	LYS
1	O	56	ASP
1	O	58	LYS
1	O	59	ILE
1	O	60	ILE
1	O	60(A)	ASP
1	O	61	ASN
1	O	62	GLU
1	O	64	PHE
1	O	66	ILE
1	O	67	ASP
1	O	72	LYS
1	O	74	VAL
1	O	78	ASP
1	O	81	LYS
1	O	92	VAL
1	O	98	VAL
1	O	114	LYS
1	O	115	LYS
1	O	117	ILE
1	O	119	THR
1	O	122(A)	LYS
1	O	127	THR

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Mol	Chain	Res	Type
1	O	134	GLU
1	O	136	ASP
1	O	142	ASN
1	O	144	ILE
1	O	146	ASN
1	O	148	SER
1	O	153	CYS
1	O	154	LEU
1	O	164	GLU
1	O	169	LYS
1	O	172	MET
1	O	173	THR
1	O	182	GLN
1	O	191	ARG
1	O	192	ASP
1	O	201	LEU
1	O	212	LYS
1	O	214	VAL
1	O	216	LEU
1	O	218	LEU
1	O	234	THR
1	O	239	VAL
1	O	242	LEU
1	O	256	ASN
1	O	261	LYS
1	O	282	ASP
1	O	284	ARG
1	O	287	ASP
1	O	289	SER
1	O	293	ASP
1	O	308	VAL
1	O	312	ASP
1	O	313	ASN
1	O	315	TRP
1	O	317	TYR
1	O	319	GLN
1	O	323	ASP
1	O	326	ASP
2	P	0	LYS
2	P	5	ILE
2	P	11	ILE
2	P	13	ARG

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Mol	Chain	Res	Type
2	P	15	PHE
2	P	21	LYS
2	P	23	SER
2	P	25	LEU
2	P	29	VAL
2	P	37	VAL
2	P	38	LYS
2	P	44	LEU
2	P	53	PHE
2	P	54	ASP
2	P	58	LYS
2	P	65	SER
2	P	72	LYS
2	P	77	ARG
2	P	80	VAL
2	P	96	THR
2	P	98	VAL
2	P	103	ASP
2	P	122(A)	LYS
2	P	127	THR
2	P	133	ASN
2	P	135	GLU
2	P	137	TYR
2	P	142	THR
2	P	151	THR
2	P	153	CYS
2	P	154	LEU
2	P	159	LYS
2	P	172	MET
2	P	185	LEU
2	P	186	ASP
2	P	191	ARG
2	P	192	ASP
2	P	201	LEU
2	P	212	LYS
2	P	214	VAL
2	P	220	ASN
2	P	225	LEU
2	P	234	THR
2	P	239	VAL
2	P	240	VAL
2	P	244	VAL

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Mol	Chain	Res	Type
2	P	250	THR
2	P	259	PHE
2	P	279	VAL
2	P	280	SER
2	P	281	ILE
2	P	282	ASP
2	P	286	THR
2	P	288	VAL
2	P	289	SER
2	P	291	THR
2	P	294	SER
2	P	302	ASP
2	P	307	VAL
1	Q	0	LYS
1	Q	8	PHE
1	Q	10	ARG
1	Q	13	ARG
1	Q	14	ASN
1	Q	15	PHE
1	Q	39	SER
1	Q	54	LYS
1	Q	56	ASP
1	Q	62	GLU
1	Q	78	ASP
1	Q	81	LYS
1	Q	110	GLN
1	Q	114	LYS
1	Q	117	ILE
1	Q	119	THR
1	Q	125	ILE
1	Q	128	TYR
1	Q	135	LYS
1	Q	137	TYR
1	Q	139(A)	ASP
1	Q	148	SER
1	Q	152	ASN
1	Q	153	CYS
1	Q	161	LEU
1	Q	167	ILE
1	Q	168	VAL
1	Q	172	MET
1	Q	173	THR

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Mol	Chain	Res	Type
1	Q	182	GLN
1	Q	183	ARG
1	Q	185	LEU
1	Q	186	ASP
1	Q	193	LEU
1	Q	195	ARG
1	Q	203	ILE
1	Q	208	THR
1	Q	212	LYS
1	Q	220	GLN
1	Q	230	LEU
1	Q	234	THR
1	Q	239	VAL
1	Q	244	VAL
1	Q	247	GLU
1	Q	248	LYS
1	Q	260	ARG
1	Q	261	LYS
1	Q	279	VAL
1	Q	282	ASP
1	Q	293	ASP
1	Q	305	VAL
1	Q	308	VAL
1	Q	317	TYR
1	Q	322	VAL
1	Q	327	LEU
1	Q	349	CYS
2	R	0	LYS
2	R	10	ARG
2	R	13	ARG
2	R	15	PHE
2	R	18(B)	HIS
2	R	21	LYS
2	R	37	VAL
2	R	43	LEU
2	R	53	PHE
2	R	56	ASP
2	R	57	VAL
2	R	58	LYS
2	R	59	THR
2	R	64	ILE
2	R	65	SER

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Mol	Chain	Res	Type
2	R	77	ARG
2	R	80	VAL
2	R	86	ASP
2	R	90	ASP
2	R	94	GLU
2	R	98	VAL
2	R	100	VAL
2	R	103	ASP
2	R	110	GLN
2	R	118	ILE
2	R	119	THR
2	R	127	THR
2	R	139	HIS
2	R	141	ASP
2	R	142	THR
2	R	143	ILE
2	R	152	ASN
2	R	159	LYS
2	R	172	MET
2	R	174	THR
2	R	178	TYR
2	R	179	THR
2	R	182	GLN
2	R	185	LEU
2	R	186	ASP
2	R	191	ARG
2	R	193	LEU
2	R	197	ARG
2	R	200	CYS
2	R	201	LEU
2	R	208	THR
2	R	214	VAL
2	R	228	ILE
2	R	234	THR
2	R	239	VAL
2	R	240	VAL
2	R	244	VAL
2	R	246	VAL
2	R	250	THR
2	R	255	VAL
2	R	264	ASP
2	R	265	ASN

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Mol	Chain	Res	Type
2	R	282	ASP
2	R	294	SER
2	R	302	ASP
2	R	307	VAL
2	R	314	GLU
2	R	315	TRP
2	R	317	TYR
2	R	330	ASN
1	A	0	LYS
1	A	1	LEU
1	A	8	PHE
1	A	21	LYS
1	A	22	ASP
1	A	25	LEU
1	A	26	ASP
1	A	38	LYS
1	A	39	SER
1	A	42	HIS
1	A	52	THR
1	A	54	LYS
1	A	60(A)	ASP
1	A	74	VAL
1	A	78	ASP
1	A	98	VAL
1	A	100	VAL
1	A	114	LYS
1	A	119	THR
1	A	125	ILE
1	A	128	TYR
1	A	133	ASN
1	A	135	LYS
1	A	136	ASP
1	A	139(A)	ASP
1	A	152	ASN
1	A	157	PHE
1	A	171	THR
1	A	179	THR
1	A	191	ARG
1	A	195	ARG
1	A	214	VAL
1	A	217	VAL
1	A	218	LEU

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Mol	Chain	Res	Type
1	A	221	LEU
1	A	222	LYS
1	A	234	THR
1	A	256	ASN
1	A	273	VAL
1	A	282	ASP
1	A	288	PHE
1	A	289	SER
1	A	290	SER
1	A	293	ASP
1	A	299	VAL
1	A	300	MET
1	A	305	VAL
1	A	307	VAL
1	A	312	ASP
1	A	317	TYR
1	A	323	ASP
1	A	327	LEU
1	A	330	ASN
1	A	332	TRP
2	B	0	LYS
2	B	2	LYS
2	B	13	ARG
2	B	21	LYS
2	B	25	LEU
2	B	26	ASP
2	B	33	THR
2	B	38	LYS
2	B	53	PHE
2	B	54	ASP
2	B	56	ASP
2	B	57	VAL
2	B	58	LYS
2	B	59	THR
2	B	67	ASP
2	B	70	VAL
2	B	81	ASN
2	B	90	ASP
2	B	94	GLU
2	B	98	VAL
2	B	103	ASP
2	B	115	LYS

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Mol	Chain	Res	Type
2	B	125	ILE
2	B	135	GLU
2	B	137	TYR
2	B	138	THR
2	B	141	ASP
2	B	142	THR
2	B	151	THR
2	B	159	LYS
2	B	164	LYS
2	B	172	MET
2	B	178	TYR
2	B	181	ASP
2	B	182	GLN
2	B	185	LEU
2	B	186	ASP
2	B	191	ARG
2	B	201	LEU
2	B	208	THR
2	B	228	ILE
2	B	234	THR
2	B	240	VAL
2	B	244	VAL
2	B	250	THR
2	B	264	ASP
2	B	265	ASN
2	B	271	LEU
2	B	274	CYS
2	B	278	LEU
2	B	282	ASP
2	B	283	PHE
2	B	289	SER
2	B	293	ASP
2	B	294	SER
2	B	302	ASP
2	B	303	ASP
2	B	304	MET
2	B	313	ASN
2	B	320	ARG
2	B	331	LYS
2	B	332	TRP
1	C	0	LYS
1	C	1	LEU

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Mol	Chain	Res	Type
1	C	5	ILE
1	C	6	ASN
1	C	8	PHE
1	C	13	ARG
1	C	14	ASN
1	C	18(A)	TRP
1	C	20	ARG
1	C	21	LYS
1	C	23	SER
1	C	26	ASP
1	C	44	LEU
1	C	46	TYR
1	C	53	PHE
1	C	56	ASP
1	C	67	ASP
1	C	78	ASP
1	C	84	TRP
1	C	87	LEU
1	C	109	ILE
1	C	119	THR
1	C	122(A)	LYS
1	C	127	THR
1	C	129	VAL
1	C	133	ASN
1	C	135	LYS
1	C	136	ASP
1	C	137	TYR
1	C	142	ASN
1	C	149	CYS
1	C	150	THR
1	C	158	VAL
1	C	160	VAL
1	C	164	GLU
1	C	176	HIS
1	C	186	ASP
1	C	191	ARG
1	C	192	ASP
1	C	193	LEU
1	C	202	ASN
1	C	203	ILE
1	C	206	THR
1	C	208	THR

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Mol	Chain	Res	Type
1	C	217	VAL
1	C	220	GLN
1	C	232	VAL
1	C	234	THR
1	C	238	SER
1	C	239	VAL
1	C	242	LEU
1	C	244	VAL
1	C	247	GLU
1	C	251	THR
1	C	253	GLU
1	C	254	ASP
1	C	256	ASN
1	C	260	ARG
1	C	268	LYS
1	C	271	LEU
1	C	275	ASP
1	C	282	ASP
1	C	291	THR
1	C	300	MET
1	C	306	LYS
1	C	308	VAL
1	C	312	ASP
1	C	313	ASN
1	C	317	TYR
1	C	327	LEU
1	C	332	TRP
1	C	349	CYS
2	D	0	LYS
2	D	2	LYS
2	D	13	ARG
2	D	29	VAL
2	D	37	VAL
2	D	38	LYS
2	D	45	LYS
2	D	58	LYS
2	D	59	THR
2	D	67	ASP
2	D	70	VAL
2	D	80	VAL
2	D	86	ASP
2	D	87	MET

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Mol	Chain	Res	Type
2	D	96	THR
2	D	98	VAL
2	D	102	ARG
2	D	103	ASP
2	D	110	GLN
2	D	127	THR
2	D	135	GLU
2	D	137	TYR
2	D	142	THR
2	D	144	ILE
2	D	151	THR
2	D	157	PHE
2	D	159	LYS
2	D	164	LYS
2	D	171	THR
2	D	172	MET
2	D	185	LEU
2	D	186	ASP
2	D	191	ARG
2	D	201	LEU
2	D	208	THR
2	D	212	LYS
2	D	224	LYS
2	D	225	LEU
2	D	228	ILE
2	D	234	THR
2	D	239	VAL
2	D	240	VAL
2	D	244	VAL
2	D	248	LYS
2	D	250	THR
2	D	271	LEU
2	D	273	VAL
2	D	279	VAL
2	D	281	ILE
2	D	288	VAL
2	D	289	SER
2	D	291	THR
2	D	294	SER
2	D	302	ASP
2	D	307	VAL
2	D	313	ASN

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Mol	Chain	Res	Type
1	E	0	LYS
1	E	1	LEU
1	E	8	PHE
1	E	11	ILE
1	E	14	ASN
1	E	15	PHE
1	E	17	ARG
1	E	18	CYS
1	E	20	ARG
1	E	21	LYS
1	E	22	ASP
1	E	25	LEU
1	E	46	TYR
1	E	56	ASP
1	E	58	LYS
1	E	60	ILE
1	E	62	GLU
1	E	67	ASP
1	E	72	LYS
1	E	73	VAL
1	E	78	ASP
1	E	81	LYS
1	E	90	ASP
1	E	93	ILE
1	E	96	THR
1	E	100	VAL
1	E	114	LYS
1	E	118	ILE
1	E	122(A)	LYS
1	E	125	ILE
1	E	127	THR
1	E	132	VAL
1	E	135	LYS
1	E	136	ASP
1	E	139(A)	ASP
1	E	144	ILE
1	E	154	LEU
1	E	158	VAL
1	E	163	GLU
1	E	164	GLU
1	E	173	THR
1	E	179	THR

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Mol	Chain	Res	Type
1	E	181	ASP
1	E	185	LEU
1	E	192	ASP
1	E	201	LEU
1	E	202	ASN
1	E	203	ILE
1	E	212	LYS
1	E	214	VAL
1	E	218	LEU
1	E	220	GLN
1	E	232	VAL
1	E	234	THR
1	E	236	ASN
1	E	237	VAL
1	E	240	VAL
1	E	261	LYS
1	E	278	LEU
1	E	284	ARG
1	E	288	PHE
1	E	290	SER
1	E	305	VAL
1	E	307	VAL
1	E	308	VAL
1	E	310	TRP
1	E	312	ASP
1	E	314	GLU
1	E	321	VAL
1	E	332	TRP
2	F	0	LYS
2	F	5	ILE
2	F	13	ARG
2	F	15	PHE
2	F	21	LYS
2	F	25	LEU
2	F	29	VAL
2	F	38	LYS
2	F	53	PHE
2	F	54	ASP
2	F	58	LYS
2	F	59	THR
2	F	65	SER
2	F	67	ASP

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Mol	Chain	Res	Type
2	F	70	VAL
2	F	72	LYS
2	F	77	ARG
2	F	80	VAL
2	F	96	THR
2	F	98	VAL
2	F	103	ASP
2	F	122(A)	LYS
2	F	127	THR
2	F	133	ASN
2	F	135	GLU
2	F	137	TYR
2	F	142	THR
2	F	151	THR
2	F	153	CYS
2	F	154	LEU
2	F	159	LYS
2	F	172	MET
2	F	185	LEU
2	F	191	ARG
2	F	192	ASP
2	F	201	LEU
2	F	208	THR
2	F	212	LYS
2	F	214	VAL
2	F	220	ASN
2	F	225	LEU
2	F	234	THR
2	F	239	VAL
2	F	240	VAL
2	F	244	VAL
2	F	250	THR
2	F	259	PHE
2	F	280	SER
2	F	281	ILE
2	F	282	ASP
2	F	286	THR
2	F	288	VAL
2	F	289	SER
2	F	291	THR
2	F	294	SER
2	F	302	ASP

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Mol	Chain	Res	Type
2	F	307	VAL
1	G	0	LYS
1	G	6	ASN
1	G	10	ARG
1	G	13	ARG
1	G	14	ASN
1	G	15	PHE
1	G	25	LEU
1	G	26	ASP
1	G	42	HIS
1	G	45	LYS
1	G	47	ASP
1	G	54	LYS
1	G	57	VAL
1	G	74	VAL
1	G	77	ARG
1	G	78	ASP
1	G	90	ASP
1	G	91	ILE
1	G	110	GLN
1	G	114	LYS
1	G	117	ILE
1	G	119	THR
1	G	122(A)	LYS
1	G	128	TYR
1	G	135	LYS
1	G	136	ASP
1	G	137	TYR
1	G	139	HIS
1	G	139(A)	ASP
1	G	143	ILE
1	G	144	ILE
1	G	148	SER
1	G	152	ASN
1	G	153	CYS
1	G	154	LEU
1	G	160	VAL
1	G	176	HIS
1	G	177	SER
1	G	178	TYR
1	G	183	ARG
1	G	186	ASP

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Mol	Chain	Res	Type
1	G	190	HIS
1	G	194	ARG
1	G	201	LEU
1	G	204	VAL
1	G	208	THR
1	G	212	LYS
1	G	224	LYS
1	G	230	LEU
1	G	234	THR
1	G	239	VAL
1	G	244	VAL
1	G	247	GLU
1	G	248(A)	VAL
1	G	260	ARG
1	G	267	LEU
1	G	273	VAL
1	G	280	SER
1	G	282	ASP
1	G	293	ASP
1	G	317	TYR
1	G	320	ARG
1	G	322	VAL
2	H	0	LYS
2	H	13	ARG
2	H	15	PHE
2	H	18(B)	HIS
2	H	21	LYS
2	H	38	LYS
2	H	43	LEU
2	H	53	PHE
2	H	56	ASP
2	H	58	LYS
2	H	59	THR
2	H	70	VAL
2	H	77	ARG
2	H	80	VAL
2	H	86	ASP
2	H	90	ASP
2	H	94	GLU
2	H	98	VAL
2	H	100	VAL
2	H	103	ASP

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Mol	Chain	Res	Type
2	H	110	GLN
2	H	118	ILE
2	H	119	THR
2	H	127	THR
2	H	139	HIS
2	H	141	ASP
2	H	142	THR
2	H	143	ILE
2	H	152	ASN
2	H	159	LYS
2	H	172	MET
2	H	174	THR
2	H	178	TYR
2	H	179	THR
2	H	182	GLN
2	H	185	LEU
2	H	191	ARG
2	H	193	LEU
2	H	197	ARG
2	H	200	CYS
2	H	201	LEU
2	H	208	THR
2	H	214	VAL
2	H	228	ILE
2	H	234	THR
2	H	239	VAL
2	H	240	VAL
2	H	244	VAL
2	H	246	VAL
2	H	250	THR
2	H	255	VAL
2	H	264	ASP
2	H	265	ASN
2	H	282	ASP
2	H	294	SER
2	H	302	ASP
2	H	307	VAL
2	H	314	GLU
2	H	315	TRP
2	H	317	TYR
2	H	330	ASN
1	I	0	LYS

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Mol	Chain	Res	Type
1	I	1	LEU
1	I	5	ILE
1	I	8	PHE
1	I	10	ARG
1	I	13	ARG
1	I	15	PHE
1	I	16	LEU
1	I	21	LYS
1	I	25	LEU
1	I	26	ASP
1	I	32	ASP
1	I	38	LYS
1	I	53	PHE
1	I	56	ASP
1	I	57	VAL
1	I	59	ILE
1	I	60(A)	ASP
1	I	61	ASN
1	I	74	VAL
1	I	78	ASP
1	I	81	LYS
1	I	86	GLU
1	I	92	VAL
1	I	114	LYS
1	I	115	LYS
1	I	119	THR
1	I	135	LYS
1	I	136	ASP
1	I	139(A)	ASP
1	I	142	ASN
1	I	144	ILE
1	I	157	PHE
1	I	171	THR
1	I	173	THR
1	I	181	ASP
1	I	184	LEU
1	I	190	HIS
1	I	191	ARG
1	I	206	THR
1	I	214	VAL
1	I	221	LEU
1	I	234	THR

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Mol	Chain	Res	Type
1	I	239	VAL
1	I	240	VAL
1	I	256	ASN
1	I	268	LYS
1	I	271	LEU
1	I	279	VAL
1	I	284	ARG
1	I	287	ASP
1	I	288	PHE
1	I	291	THR
1	I	293	ASP
1	I	307	VAL
1	I	312	ASP
1	I	317	TYR
1	I	323	ASP
2	J	0	LYS
2	J	2	LYS
2	J	10	ARG
2	J	13	ARG
2	J	21	LYS
2	J	25	LEU
2	J	26	ASP
2	J	38	LYS
2	J	42	HIS
2	J	53	PHE
2	J	54	ASP
2	J	56	ASP
2	J	57	VAL
2	J	58	LYS
2	J	59	THR
2	J	67	ASP
2	J	70	VAL
2	J	81	ASN
2	J	90	ASP
2	J	94	GLU
2	J	98	VAL
2	J	103	ASP
2	J	115	LYS
2	J	125	ILE
2	J	135	GLU
2	J	137	TYR
2	J	138	THR

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Mol	Chain	Res	Type
2	J	141	ASP
2	J	142	THR
2	J	151	THR
2	J	159	LYS
2	J	164	LYS
2	J	172	MET
2	J	181	ASP
2	J	182	GLN
2	J	191	ARG
2	J	201	LEU
2	J	208	THR
2	J	228	ILE
2	J	234	THR
2	J	240	VAL
2	J	244	VAL
2	J	250	THR
2	J	264	ASP
2	J	265	ASN
2	J	271	LEU
2	J	276	GLU
2	J	278	LEU
2	J	280	SER
2	J	282	ASP
2	J	289	SER
2	J	293	ASP
2	J	294	SER
2	J	302	ASP
2	J	303	ASP
2	J	320	ARG
2	J	331	LYS
2	J	332	TRP
1	K	0	LYS
1	K	5	ILE
1	K	6	ASN
1	K	8	PHE
1	K	13	ARG
1	K	14	ASN
1	K	16	LEU
1	K	25	LEU
1	K	26	ASP
1	K	44	LEU
1	K	46	TYR

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Mol	Chain	Res	Type
1	K	50	LEU
1	K	53	PHE
1	K	58	LYS
1	K	65	SER
1	K	73	VAL
1	K	78	ASP
1	K	84	TRP
1	K	87	LEU
1	K	90	ASP
1	K	96	THR
1	K	100	VAL
1	K	107	LYS
1	K	109	ILE
1	K	119	THR
1	K	124	ASP
1	K	129	VAL
1	K	136	ASP
1	K	137	TYR
1	K	139(A)	ASP
1	K	142	ASN
1	K	148	SER
1	K	149	CYS
1	K	165	LEU
1	K	172	MET
1	K	192	ASP
1	K	203	ILE
1	K	204	VAL
1	K	206	THR
1	K	220	GLN
1	K	221	LEU
1	K	231	ARG
1	K	234	THR
1	K	242	LEU
1	K	244	VAL
1	K	247	GLU
1	K	251	THR
1	K	261	LYS
1	K	276	ILE
1	K	278	LEU
1	K	281	VAL
1	K	282	ASP
1	K	289	SER

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Mol	Chain	Res	Type
1	K	291	THR
1	K	308	VAL
1	K	312	ASP
1	K	313	ASN
1	K	317	TYR
1	K	320	ARG
1	K	323	ASP
2	L	0	LYS
2	L	2	LYS
2	L	13	ARG
2	L	29	VAL
2	L	33	THR
2	L	38	LYS
2	L	45	LYS
2	L	57	VAL
2	L	58	LYS
2	L	59	THR
2	L	67	ASP
2	L	70	VAL
2	L	80	VAL
2	L	86	ASP
2	L	87	MET
2	L	96	THR
2	L	98	VAL
2	L	102	ARG
2	L	103	ASP
2	L	110	GLN
2	L	127	THR
2	L	135	GLU
2	L	137	TYR
2	L	142	THR
2	L	144	ILE
2	L	151	THR
2	L	157	PHE
2	L	159	LYS
2	L	164	LYS
2	L	171	THR
2	L	172	MET
2	L	176	HIS
2	L	179	THR
2	L	182	GLN
2	L	191	ARG

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Mol	Chain	Res	Type
2	L	201	LEU
2	L	208	THR
2	L	212	LYS
2	L	217	VAL
2	L	222	LYS
2	L	224	LYS
2	L	225	LEU
2	L	228	ILE
2	L	234	THR
2	L	239	VAL
2	L	240	VAL
2	L	244	VAL
2	L	248	LYS
2	L	250	THR
2	L	261	GLU
2	L	271	LEU
2	L	273	VAL
2	L	279	VAL
2	L	281	ILE
2	L	288	VAL
2	L	289	SER
2	L	291	THR
2	L	294	SER
2	L	302	ASP
2	L	307	VAL
2	L	313	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (98) such sidechains are listed below:

Mol	Chain	Res	Type
1	O	6	ASN
1	O	14	ASN
1	O	42	HIS
1	O	61	ASN
1	O	176	HIS
1	O	226	ASN
1	O	236	ASN
1	O	256	ASN
2	P	18(B)	HIS
2	P	78	ASN
2	P	81	ASN
2	P	108	HIS

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Mol	Chain	Res	Type
2	P	146	ASN
2	P	202	ASN
2	P	256	ASN
2	P	319	GLN
2	P	330	ASN
1	Q	6	ASN
1	Q	14	ASN
1	Q	18(B)	HIS
1	Q	110	GLN
1	Q	176	HIS
1	Q	257	ASN
1	Q	319	GLN
2	R	81	ASN
2	R	182	GLN
2	R	202	ASN
1	A	61	ASN
1	A	202	ASN
1	A	226	ASN
1	A	319	GLN
2	B	39	GLN
2	B	152	ASN
2	B	190	HIS
2	B	202	ASN
2	B	220	ASN
2	B	256	ASN
2	B	319	GLN
1	C	6	ASN
1	C	14	ASN
1	C	142	ASN
1	C	146	ASN
1	C	152	ASN
1	C	257	ASN
2	D	110	GLN
2	D	190	HIS
2	D	202	ASN
2	D	220	ASN
2	D	245	GLN
2	D	319	GLN
2	D	330	ASN
1	E	139	HIS
1	E	176	HIS
1	E	256	ASN

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Mol	Chain	Res	Type
1	E	330	ASN
2	F	78	ASN
2	F	81	ASN
2	F	108	HIS
2	F	146	ASN
2	F	190	HIS
2	F	202	ASN
2	F	256	ASN
2	F	319	GLN
2	F	330	ASN
1	G	6	ASN
1	G	18(B)	HIS
1	G	142	ASN
1	G	257	ASN
1	G	330	ASN
2	H	81	ASN
2	H	202	ASN
1	I	14	ASN
1	I	61	ASN
1	I	152	ASN
1	I	220	GLN
1	I	226	ASN
1	I	313	ASN
1	I	319	GLN
2	J	152	ASN
2	J	202	ASN
2	J	220	ASN
2	J	256	ASN
2	J	319	GLN
1	K	6	ASN
1	K	14	ASN
1	K	108	HIS
1	K	110	GLN
1	K	146	ASN
1	K	152	ASN
1	K	176	HIS
1	K	257	ASN
2	L	39	GLN
2	L	110	GLN
2	L	202	ASN
2	L	220	ASN
2	L	245	GLN

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Mol	Chain	Res	Type
2	L	319	GLN
2	L	330	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

16 ligands 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
3	NAD	P	401	-	42,48,48	0.64	1 (2%)	50,73,73	0.75	2 (4%)
3	NAD	J	401	-	42,48,48	0.63	1 (2%)	50,73,73	0.78	3 (6%)
3	NAD	R	401	-	42,48,48	0.64	1 (2%)	50,73,73	0.83	4 (8%)
3	NAD	O	401	-	42,48,48	0.67	1 (2%)	50,73,73	0.69	2 (4%)
3	NAD	C	401	-	42,48,48	3.82	15 (35%)	50,73,73	2.33	10 (20%)
3	NAD	E	401	-	42,48,48	3.80	16 (38%)	50,73,73	2.34	10 (20%)
3	NAD	B	401	-	42,48,48	3.85	18 (42%)	50,73,73	2.29	9 (18%)
3	NAD	G	401	-	42,48,48	3.85	17 (40%)	50,73,73	2.15	7 (14%)
3	NAD	Q	401	-	42,48,48	3.84	17 (40%)	50,73,73	2.31	9 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	NAD	H	401	-	42,48,48	3.84	17 (40%)	50,73,73	2.24	7 (14%)
3	NAD	I	401	-	42,48,48	0.65	1 (2%)	50,73,73	0.75	2 (4%)
3	NAD	K	401	-	42,48,48	0.67	1 (2%)	50,73,73	0.92	4 (8%)
3	NAD	D	401	-	42,48,48	3.88	18 (42%)	50,73,73	2.28	8 (16%)
3	NAD	F	401	-	42,48,48	3.86	18 (42%)	50,73,73	2.28	8 (16%)
3	NAD	L	401	-	42,48,48	3.88	19 (45%)	50,73,73	2.28	7 (14%)
3	NAD	A	401	-	42,48,48	0.65	0	50,73,73	0.81	3 (6%)

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
3	NAD	P	401	-	-	14/26/62/62	0/5/5/5
3	NAD	J	401	-	-	9/26/62/62	0/5/5/5
3	NAD	R	401	-	-	15/26/62/62	0/5/5/5
3	NAD	O	401	-	-	15/26/62/62	0/5/5/5
3	NAD	C	401	-	-	11/26/62/62	0/5/5/5
3	NAD	E	401	-	-	10/26/62/62	0/5/5/5
3	NAD	B	401	-	-	12/26/62/62	0/5/5/5
3	NAD	G	401	-	-	12/26/62/62	0/5/5/5
3	NAD	Q	401	-	-	9/26/62/62	0/5/5/5
3	NAD	H	401	-	-	13/26/62/62	0/5/5/5
3	NAD	I	401	-	-	13/26/62/62	0/5/5/5
3	NAD	K	401	-	-	14/26/62/62	0/5/5/5
3	NAD	D	401	-	-	12/26/62/62	0/5/5/5
3	NAD	F	401	-	-	12/26/62/62	0/5/5/5
3	NAD	L	401	-	-	12/26/62/62	0/5/5/5
3	NAD	A	401	-	-	15/26/62/62	0/5/5/5

All (161) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	401	NAD	O4D-C1D	-10.40	1.26	1.41
3	L	401	NAD	O4D-C1D	-10.39	1.26	1.41
3	B	401	NAD	O4D-C1D	-10.20	1.26	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	F	401	NAD	O4D-C1D	-10.19	1.26	1.41
3	H	401	NAD	O4D-C1D	-10.05	1.27	1.41
3	G	401	NAD	O4D-C1D	-10.02	1.27	1.41
3	Q	401	NAD	O4D-C1D	-9.98	1.27	1.41
3	C	401	NAD	O4D-C1D	-9.88	1.27	1.41
3	E	401	NAD	O4D-C1D	-9.67	1.27	1.41
3	E	401	NAD	C3B-C4B	-9.47	1.28	1.53
3	G	401	NAD	C3B-C4B	-9.38	1.29	1.53
3	L	401	NAD	C3B-C4B	-9.35	1.29	1.53
3	D	401	NAD	C3B-C4B	-9.33	1.29	1.53
3	H	401	NAD	C3B-C4B	-9.26	1.29	1.53
3	B	401	NAD	C3B-C4B	-9.24	1.29	1.53
3	Q	401	NAD	C3B-C4B	-9.14	1.29	1.53
3	C	401	NAD	C3B-C4B	-9.11	1.29	1.53
3	F	401	NAD	C3B-C4B	-9.06	1.29	1.53
3	D	401	NAD	C3D-C4D	-8.67	1.30	1.53
3	B	401	NAD	C3D-C4D	-8.64	1.30	1.53
3	L	401	NAD	C3D-C4D	-8.64	1.30	1.53
3	E	401	NAD	C3D-C4D	-8.60	1.31	1.53
3	C	401	NAD	C3D-C4D	-8.60	1.31	1.53
3	C	401	NAD	C7N-N7N	8.60	1.49	1.33
3	F	401	NAD	C3D-C4D	-8.56	1.31	1.53
3	Q	401	NAD	C7N-N7N	8.52	1.49	1.33
3	H	401	NAD	C7N-N7N	8.44	1.49	1.33
3	G	401	NAD	C3D-C4D	-8.44	1.31	1.53
3	G	401	NAD	C7N-N7N	8.43	1.49	1.33
3	F	401	NAD	C7N-N7N	8.40	1.49	1.33
3	Q	401	NAD	C3D-C4D	-8.37	1.31	1.53
3	E	401	NAD	C7N-N7N	8.37	1.48	1.33
3	B	401	NAD	C7N-N7N	8.35	1.48	1.33
3	H	401	NAD	C3D-C4D	-8.29	1.31	1.53
3	L	401	NAD	C7N-N7N	8.28	1.48	1.33
3	D	401	NAD	C7N-N7N	8.26	1.48	1.33
3	H	401	NAD	O4D-C4D	7.53	1.61	1.45
3	B	401	NAD	O4B-C4B	7.51	1.61	1.45
3	Q	401	NAD	O4D-C4D	7.50	1.61	1.45
3	H	401	NAD	O4B-C4B	7.49	1.61	1.45
3	F	401	NAD	O4B-C4B	7.48	1.61	1.45
3	C	401	NAD	O4D-C4D	7.47	1.61	1.45
3	G	401	NAD	O4D-C4D	7.46	1.61	1.45
3	E	401	NAD	O4B-C4B	7.40	1.61	1.45
3	L	401	NAD	O4D-C4D	7.38	1.61	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	401	NAD	O4B-C4B	7.37	1.61	1.45
3	B	401	NAD	O4D-C4D	7.37	1.61	1.45
3	L	401	NAD	O4B-C4B	7.36	1.61	1.45
3	G	401	NAD	O4B-C4B	7.36	1.61	1.45
3	F	401	NAD	O4D-C4D	7.35	1.61	1.45
3	Q	401	NAD	O4B-C4B	7.34	1.61	1.45
3	D	401	NAD	O4D-C4D	7.34	1.61	1.45
3	C	401	NAD	O4B-C4B	7.31	1.61	1.45
3	E	401	NAD	O4D-C4D	7.27	1.61	1.45
3	F	401	NAD	O4B-C1B	-6.94	1.31	1.41
3	C	401	NAD	O4B-C1B	-6.93	1.31	1.41
3	Q	401	NAD	O4B-C1B	-6.92	1.31	1.41
3	L	401	NAD	O4B-C1B	-6.74	1.31	1.41
3	G	401	NAD	O4B-C1B	-6.68	1.31	1.41
3	H	401	NAD	O4B-C1B	-6.67	1.31	1.41
3	E	401	NAD	O4B-C1B	-6.63	1.31	1.41
3	D	401	NAD	O4B-C1B	-6.63	1.31	1.41
3	B	401	NAD	O4B-C1B	-6.62	1.31	1.41
3	D	401	NAD	C3N-C7N	4.82	1.57	1.50
3	B	401	NAD	C3N-C7N	4.73	1.57	1.50
3	L	401	NAD	C3N-C7N	4.73	1.57	1.50
3	G	401	NAD	C3N-C7N	4.63	1.57	1.50
3	F	401	NAD	C3N-C7N	4.59	1.57	1.50
3	H	401	NAD	O3D-C3D	4.59	1.53	1.43
3	Q	401	NAD	C3N-C7N	4.57	1.57	1.50
3	H	401	NAD	C3N-C7N	4.52	1.57	1.50
3	D	401	NAD	O3D-C3D	4.52	1.53	1.43
3	L	401	NAD	O3D-C3D	4.51	1.53	1.43
3	Q	401	NAD	O3D-C3D	4.51	1.53	1.43
3	G	401	NAD	O3D-C3D	4.45	1.53	1.43
3	F	401	NAD	O3D-C3D	4.44	1.53	1.43
3	E	401	NAD	O3D-C3D	4.40	1.53	1.43
3	B	401	NAD	O3D-C3D	4.38	1.53	1.43
3	C	401	NAD	O3D-C3D	4.35	1.53	1.43
3	C	401	NAD	C3N-C7N	4.17	1.56	1.50
3	B	401	NAD	C6A-N6A	4.17	1.49	1.34
3	H	401	NAD	C6A-N6A	4.15	1.49	1.34
3	F	401	NAD	C6A-N6A	4.14	1.49	1.34
3	L	401	NAD	C6A-N6A	4.14	1.49	1.34
3	D	401	NAD	C6A-N6A	4.13	1.49	1.34
3	E	401	NAD	C6A-N6A	4.11	1.49	1.34
3	C	401	NAD	C6A-N6A	4.11	1.49	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	401	NAD	C6A-N6A	4.09	1.49	1.34
3	Q	401	NAD	C6A-N6A	4.07	1.48	1.34
3	E	401	NAD	C3N-C7N	4.06	1.56	1.50
3	C	401	NAD	O3B-C3B	3.25	1.50	1.43
3	G	401	NAD	O3B-C3B	3.25	1.50	1.43
3	Q	401	NAD	O3B-C3B	3.24	1.50	1.43
3	D	401	NAD	O3B-C3B	3.09	1.50	1.43
3	B	401	NAD	O3B-C3B	3.09	1.50	1.43
3	E	401	NAD	O3B-C3B	3.07	1.50	1.43
3	L	401	NAD	O3B-C3B	3.05	1.50	1.43
3	H	401	NAD	O3B-C3B	3.00	1.50	1.43
3	F	401	NAD	C2N-N1N	2.94	1.38	1.35
3	F	401	NAD	O3B-C3B	2.92	1.49	1.43
3	E	401	NAD	O2B-C2B	-2.85	1.36	1.43
3	E	401	NAD	C5A-C4A	-2.85	1.33	1.40
3	B	401	NAD	O2B-C2B	-2.83	1.36	1.43
3	L	401	NAD	O2B-C2B	-2.83	1.36	1.43
3	F	401	NAD	O2B-C2B	-2.83	1.36	1.43
3	C	401	NAD	C5A-C4A	-2.81	1.33	1.40
3	H	401	NAD	O2B-C2B	-2.80	1.36	1.43
3	Q	401	NAD	C5A-C4A	-2.79	1.33	1.40
3	Q	401	NAD	O2B-C2B	-2.76	1.36	1.43
3	D	401	NAD	O2B-C2B	-2.75	1.36	1.43
3	B	401	NAD	C5A-C4A	-2.74	1.33	1.40
3	G	401	NAD	O2B-C2B	-2.74	1.36	1.43
3	C	401	NAD	O2B-C2B	-2.72	1.36	1.43
3	H	401	NAD	C5A-C4A	-2.72	1.33	1.40
3	G	401	NAD	C5A-C4A	-2.72	1.33	1.40
3	L	401	NAD	C5A-C4A	-2.70	1.33	1.40
3	D	401	NAD	C2N-N1N	2.69	1.38	1.35
3	D	401	NAD	C5A-C4A	-2.68	1.33	1.40
3	L	401	NAD	C2N-N1N	2.64	1.38	1.35
3	F	401	NAD	C5A-C4A	-2.64	1.34	1.40
3	D	401	NAD	C2A-N1A	2.61	1.38	1.33
3	Q	401	NAD	C2N-N1N	2.59	1.38	1.35
3	L	401	NAD	C2A-N1A	2.56	1.38	1.33
3	L	401	NAD	O7N-C7N	-2.55	1.19	1.24
3	G	401	NAD	C2N-N1N	2.52	1.38	1.35
3	B	401	NAD	C2A-N1A	2.50	1.38	1.33
3	D	401	NAD	O7N-C7N	-2.50	1.19	1.24
3	C	401	NAD	C2A-N1A	2.46	1.38	1.33
3	E	401	NAD	O7N-C7N	-2.45	1.19	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	F	401	NAD	C2A-N1A	2.45	1.38	1.33
3	H	401	NAD	C2A-N1A	2.42	1.38	1.33
3	E	401	NAD	C2A-N1A	2.42	1.38	1.33
3	Q	401	NAD	C2D-C1D	2.41	1.57	1.53
3	Q	401	NAD	C2A-N1A	2.41	1.38	1.33
3	G	401	NAD	C2D-C1D	2.39	1.57	1.53
3	H	401	NAD	C2N-N1N	2.38	1.37	1.35
3	G	401	NAD	O7N-C7N	-2.37	1.19	1.24
3	B	401	NAD	C2N-N1N	2.37	1.37	1.35
3	C	401	NAD	O7N-C7N	-2.33	1.19	1.24
3	K	401	NAD	C2N-N1N	2.31	1.37	1.35
3	H	401	NAD	O7N-C7N	-2.31	1.19	1.24
3	G	401	NAD	C2A-N1A	2.26	1.38	1.33
3	D	401	NAD	C2D-C1D	2.26	1.57	1.53
3	F	401	NAD	O7N-C7N	-2.25	1.19	1.24
3	O	401	NAD	C2N-N1N	2.25	1.37	1.35
3	L	401	NAD	C2D-C1D	2.24	1.57	1.53
3	B	401	NAD	O7N-C7N	-2.24	1.19	1.24
3	F	401	NAD	C2D-C1D	2.21	1.57	1.53
3	F	401	NAD	C2A-N3A	2.21	1.35	1.32
3	Q	401	NAD	O7N-C7N	-2.20	1.19	1.24
3	L	401	NAD	C2A-N3A	2.18	1.35	1.32
3	P	401	NAD	C2N-N1N	2.14	1.37	1.35
3	D	401	NAD	C2A-N3A	2.11	1.35	1.32
3	R	401	NAD	C2N-N1N	2.10	1.37	1.35
3	E	401	NAD	C2D-C1D	2.09	1.56	1.53
3	J	401	NAD	C2N-N1N	2.07	1.37	1.35
3	B	401	NAD	PA-O5B	2.04	1.67	1.59
3	B	401	NAD	C2D-C1D	2.03	1.56	1.53
3	I	401	NAD	C2N-N1N	2.02	1.37	1.35
3	H	401	NAD	C2D-C1D	2.01	1.56	1.53
3	L	401	NAD	PA-O5B	2.00	1.67	1.59

All (95) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	401	NAD	C1B-N9A-C4A	-9.63	109.73	126.64
3	E	401	NAD	C1B-N9A-C4A	-9.49	109.96	126.64
3	L	401	NAD	C1B-N9A-C4A	-9.43	110.06	126.64
3	D	401	NAD	C1B-N9A-C4A	-9.43	110.08	126.64
3	H	401	NAD	C1B-N9A-C4A	-9.20	110.47	126.64
3	F	401	NAD	C1B-N9A-C4A	-9.06	110.72	126.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Q	401	NAD	C1B-N9A-C4A	-8.86	111.08	126.64
3	B	401	NAD	C1B-N9A-C4A	-8.86	111.08	126.64
3	H	401	NAD	C5A-C6A-N6A	8.12	132.69	120.35
3	L	401	NAD	C5A-C6A-N6A	8.07	132.62	120.35
3	D	401	NAD	C5A-C6A-N6A	8.07	132.61	120.35
3	G	401	NAD	C5A-C6A-N6A	7.90	132.36	120.35
3	G	401	NAD	C1B-N9A-C4A	-7.83	112.88	126.64
3	Q	401	NAD	C5A-C6A-N6A	7.83	132.25	120.35
3	F	401	NAD	C5A-C6A-N6A	7.82	132.23	120.35
3	C	401	NAD	C5A-C6A-N6A	7.81	132.22	120.35
3	E	401	NAD	C5A-C6A-N6A	7.66	131.99	120.35
3	B	401	NAD	C5A-C6A-N6A	7.56	131.84	120.35
3	G	401	NAD	N3A-C2A-N1A	-5.82	119.58	128.68
3	B	401	NAD	N3A-C2A-N1A	-5.77	119.65	128.68
3	F	401	NAD	N3A-C2A-N1A	-5.64	119.86	128.68
3	Q	401	NAD	N3A-C2A-N1A	-5.61	119.92	128.68
3	C	401	NAD	N3A-C2A-N1A	-5.60	119.93	128.68
3	E	401	NAD	N3A-C2A-N1A	-5.58	119.95	128.68
3	L	401	NAD	N3A-C2A-N1A	-5.52	120.05	128.68
3	D	401	NAD	N3A-C2A-N1A	-5.48	120.11	128.68
3	H	401	NAD	N6A-C6A-N1A	-5.38	107.41	118.57
3	L	401	NAD	N6A-C6A-N1A	-5.36	107.44	118.57
3	D	401	NAD	N6A-C6A-N1A	-5.35	107.46	118.57
3	F	401	NAD	N6A-C6A-N1A	-5.25	107.69	118.57
3	Q	401	NAD	N6A-C6A-N1A	-5.22	107.74	118.57
3	H	401	NAD	N3A-C2A-N1A	-5.20	120.55	128.68
3	C	401	NAD	N6A-C6A-N1A	-5.15	107.89	118.57
3	G	401	NAD	N6A-C6A-N1A	-5.11	107.97	118.57
3	E	401	NAD	N6A-C6A-N1A	-5.08	108.03	118.57
3	B	401	NAD	N6A-C6A-N1A	-5.01	108.18	118.57
3	B	401	NAD	C3B-C2B-C1B	3.87	106.81	100.98
3	E	401	NAD	C6N-N1N-C2N	-3.74	118.57	121.97
3	K	401	NAD	C3D-C2D-C1D	3.63	106.44	100.98
3	C	401	NAD	C3B-C2B-C1B	3.43	106.14	100.98
3	E	401	NAD	PN-O3-PA	-3.41	121.12	132.83
3	Q	401	NAD	PN-O3-PA	-3.28	121.56	132.83
3	E	401	NAD	C2N-C3N-C4N	3.23	121.92	118.26
3	C	401	NAD	PN-O3-PA	-3.06	122.31	132.83
3	Q	401	NAD	C3D-C2D-C1D	2.98	105.46	100.98
3	B	401	NAD	PN-O3-PA	-2.93	122.76	132.83
3	A	401	NAD	C3N-C2N-N1N	-2.81	117.68	120.43
3	H	401	NAD	PN-O3-PA	-2.77	123.30	132.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	401	NAD	C6N-N1N-C2N	-2.76	119.46	121.97
3	C	401	NAD	C2N-C3N-C4N	2.74	121.36	118.26
3	Q	401	NAD	C6N-N1N-C2N	-2.73	119.49	121.97
3	I	401	NAD	C6N-N1N-C2N	-2.73	119.49	121.97
3	L	401	NAD	PN-O3-PA	-2.71	123.52	132.83
3	R	401	NAD	C3D-C2D-C1D	2.71	105.06	100.98
3	D	401	NAD	PN-O3-PA	-2.70	123.54	132.83
3	R	401	NAD	C6N-N1N-C2N	-2.70	119.51	121.97
3	K	401	NAD	C6N-N1N-C2N	-2.68	119.53	121.97
3	J	401	NAD	C6N-N1N-C2N	-2.62	119.59	121.97
3	O	401	NAD	C6N-N1N-C2N	-2.61	119.60	121.97
3	P	401	NAD	C6N-N1N-C2N	-2.59	119.62	121.97
3	E	401	NAD	C5N-C4N-C3N	-2.58	117.29	120.34
3	F	401	NAD	C3D-C2D-C1D	2.55	104.82	100.98
3	G	401	NAD	PN-O3-PA	-2.45	124.42	132.83
3	B	401	NAD	C2B-C3B-C4B	2.40	107.30	102.64
3	C	401	NAD	C2B-C3B-C4B	2.32	107.15	102.64
3	D	401	NAD	C3B-C2B-C1B	2.32	104.47	100.98
3	F	401	NAD	O4B-C1B-C2B	-2.31	103.56	106.93
3	L	401	NAD	C3B-C2B-C1B	2.29	104.43	100.98
3	R	401	NAD	C3N-C2N-N1N	-2.27	118.20	120.43
3	A	401	NAD	C5A-C6A-N6A	2.25	123.77	120.35
3	J	401	NAD	C3D-C2D-C1D	2.22	104.33	100.98
3	I	401	NAD	C5A-C6A-N6A	2.22	123.73	120.35
3	H	401	NAD	C3B-C2B-C1B	2.22	104.32	100.98
3	R	401	NAD	C5A-C6A-N6A	2.22	123.73	120.35
3	K	401	NAD	C5A-C6A-N6A	2.22	123.72	120.35
3	P	401	NAD	C5A-C6A-N6A	2.20	123.69	120.35
3	G	401	NAD	C2N-C3N-C4N	2.18	120.73	118.26
3	H	401	NAD	C2N-C3N-C4N	2.18	120.73	118.26
3	L	401	NAD	C3D-C2D-C1D	2.17	104.24	100.98
3	D	401	NAD	C3D-C2D-C1D	2.16	104.23	100.98
3	O	401	NAD	C5A-C6A-N6A	2.16	123.64	120.35
3	E	401	NAD	C3D-C2D-C1D	2.16	104.23	100.98
3	Q	401	NAD	C3B-C2B-C1B	2.15	104.22	100.98
3	Q	401	NAD	C2N-C3N-C4N	2.15	120.69	118.26
3	E	401	NAD	C3B-C2B-C1B	2.12	104.17	100.98
3	K	401	NAD	C3N-C2N-N1N	-2.12	118.36	120.43
3	J	401	NAD	C5A-C6A-N6A	2.11	123.55	120.35
3	F	401	NAD	C6N-N1N-C2N	-2.10	120.06	121.97
3	B	401	NAD	C2N-C3N-C4N	2.07	120.61	118.26
3	G	401	NAD	C6N-N1N-C2N	-2.06	120.10	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	401	NAD	C6N-N1N-C2N	-2.03	120.12	121.97
3	F	401	NAD	C2B-C3B-C4B	2.03	106.59	102.64
3	D	401	NAD	O7N-C7N-N7N	-2.03	119.70	122.58
3	C	401	NAD	C6N-N1N-C2N	-2.02	120.14	121.97
3	C	401	NAD	O4B-C4B-C3B	2.00	109.08	105.11

There are no chirality outliers.

All (198) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	O	401	NAD	C5B-O5B-PA-O2A
3	O	401	NAD	C5B-O5B-PA-O3
3	O	401	NAD	O4B-C4B-C5B-O5B
3	O	401	NAD	C3B-C4B-C5B-O5B
3	O	401	NAD	C5D-O5D-PN-O3
3	O	401	NAD	C5D-O5D-PN-O1N
3	O	401	NAD	C5D-O5D-PN-O2N
3	O	401	NAD	O4D-C1D-N1N-C2N
3	O	401	NAD	O4D-C1D-N1N-C6N
3	O	401	NAD	C2D-C1D-N1N-C2N
3	O	401	NAD	C2D-C1D-N1N-C6N
3	P	401	NAD	C5B-O5B-PA-O3
3	P	401	NAD	O4B-C4B-C5B-O5B
3	P	401	NAD	C3B-C4B-C5B-O5B
3	P	401	NAD	C5D-O5D-PN-O3
3	P	401	NAD	C4D-C5D-O5D-PN
3	Q	401	NAD	C5B-O5B-PA-O3
3	Q	401	NAD	C3B-C4B-C5B-O5B
3	Q	401	NAD	O4D-C1D-N1N-C2N
3	Q	401	NAD	O4D-C1D-N1N-C6N
3	Q	401	NAD	C2D-C1D-N1N-C2N
3	Q	401	NAD	C2D-C1D-N1N-C6N
3	R	401	NAD	C5B-O5B-PA-O1A
3	R	401	NAD	C3B-C4B-C5B-O5B
3	R	401	NAD	C5D-O5D-PN-O1N
3	R	401	NAD	C4D-C5D-O5D-PN
3	R	401	NAD	O4D-C4D-C5D-O5D
3	R	401	NAD	C3D-C4D-C5D-O5D
3	R	401	NAD	C2D-C1D-N1N-C2N
3	R	401	NAD	C2D-C1D-N1N-C6N
3	R	401	NAD	C2N-C3N-C7N-O7N
3	R	401	NAD	C2N-C3N-C7N-N7N

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Mol	Chain	Res	Type	Atoms
3	A	401	NAD	C5B-O5B-PA-O3
3	A	401	NAD	O4B-C4B-C5B-O5B
3	A	401	NAD	O4D-C1D-N1N-C2N
3	A	401	NAD	O4D-C1D-N1N-C6N
3	B	401	NAD	C4B-C5B-O5B-PA
3	B	401	NAD	C5D-O5D-PN-O3
3	B	401	NAD	C4D-C5D-O5D-PN
3	B	401	NAD	O4D-C4D-C5D-O5D
3	B	401	NAD	C3D-C4D-C5D-O5D
3	B	401	NAD	C2D-C1D-N1N-C2N
3	B	401	NAD	C2D-C1D-N1N-C6N
3	C	401	NAD	O4D-C4D-C5D-O5D
3	C	401	NAD	C2D-C1D-N1N-C2N
3	C	401	NAD	C2D-C1D-N1N-C6N
3	D	401	NAD	C3B-C4B-C5B-O5B
3	D	401	NAD	C5D-O5D-PN-O3
3	D	401	NAD	C5D-O5D-PN-O2N
3	D	401	NAD	C4D-C5D-O5D-PN
3	D	401	NAD	C3D-C4D-C5D-O5D
3	E	401	NAD	C3B-C4B-C5B-O5B
3	E	401	NAD	C5D-O5D-PN-O3
3	E	401	NAD	O4D-C1D-N1N-C2N
3	F	401	NAD	C5B-O5B-PA-O3
3	F	401	NAD	C5D-O5D-PN-O3
3	F	401	NAD	C5D-O5D-PN-O2N
3	F	401	NAD	C4D-C5D-O5D-PN
3	F	401	NAD	O4D-C1D-N1N-C2N
3	G	401	NAD	C4B-C5B-O5B-PA
3	G	401	NAD	C3B-C4B-C5B-O5B
3	G	401	NAD	O4D-C1D-N1N-C2N
3	G	401	NAD	O4D-C1D-N1N-C6N
3	G	401	NAD	C2D-C1D-N1N-C2N
3	G	401	NAD	C2D-C1D-N1N-C6N
3	H	401	NAD	C3B-C4B-C5B-O5B
3	H	401	NAD	C5D-O5D-PN-O3
3	H	401	NAD	C5D-O5D-PN-O2N
3	H	401	NAD	C4D-C5D-O5D-PN
3	H	401	NAD	O4D-C4D-C5D-O5D
3	H	401	NAD	C3D-C4D-C5D-O5D
3	H	401	NAD	C2D-C1D-N1N-C2N
3	H	401	NAD	C2D-C1D-N1N-C6N
3	I	401	NAD	C5B-O5B-PA-O1A

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Mol	Chain	Res	Type	Atoms
3	I	401	NAD	C5B-O5B-PA-O2A
3	I	401	NAD	C4B-C5B-O5B-PA
3	I	401	NAD	C3B-C4B-C5B-O5B
3	I	401	NAD	C5D-O5D-PN-O3
3	I	401	NAD	C4D-C5D-O5D-PN
3	I	401	NAD	O4D-C4D-C5D-O5D
3	J	401	NAD	O4B-C4B-C5B-O5B
3	J	401	NAD	C3B-C4B-C5B-O5B
3	J	401	NAD	C4D-C5D-O5D-PN
3	J	401	NAD	C3D-C4D-C5D-O5D
3	J	401	NAD	C2D-C1D-N1N-C2N
3	J	401	NAD	C2D-C1D-N1N-C6N
3	K	401	NAD	C5D-O5D-PN-O1N
3	K	401	NAD	C3D-C4D-C5D-O5D
3	K	401	NAD	C2N-C3N-C7N-O7N
3	K	401	NAD	C2N-C3N-C7N-N7N
3	L	401	NAD	C3B-C4B-C5B-O5B
3	L	401	NAD	C5D-O5D-PN-O3
3	L	401	NAD	C5D-O5D-PN-O2N
3	L	401	NAD	C4D-C5D-O5D-PN
3	L	401	NAD	C3D-C4D-C5D-O5D
3	K	401	NAD	C4N-C3N-C7N-O7N
3	K	401	NAD	C4N-C3N-C7N-N7N
3	R	401	NAD	C4N-C3N-C7N-O7N
3	R	401	NAD	C4N-C3N-C7N-N7N
3	B	401	NAD	O4B-C4B-C5B-O5B
3	B	401	NAD	C3B-C4B-C5B-O5B
3	C	401	NAD	O4B-C4B-C5B-O5B
3	C	401	NAD	C3B-C4B-C5B-O5B
3	C	401	NAD	C3D-C4D-C5D-O5D
3	E	401	NAD	O4B-C4B-C5B-O5B
3	E	401	NAD	O4D-C4D-C5D-O5D
3	I	401	NAD	C3D-C4D-C5D-O5D
3	K	401	NAD	O4B-C4B-C5B-O5B
3	K	401	NAD	C3B-C4B-C5B-O5B
3	Q	401	NAD	O4B-C4B-C5B-O5B
3	R	401	NAD	O4B-C4B-C5B-O5B
3	A	401	NAD	C3B-C4B-C5B-O5B
3	D	401	NAD	O4B-C4B-C5B-O5B
3	G	401	NAD	O4B-C4B-C5B-O5B
3	H	401	NAD	O4B-C4B-C5B-O5B
3	J	401	NAD	O4D-C4D-C5D-O5D

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Mol	Chain	Res	Type	Atoms
3	L	401	NAD	O4B-C4B-C5B-O5B
3	D	401	NAD	O4D-C4D-C5D-O5D
3	Q	401	NAD	C4B-C5B-O5B-PA
3	E	401	NAD	C4B-C5B-O5B-PA
3	I	401	NAD	O4B-C4B-C5B-O5B
3	L	401	NAD	O4D-C4D-C5D-O5D
3	C	401	NAD	C4B-C5B-O5B-PA
3	K	401	NAD	O4D-C4D-C5D-O5D
3	K	401	NAD	C4B-C5B-O5B-PA
3	Q	401	NAD	PA-O3-PN-O1N
3	H	401	NAD	PN-O3-PA-O1A
3	A	401	NAD	C4B-C5B-O5B-PA
3	E	401	NAD	C3D-C4D-C5D-O5D
3	O	401	NAD	C4B-C5B-O5B-PA
3	O	401	NAD	C4D-C5D-O5D-PN
3	R	401	NAD	C4B-C5B-O5B-PA
3	A	401	NAD	C4N-C3N-C7N-N7N
3	A	401	NAD	C4N-C3N-C7N-O7N
3	P	401	NAD	PN-O3-PA-O5B
3	C	401	NAD	PN-O3-PA-O5B
3	F	401	NAD	PN-O3-PA-O5B
3	I	401	NAD	PN-O3-PA-O5B
3	K	401	NAD	PN-O3-PA-O5B
3	K	401	NAD	PA-O3-PN-O5D
3	C	401	NAD	C4D-C5D-O5D-PN
3	H	401	NAD	C4B-C5B-O5B-PA
3	J	401	NAD	C4B-C5B-O5B-PA
3	R	401	NAD	C5D-O5D-PN-O3
3	O	401	NAD	PA-O3-PN-O1N
3	C	401	NAD	PA-O3-PN-O1N
3	G	401	NAD	PN-O3-PA-O1A
3	D	401	NAD	C4B-C5B-O5B-PA
3	E	401	NAD	C4D-C5D-O5D-PN
3	L	401	NAD	C4B-C5B-O5B-PA
3	P	401	NAD	C5B-O5B-PA-O1A
3	P	401	NAD	C5D-O5D-PN-O1N
3	A	401	NAD	C5B-O5B-PA-O2A
3	B	401	NAD	C5D-O5D-PN-O1N
3	B	401	NAD	C5D-O5D-PN-O2N
3	D	401	NAD	C5B-O5B-PA-O1A
3	D	401	NAD	C5D-O5D-PN-O1N
3	E	401	NAD	C5D-O5D-PN-O1N

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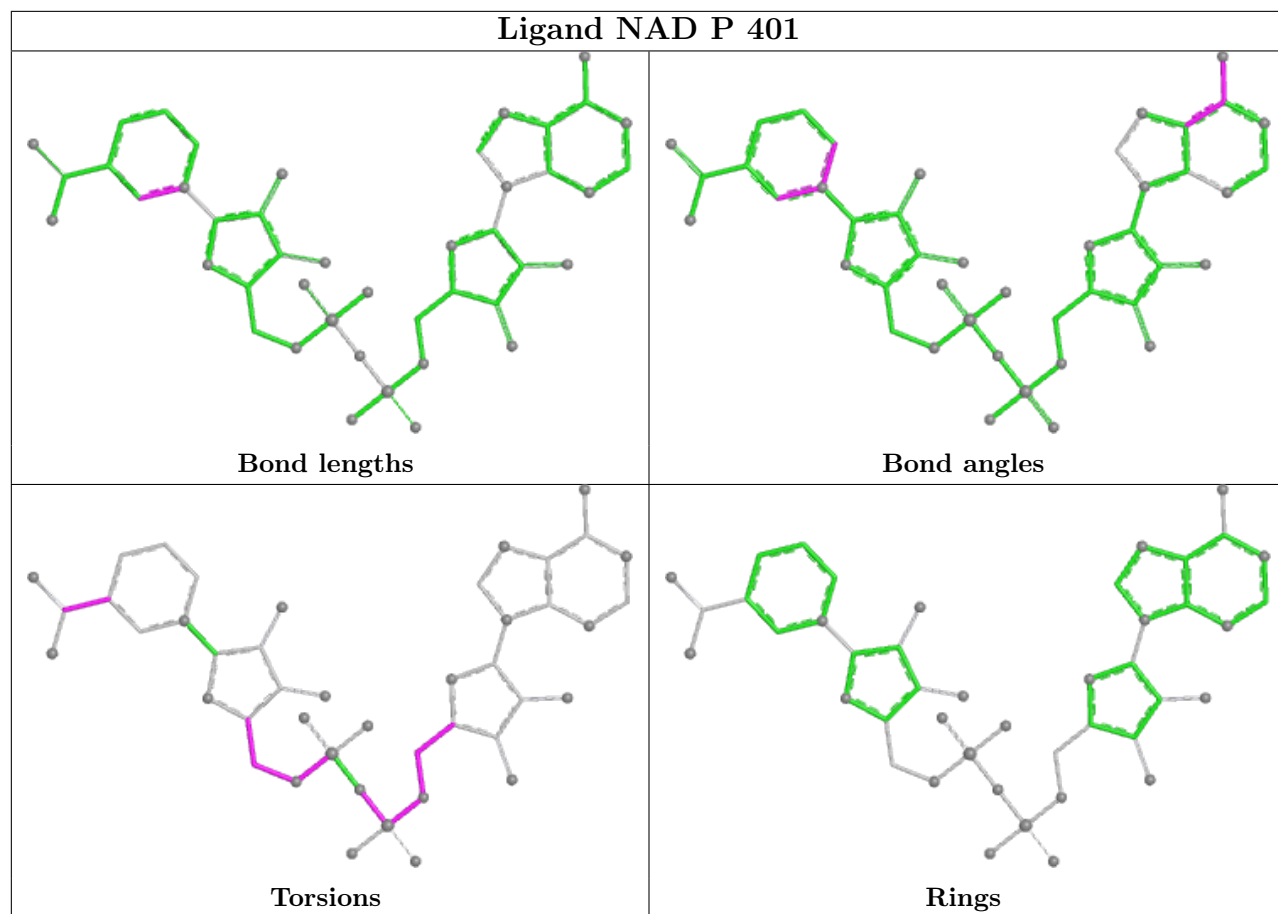
Mol	Chain	Res	Type	Atoms
3	E	401	NAD	C5D-O5D-PN-O2N
3	F	401	NAD	C5B-O5B-PA-O2A
3	F	401	NAD	C5D-O5D-PN-O1N
3	H	401	NAD	C5D-O5D-PN-O1N
3	I	401	NAD	C5D-O5D-PN-O2N
3	L	401	NAD	C5D-O5D-PN-O1N
3	A	401	NAD	C2N-C3N-C7N-N7N
3	F	401	NAD	C4B-C5B-O5B-PA
3	O	401	NAD	PA-O3-PN-O2N
3	P	401	NAD	PN-O3-PA-O1A
3	D	401	NAD	PN-O3-PA-O1A
3	G	401	NAD	PA-O3-PN-O2N
3	K	401	NAD	PN-O3-PA-O1A
3	A	401	NAD	C2N-C3N-C7N-O7N
3	A	401	NAD	PN-O3-PA-O1A
3	C	401	NAD	PN-O3-PA-O1A
3	G	401	NAD	PN-O3-PA-O2A
3	H	401	NAD	PN-O3-PA-O2A
3	L	401	NAD	PN-O3-PA-O1A
3	A	401	NAD	C2D-C1D-N1N-C6N
3	B	401	NAD	C5B-O5B-PA-O3
3	I	401	NAD	C5B-O5B-PA-O3
3	J	401	NAD	C5D-O5D-PN-O3
3	K	401	NAD	C5D-O5D-PN-O3
3	P	401	NAD	C3D-C4D-C5D-O5D
3	A	401	NAD	PN-O3-PA-O2A
3	A	401	NAD	PA-O3-PN-O2N
3	D	401	NAD	PN-O3-PA-O2A
3	F	401	NAD	PN-O3-PA-O1A
3	F	401	NAD	PA-O3-PN-O2N
3	G	401	NAD	PA-O3-PN-O1N
3	I	401	NAD	PN-O3-PA-O2A
3	L	401	NAD	PN-O3-PA-O2A
3	P	401	NAD	C4B-C5B-O5B-PA
3	P	401	NAD	C5D-O5D-PN-O2N
3	L	401	NAD	C5B-O5B-PA-O1A
3	F	401	NAD	O4B-C4B-C5B-O5B
3	G	401	NAD	C4D-C5D-O5D-PN
3	P	401	NAD	C4N-C3N-C7N-N7N
3	P	401	NAD	C4N-C3N-C7N-O7N

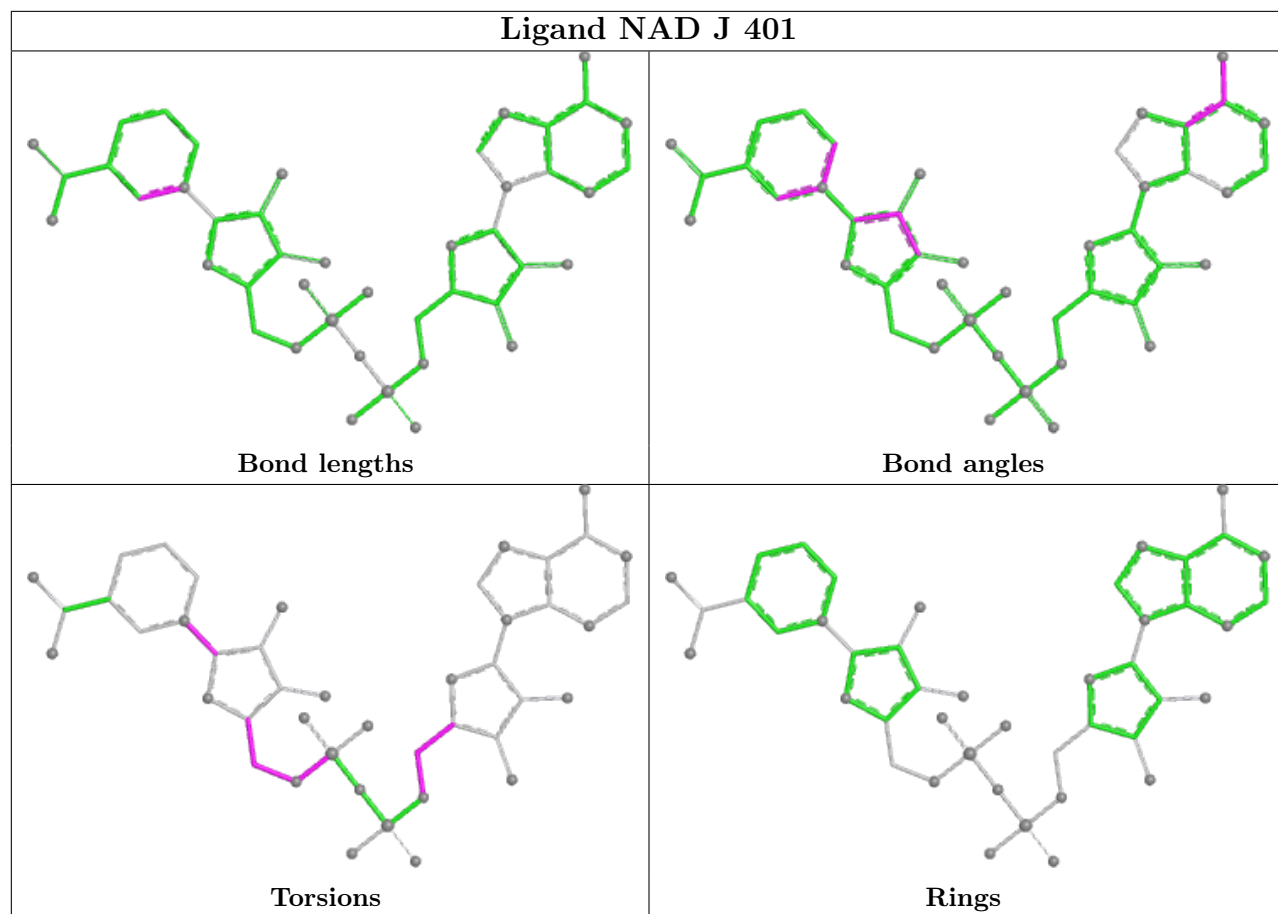
There are no ring outliers.

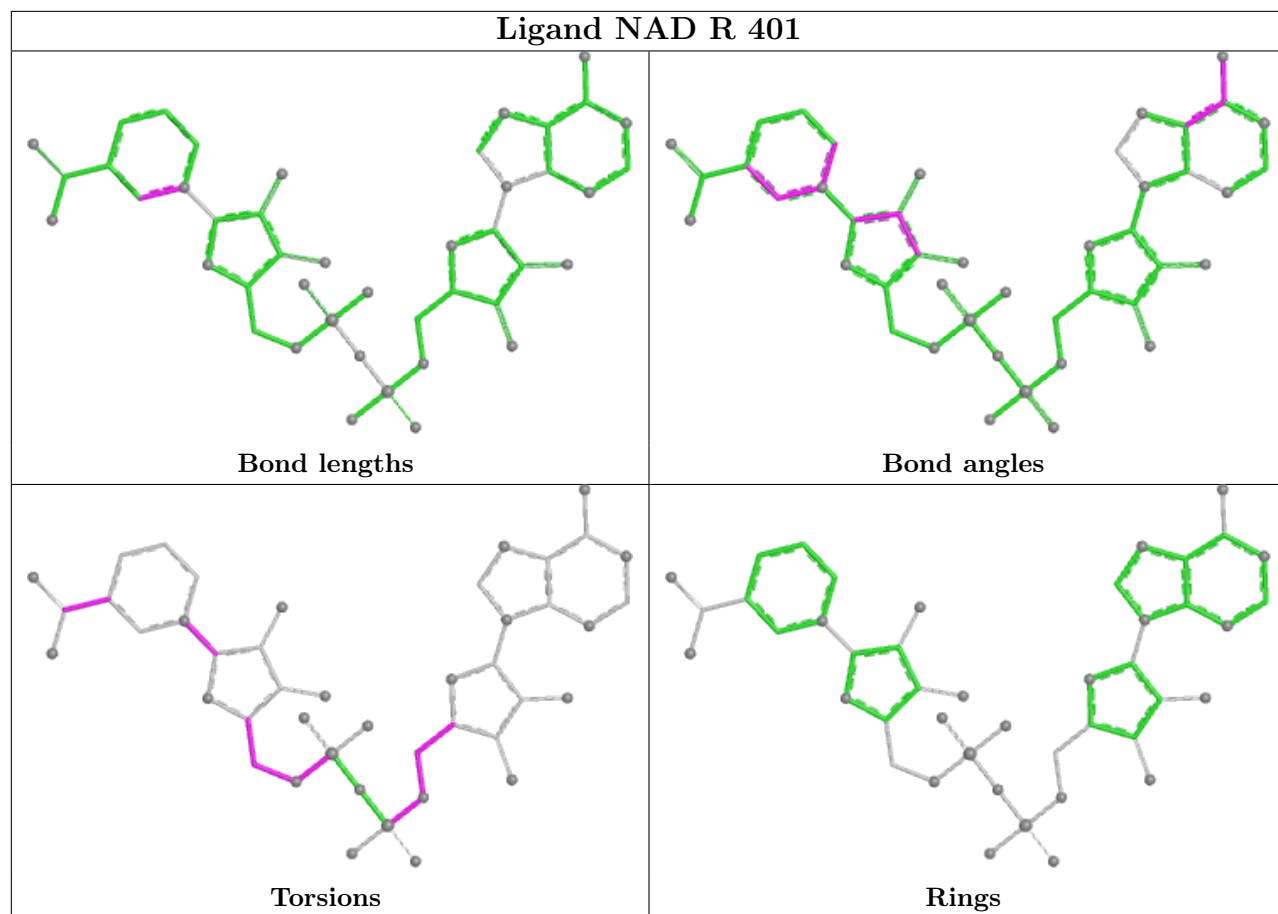
16 monomers are involved in 176 short contacts:

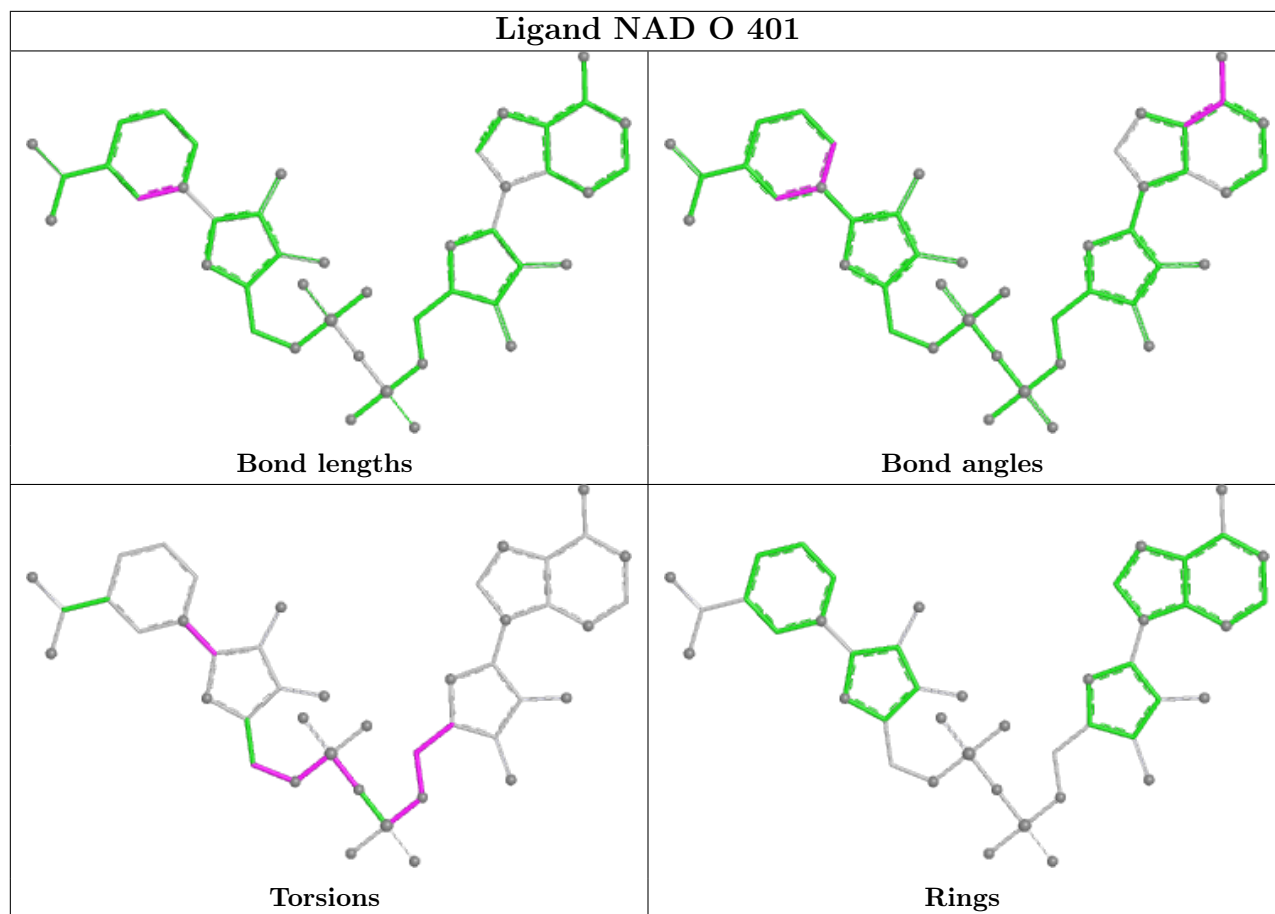
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	P	401	NAD	14	0
3	J	401	NAD	9	0
3	R	401	NAD	13	0
3	O	401	NAD	10	0
3	C	401	NAD	12	0
3	E	401	NAD	9	0
3	B	401	NAD	11	0
3	G	401	NAD	16	0
3	Q	401	NAD	12	0
3	H	401	NAD	11	0
3	I	401	NAD	9	0
3	K	401	NAD	11	0
3	D	401	NAD	12	0
3	F	401	NAD	10	0
3	L	401	NAD	10	0
3	A	401	NAD	7	0

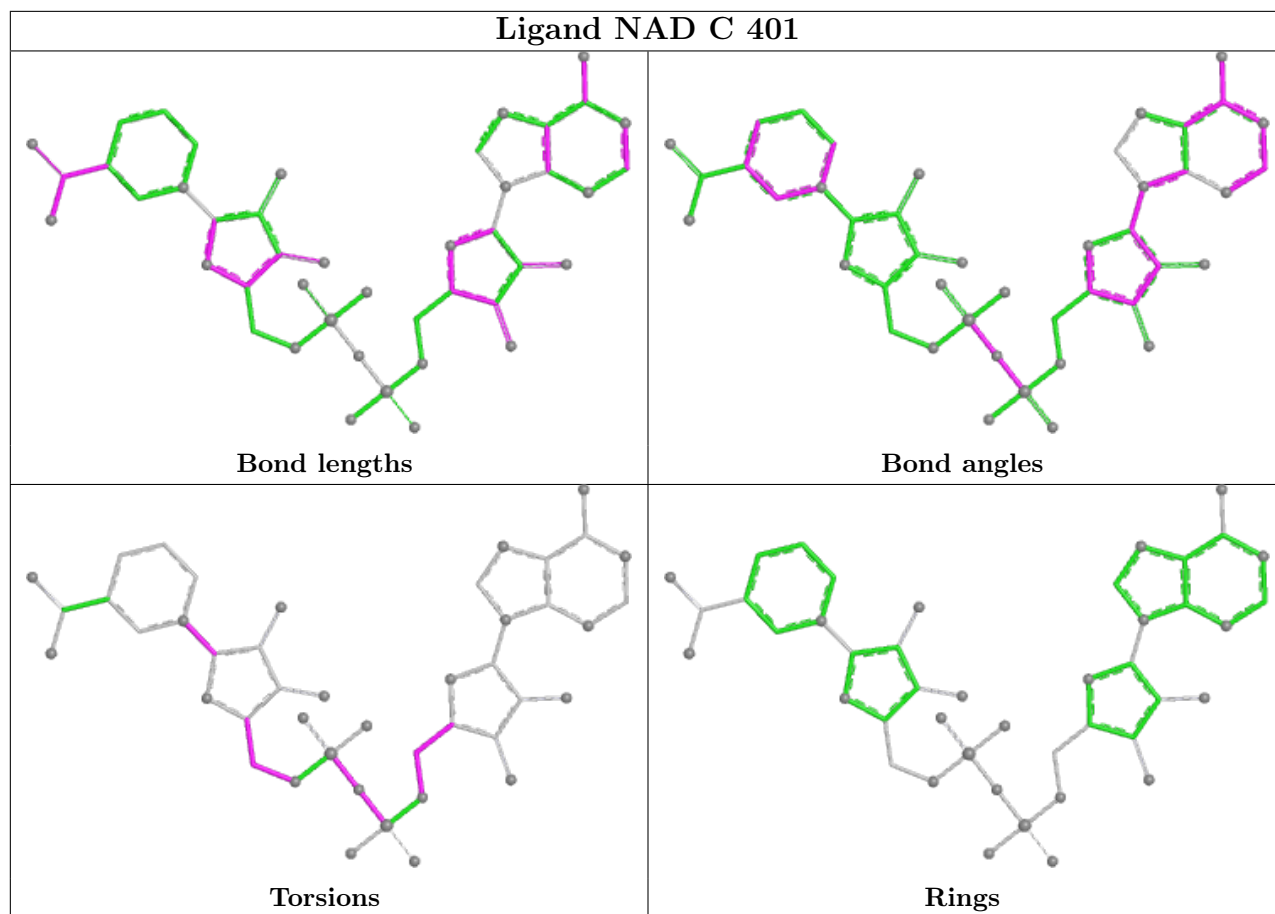
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

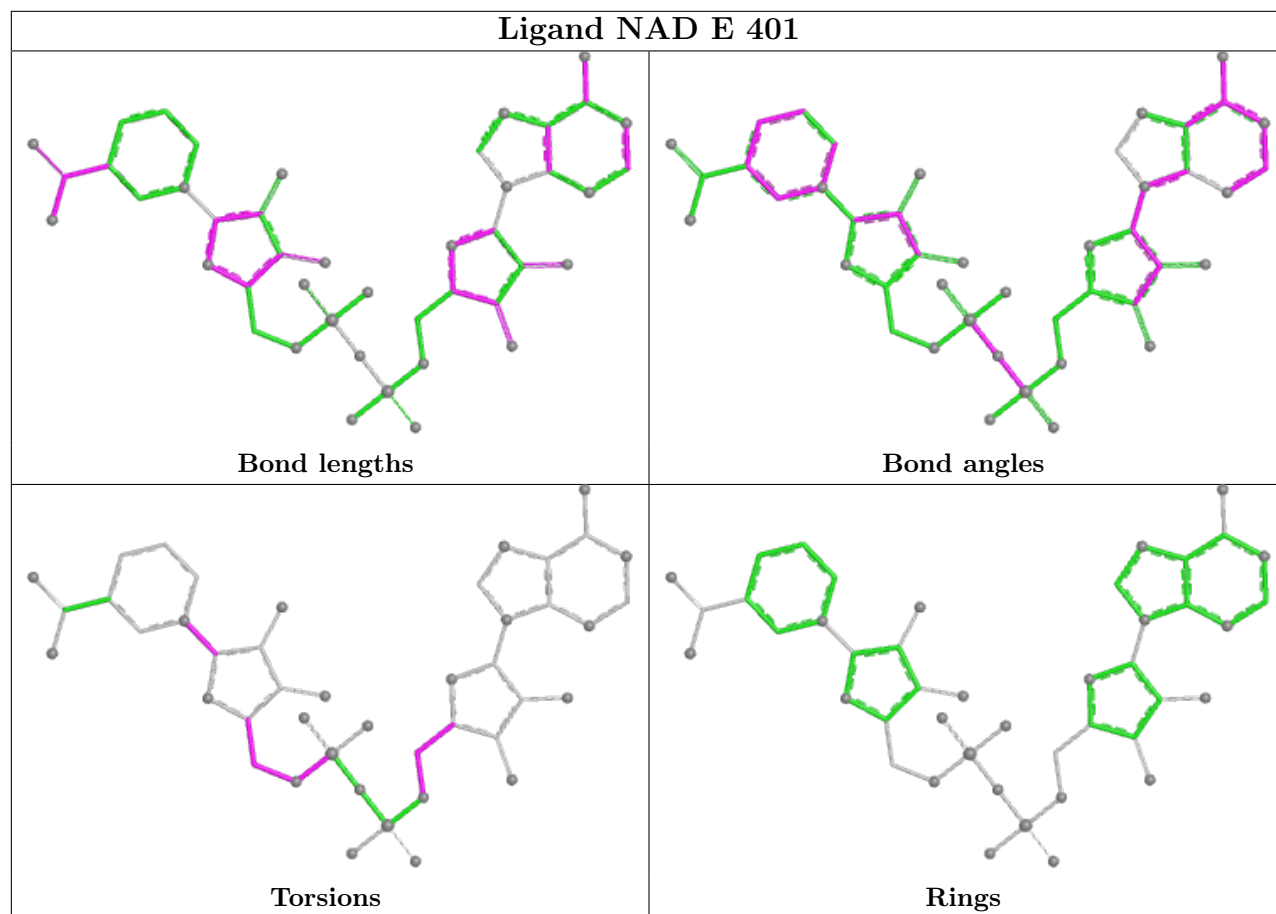


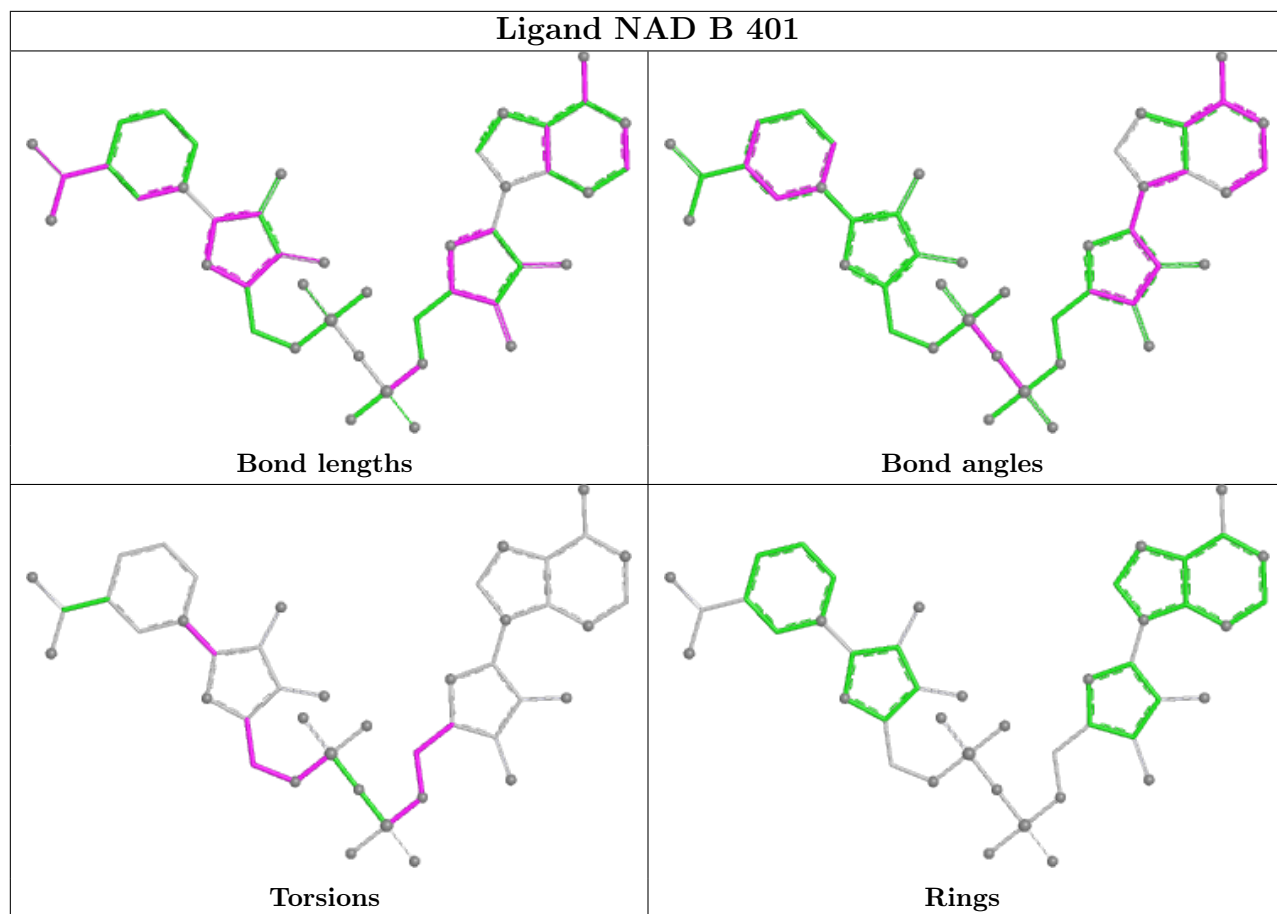


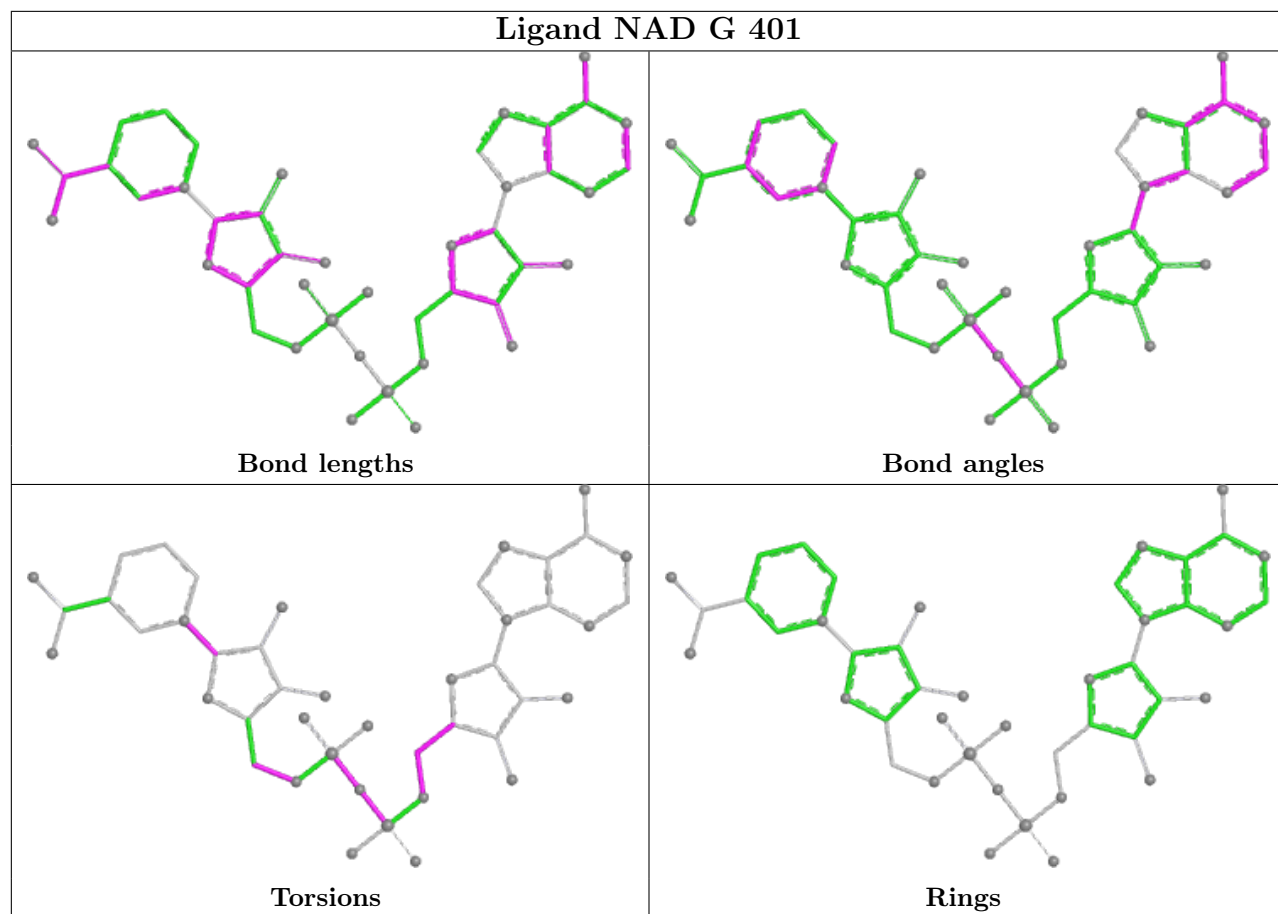


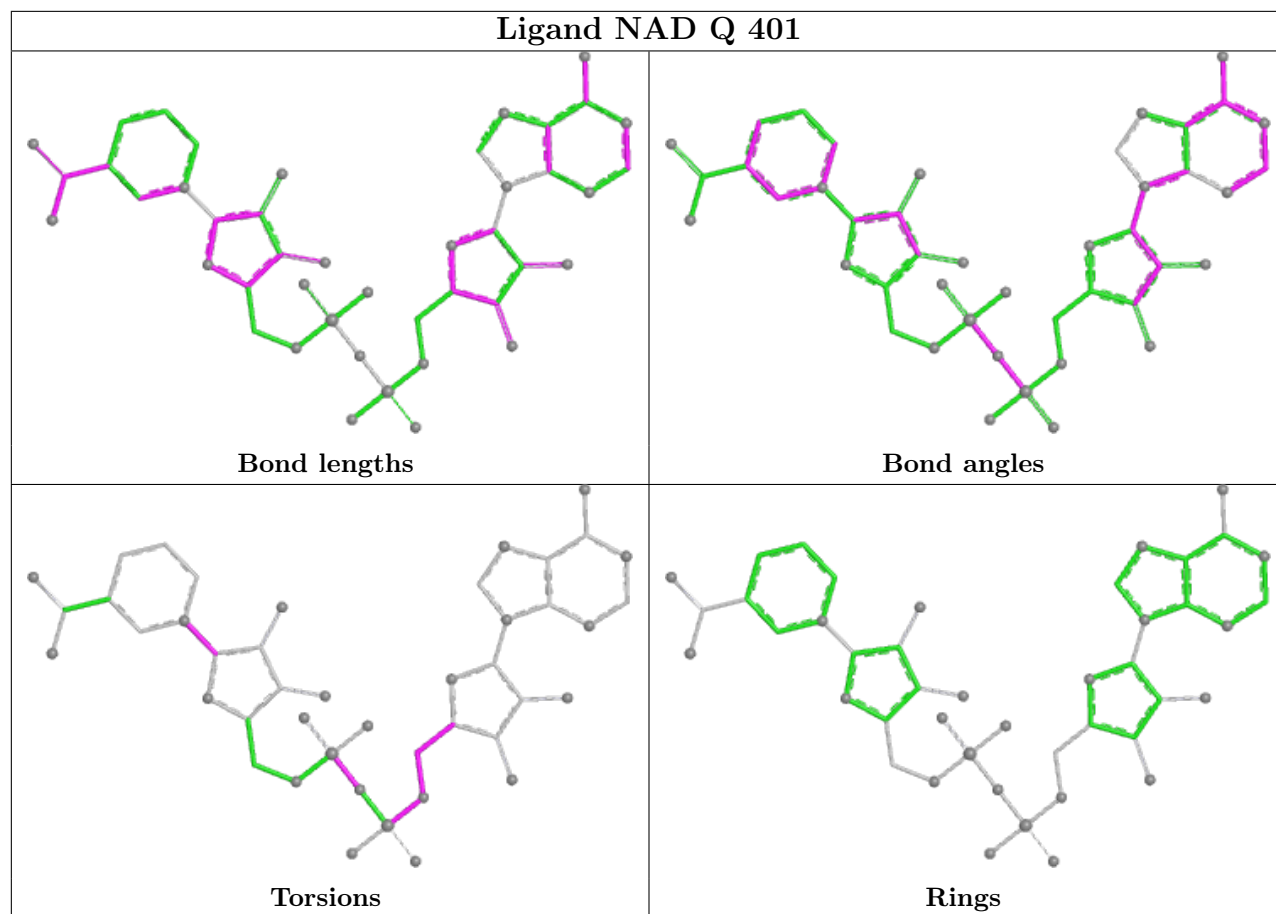


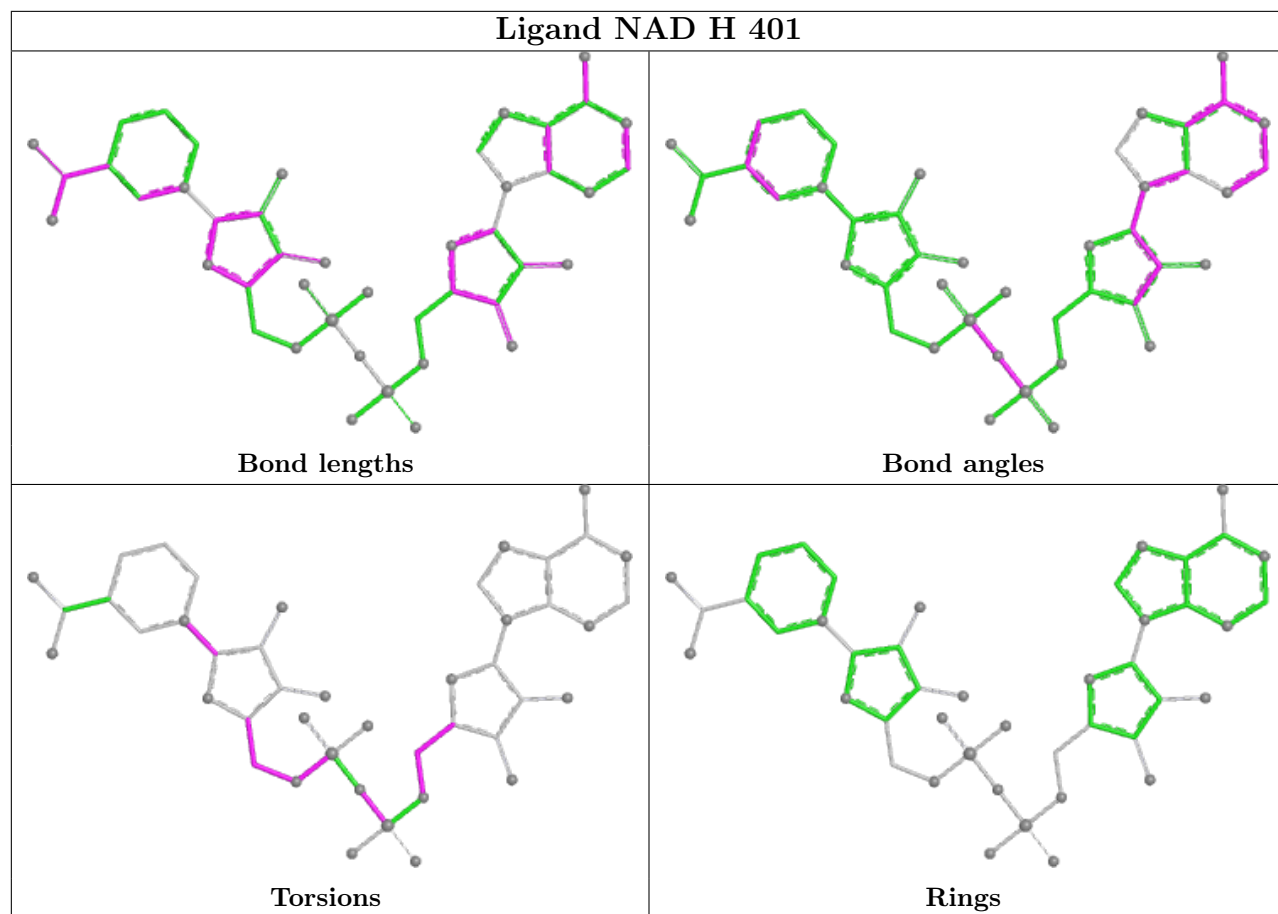


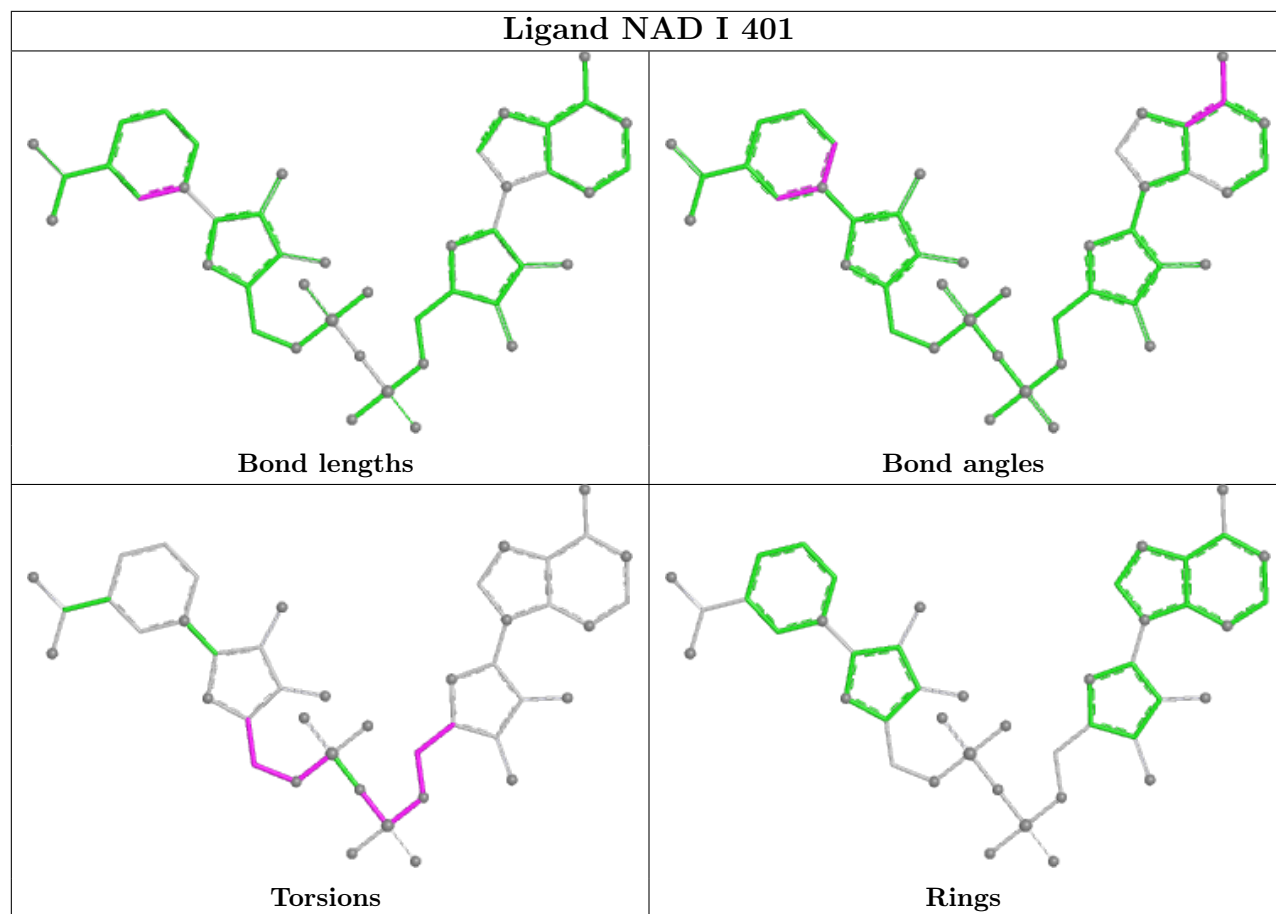


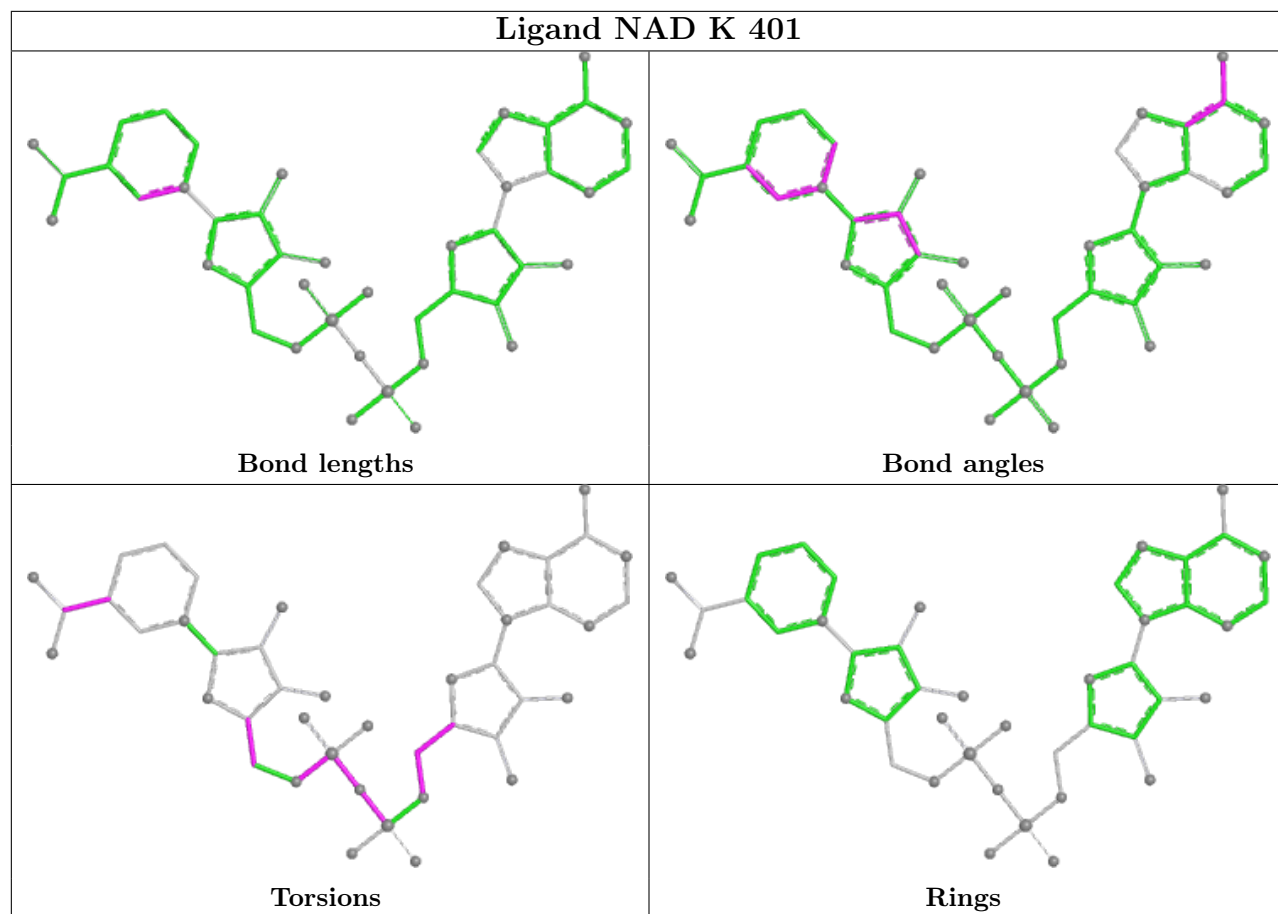


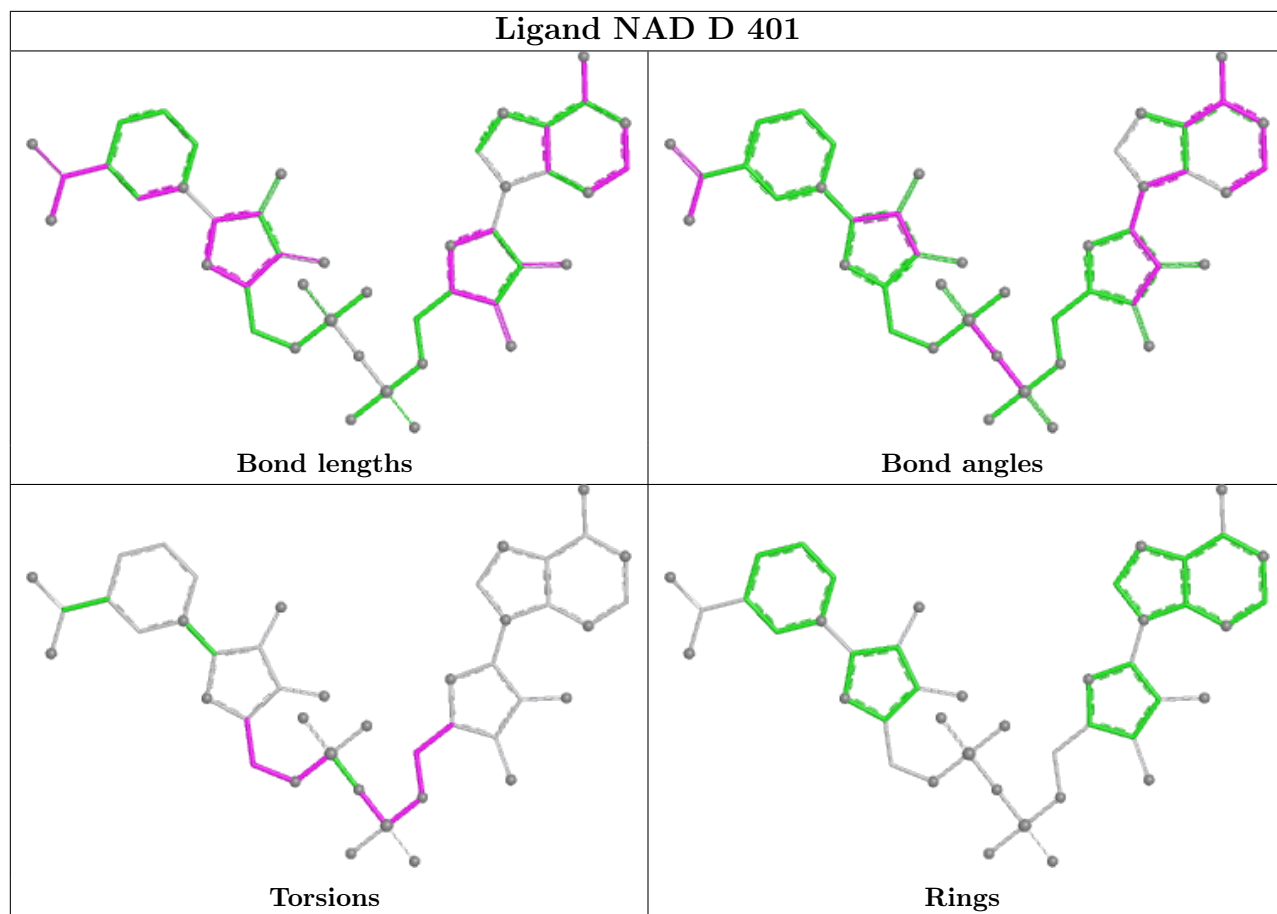


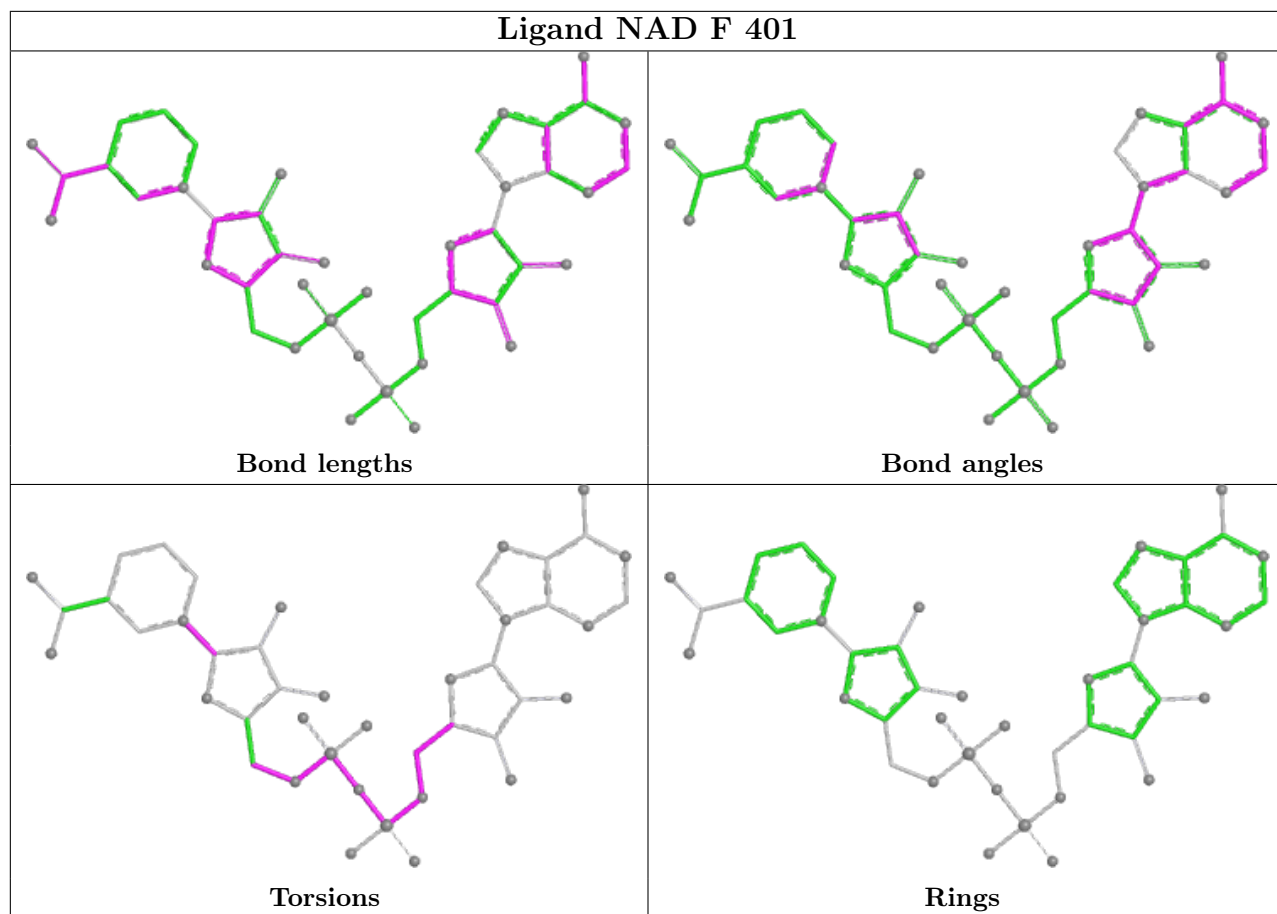


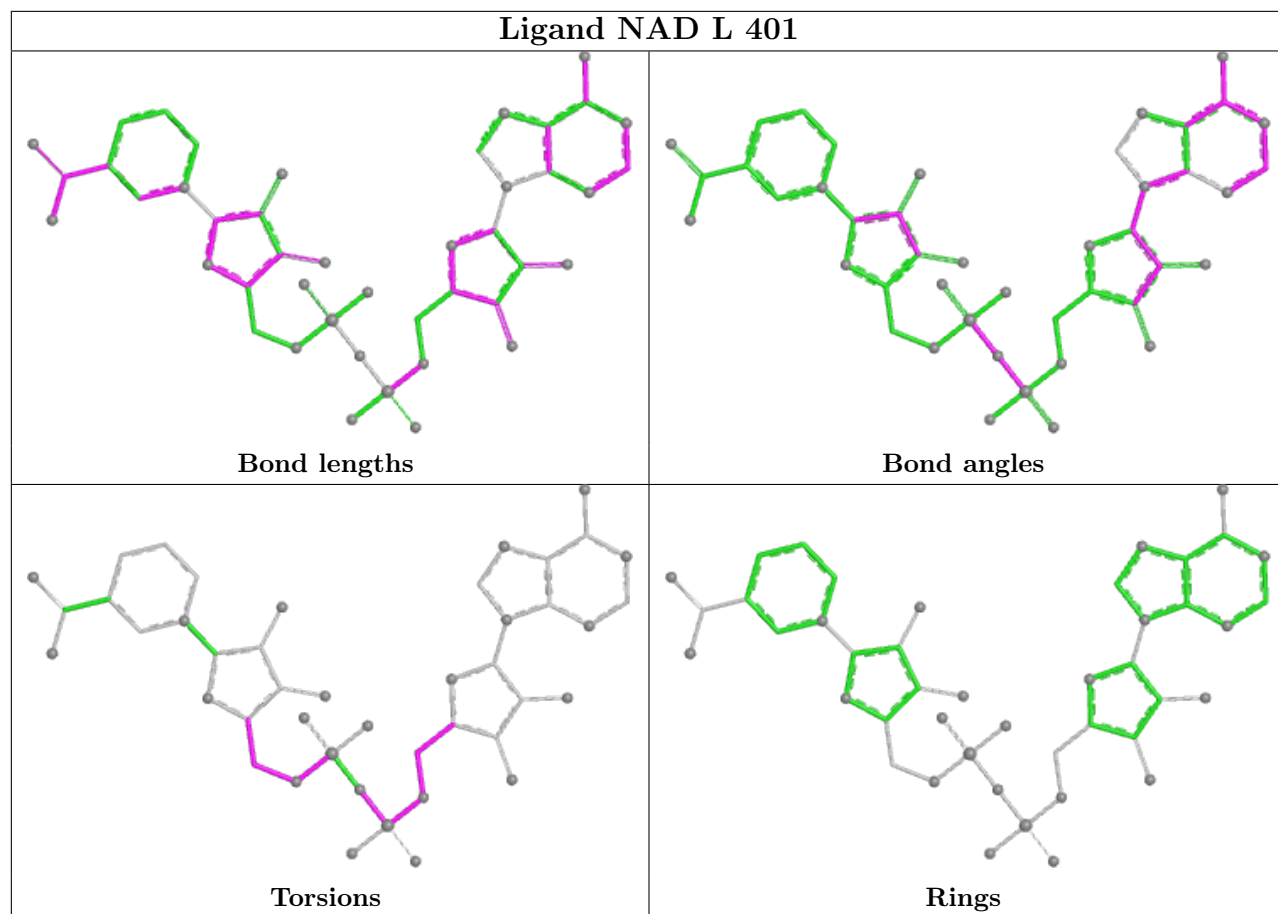


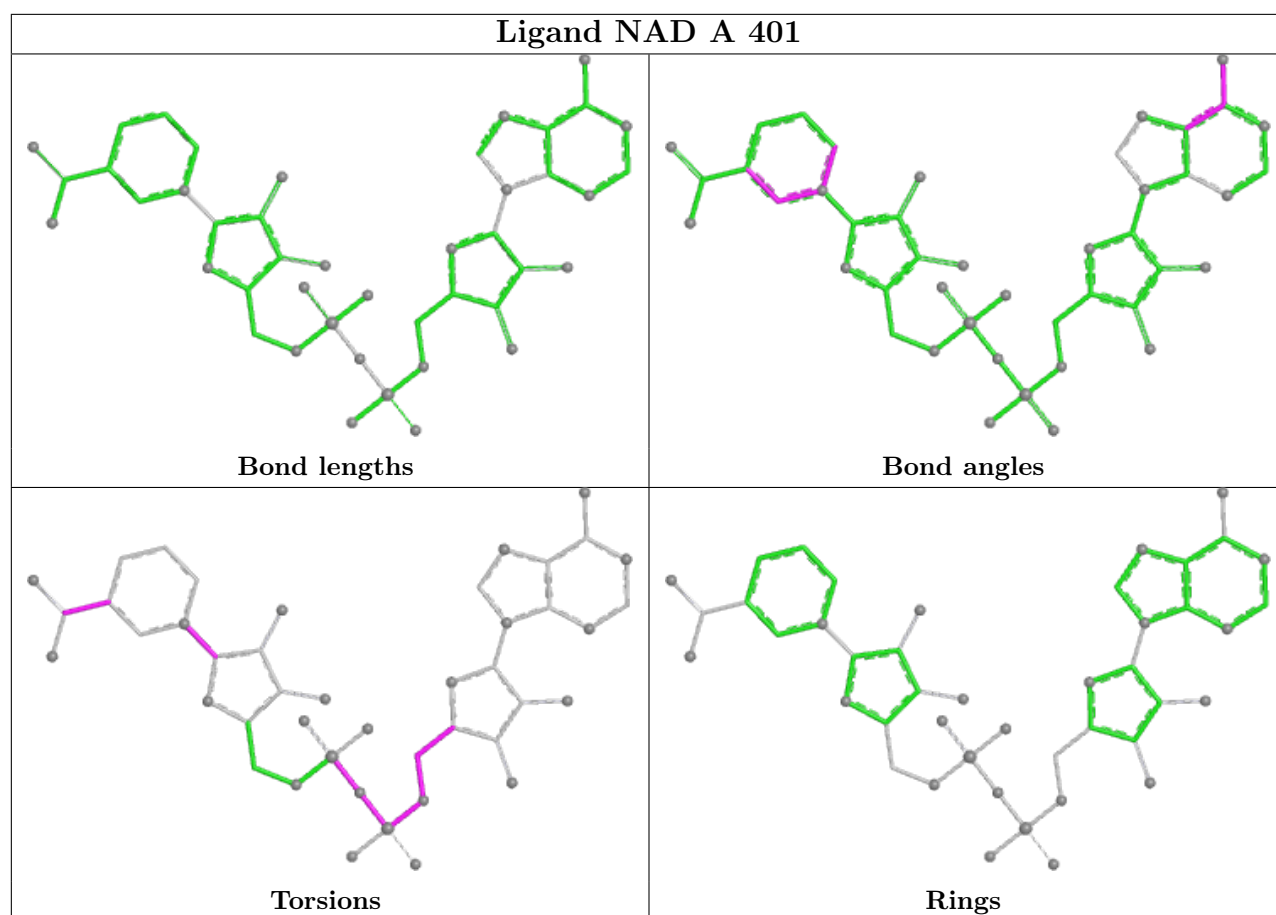












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-13826. These allow visual inspection of the internal detail of the map and identification of artifacts.

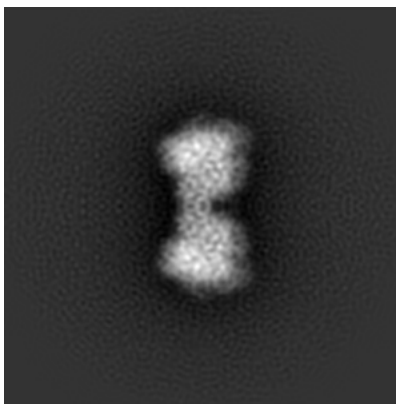
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

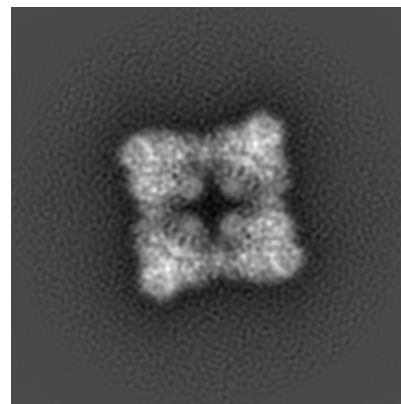
6.1.1 Primary map



X

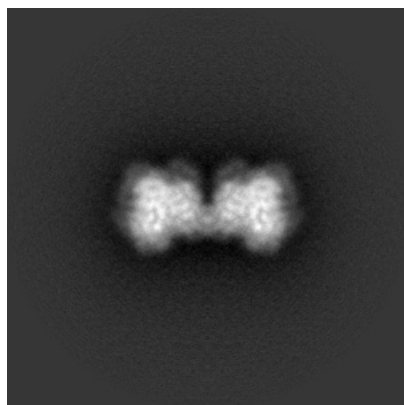


Y

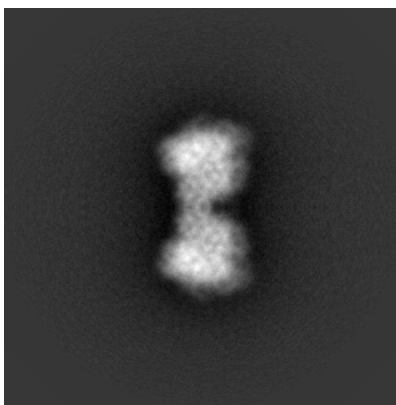


Z

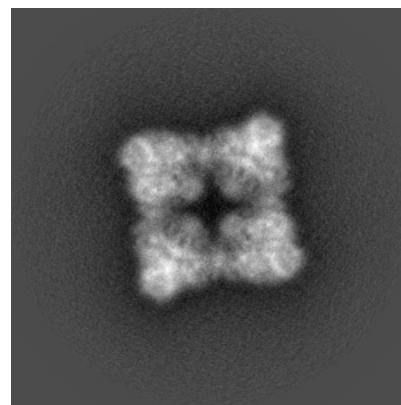
6.1.2 Raw map



X



Y

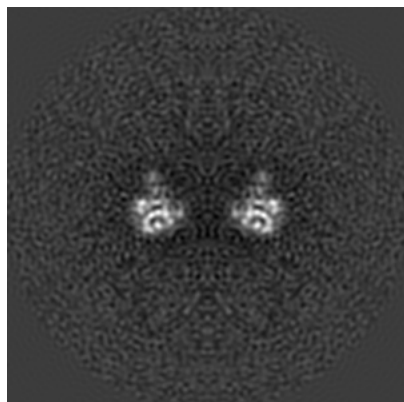


Z

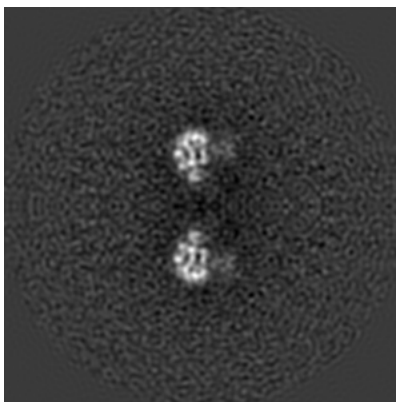
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

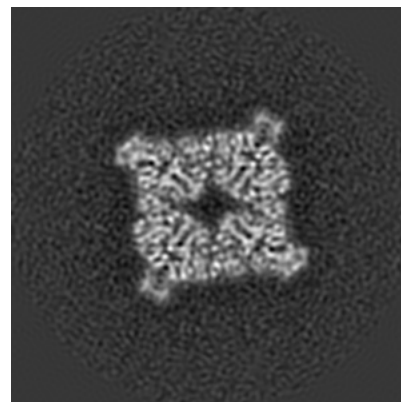
6.2.1 Primary map



X Index: 150

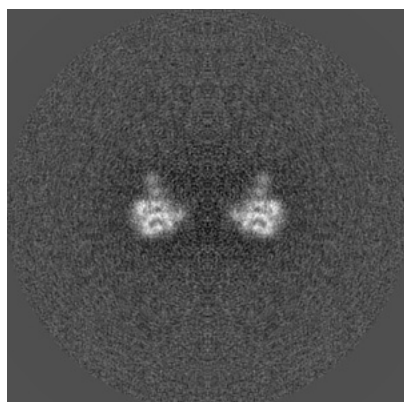


Y Index: 150

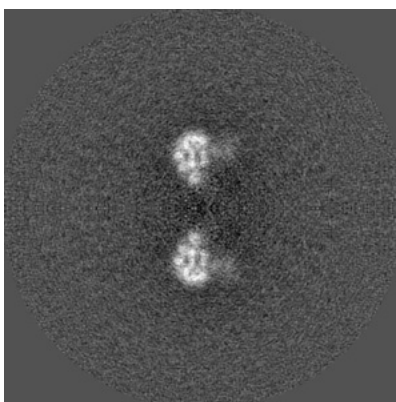


Z Index: 150

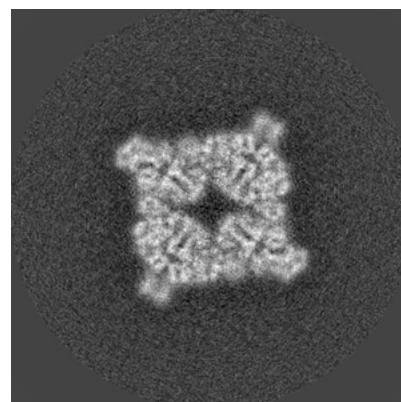
6.2.2 Raw map



X Index: 150



Y Index: 150

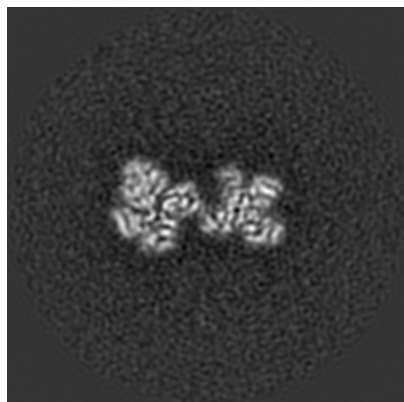


Z Index: 150

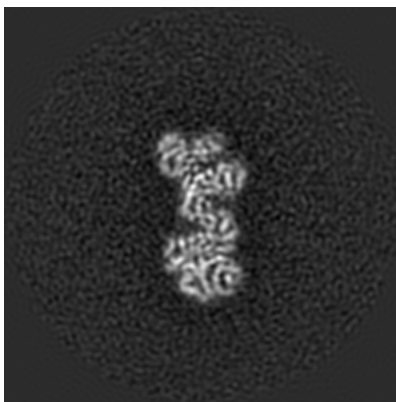
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

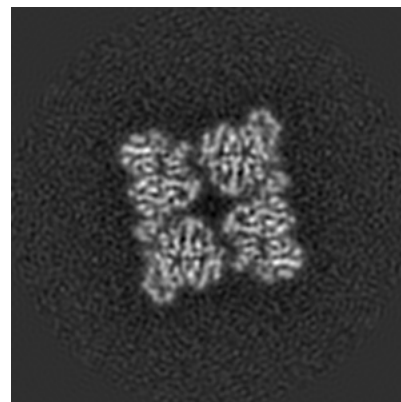
6.3.1 Primary map



X Index: 119

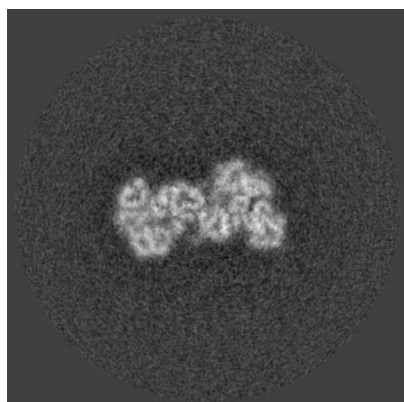


Y Index: 186

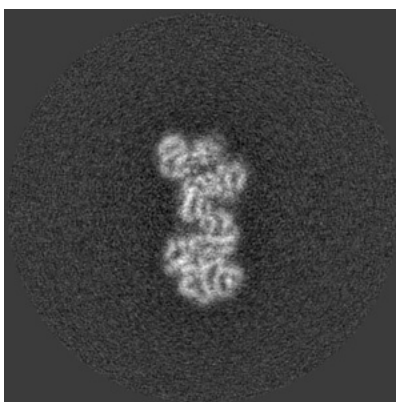


Z Index: 143

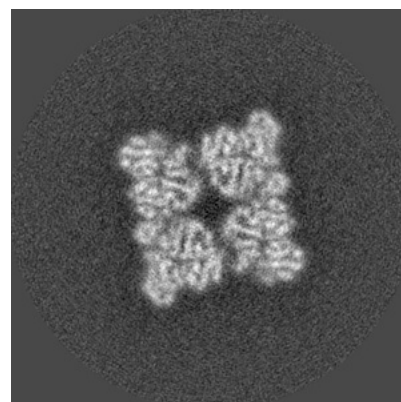
6.3.2 Raw map



X Index: 105



Y Index: 187

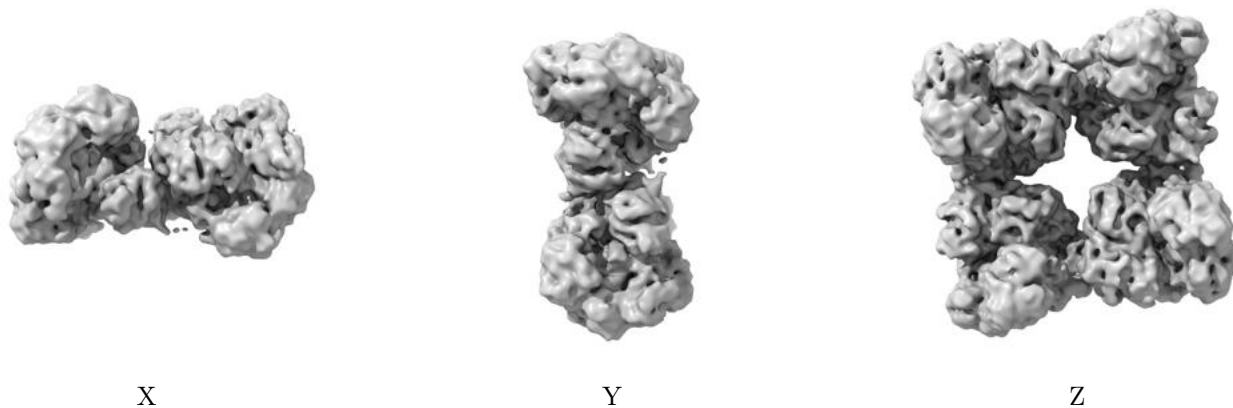


Z Index: 144

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

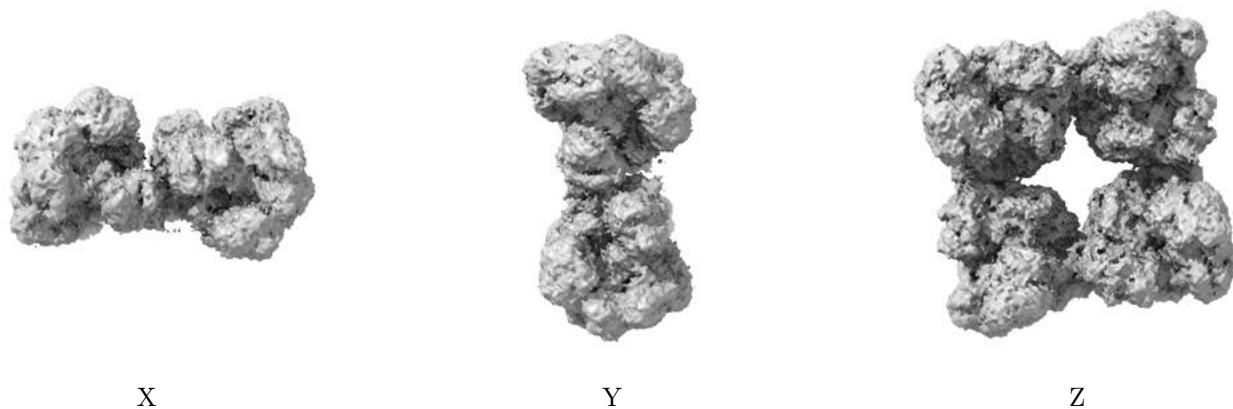
6.4 Orthogonal surface views [i](#)

6.4.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.012. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 Raw map



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

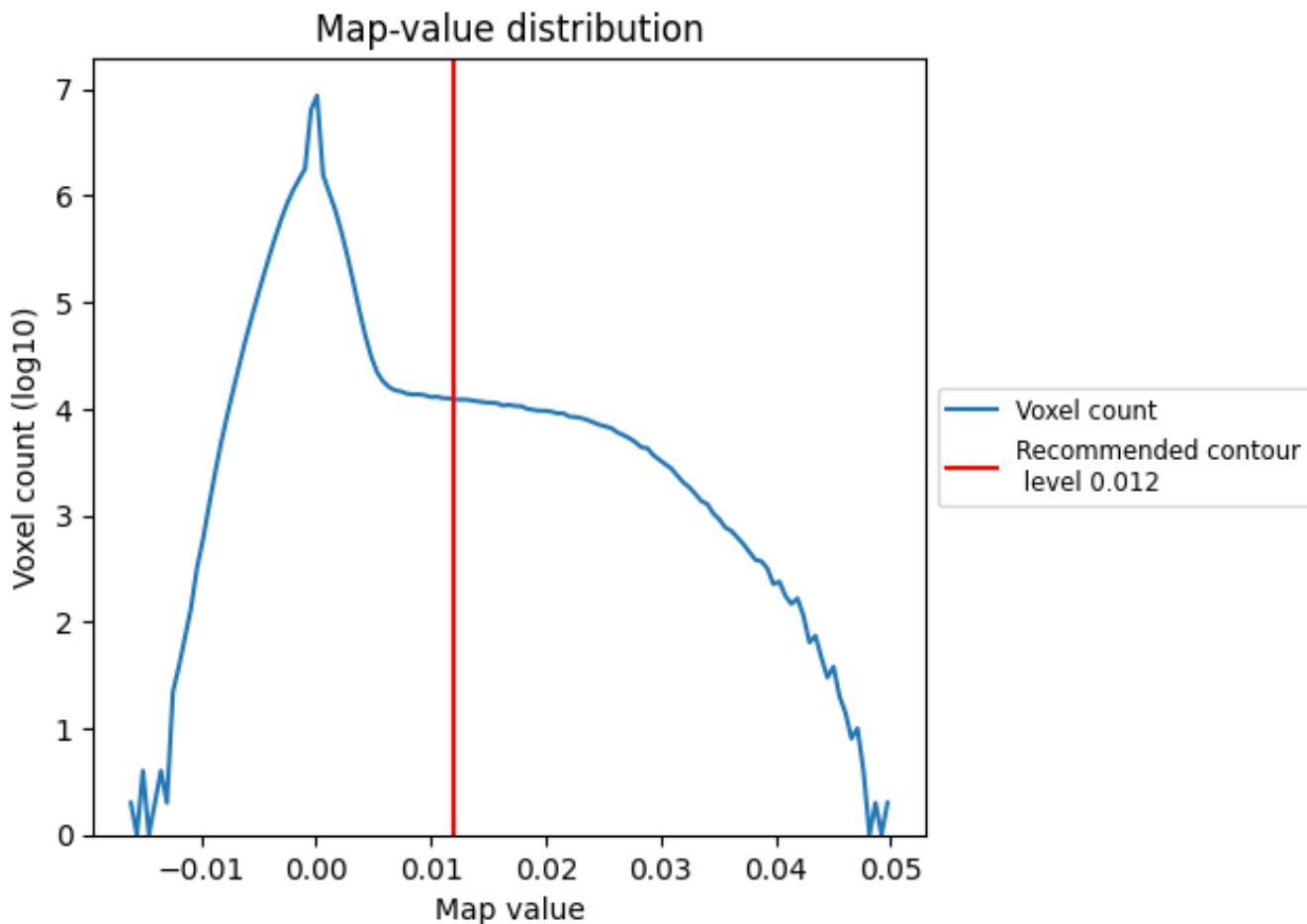
6.5 Mask visualisation [i](#)

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

7 Map analysis [i](#)

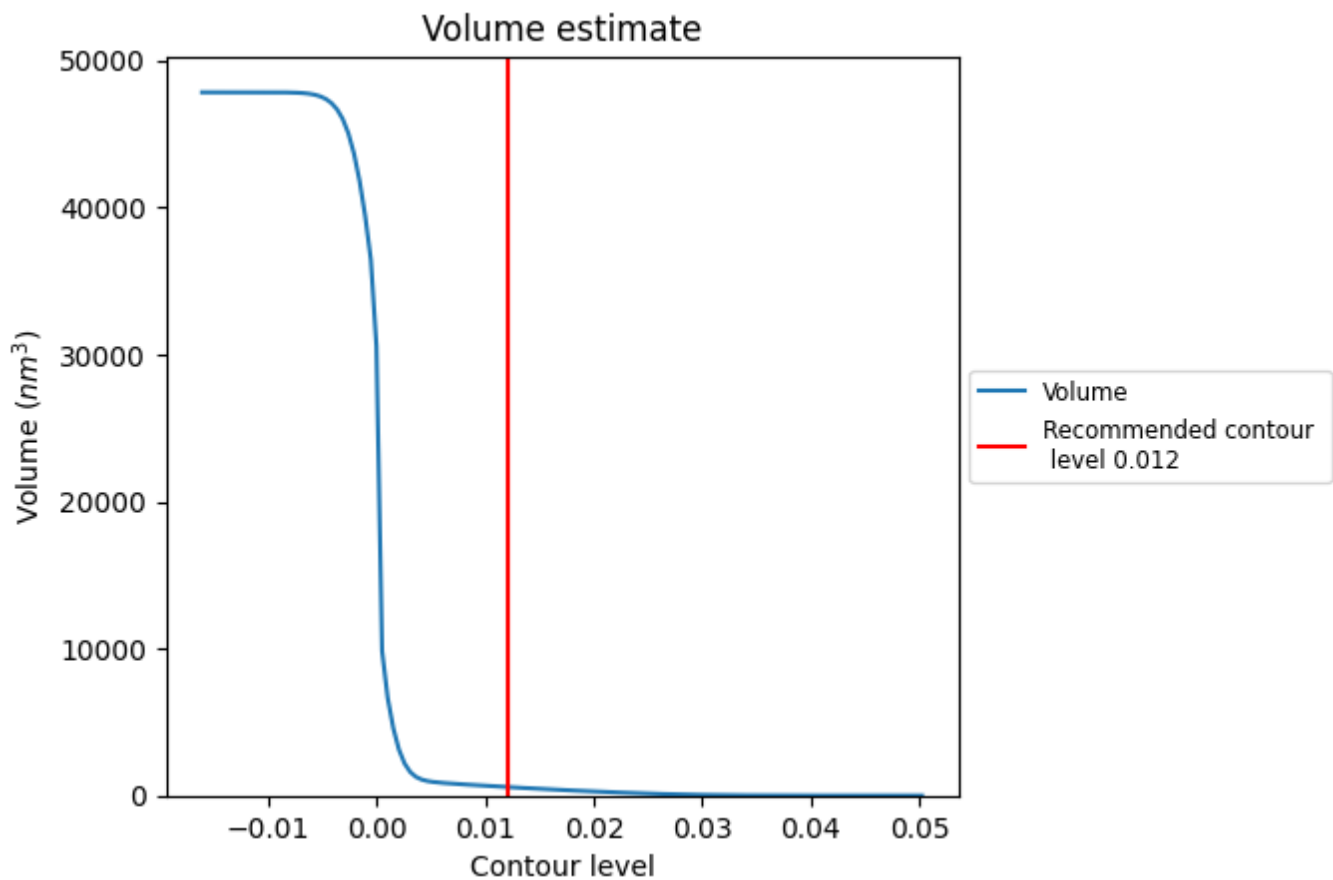
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

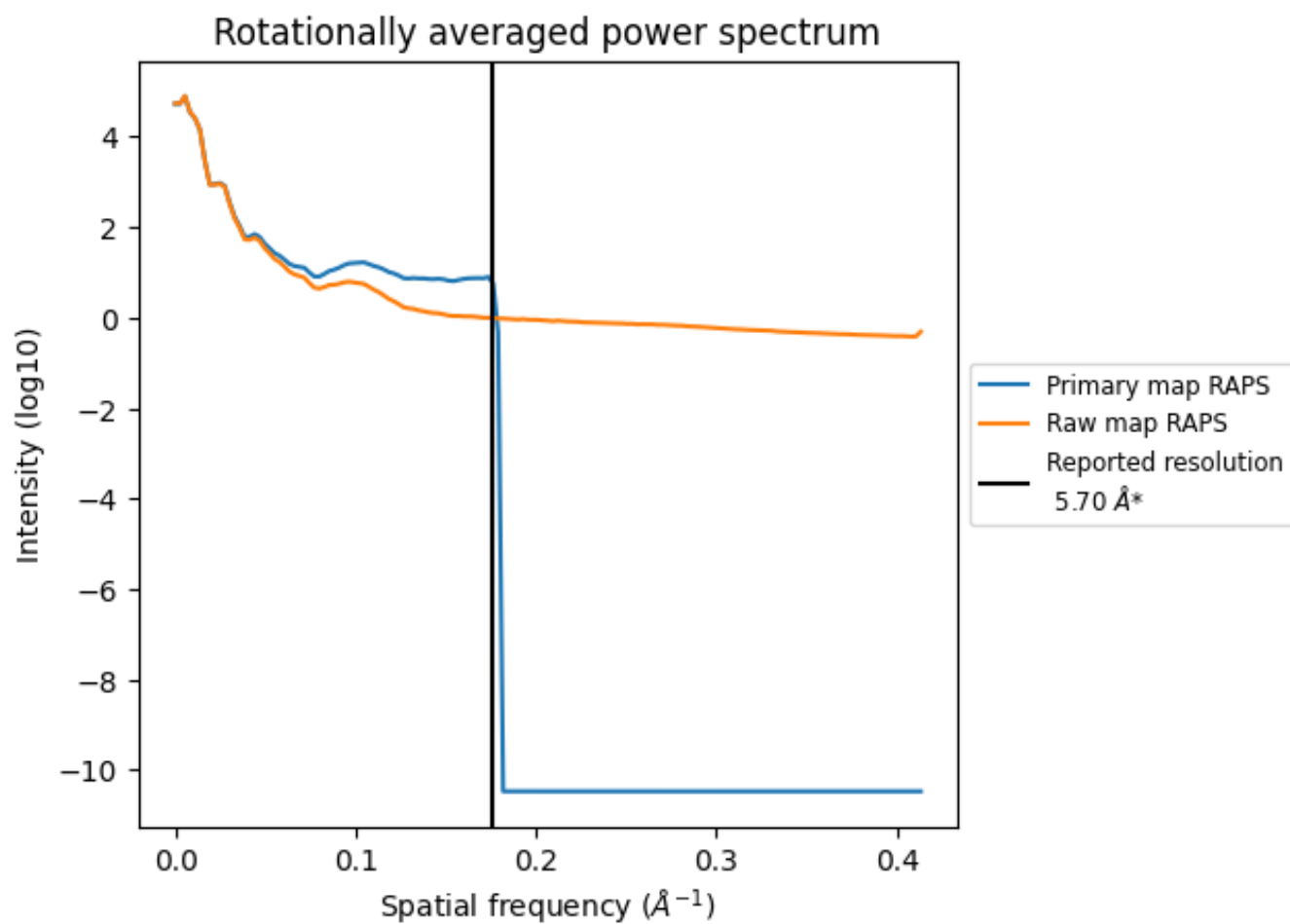
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 581 nm³; this corresponds to an approximate mass of 525 kDa.

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

7.3 Rotationally averaged power spectrum [i](#)

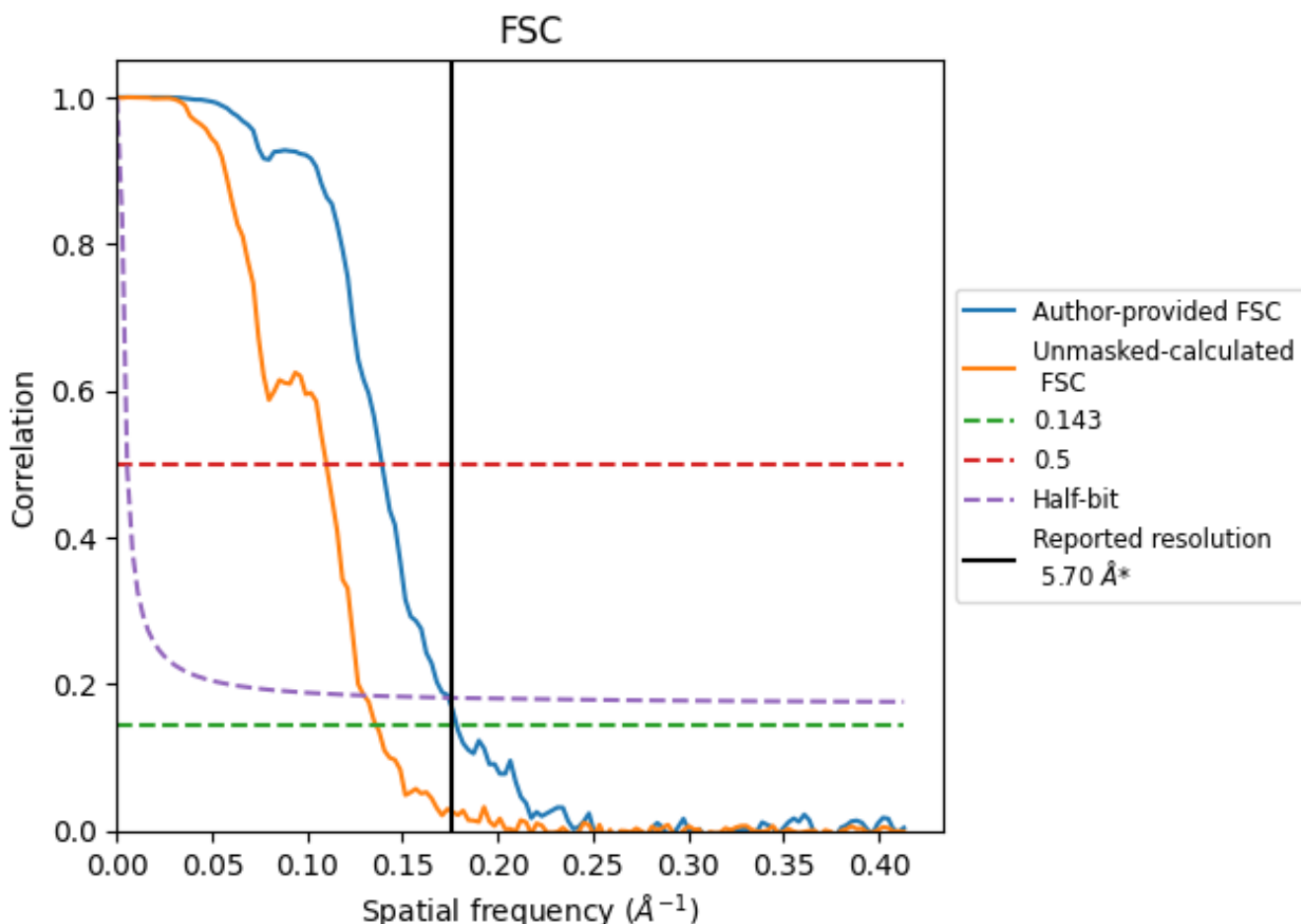


*Reported resolution corresponds to spatial frequency of 0.175 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.175 Å⁻¹

8.2 Resolution estimates [i](#)

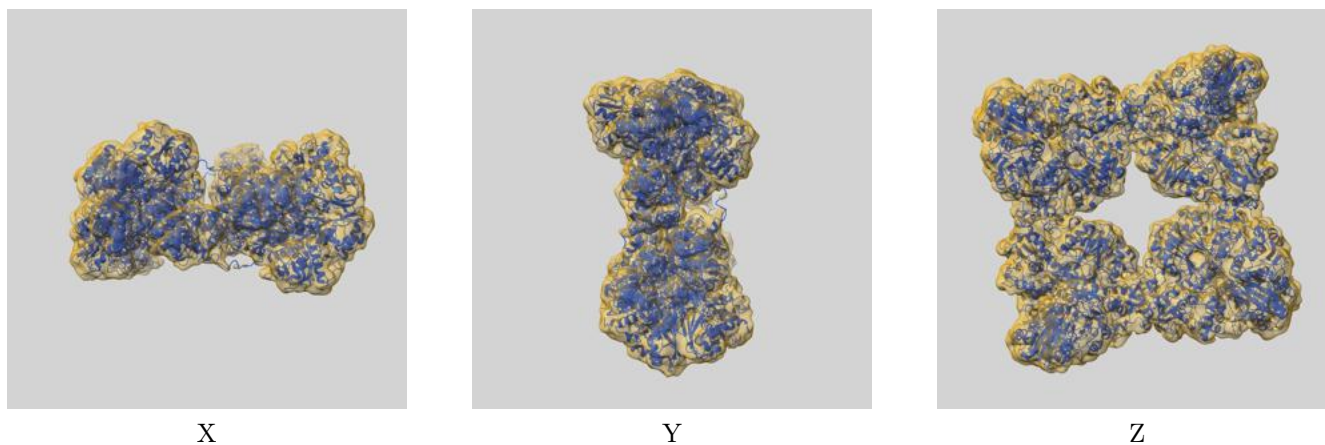
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	5.70	-	-
Author-provided FSC curve	5.61	7.18	5.74
Unmasked-calculated*	7.34	9.09	7.70

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 7.34 differs from the reported value 5.7 by more than 10 %

9 Map-model fit [i](#)

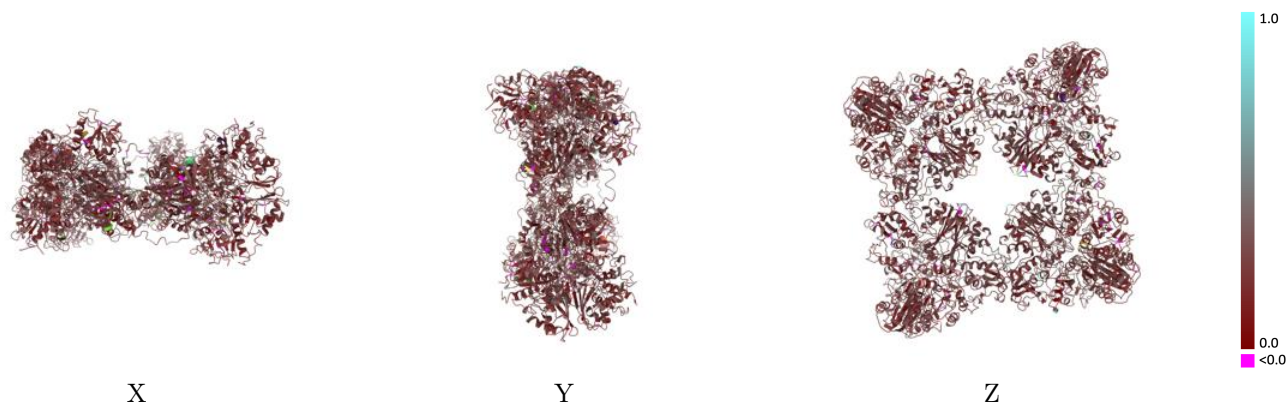
This section contains information regarding the fit between EMDB map EMD-13826 and PDB model 7Q55. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay [i](#)



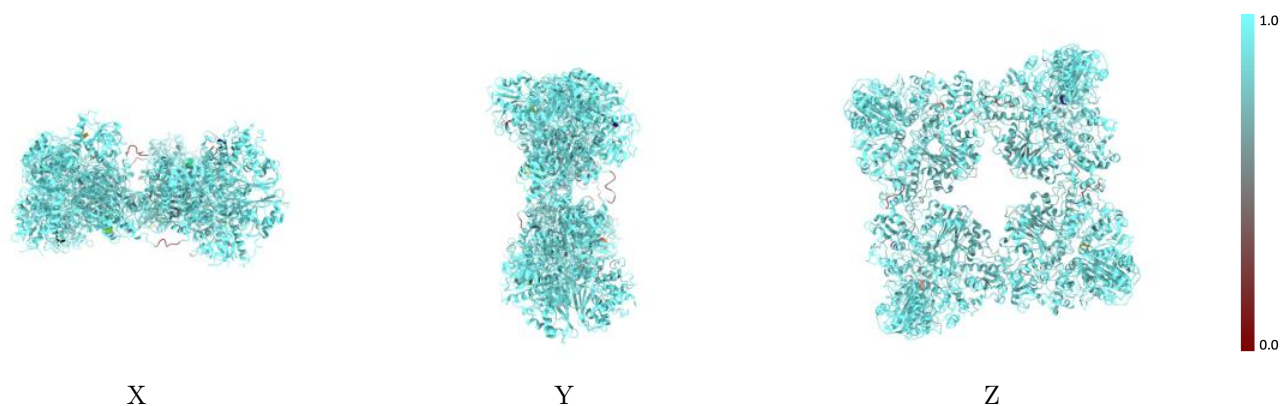
The images above show the 3D surface view of the map at the recommended contour level 0.012 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



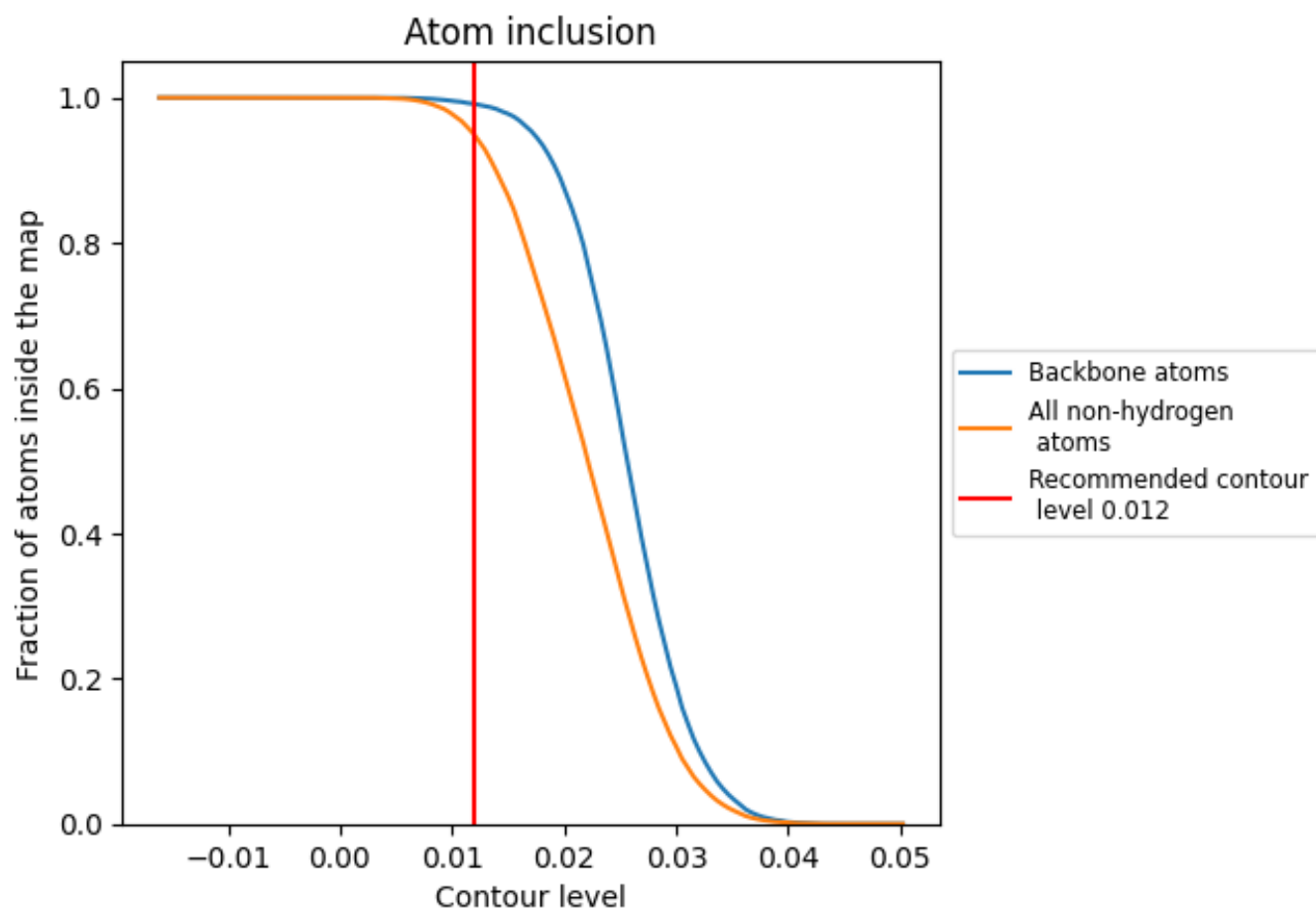
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.012).



































9.4 Atom inclusion [i](#)



At the recommended contour level, 99% of all backbone atoms, 95% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.012) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9489	 0.2620
A	 0.9370	 0.2700
B	 0.9658	 0.2560
C	 0.9326	 0.2690
D	 0.9670	 0.2510
E	 0.9315	 0.2700
F	 0.9623	 0.2550
G	 0.9381	 0.2690
H	 0.9631	 0.2600
I	 0.9296	 0.2680
J	 0.9678	 0.2540
K	 0.9359	 0.2710
L	 0.9682	 0.2520
O	 0.9322	 0.2680
P	 0.9651	 0.2520
Q	 0.9296	 0.2670
R	 0.9647	 0.2610

