



Full wwPDB NMR Structure Validation Report ⓘ

Feb 13, 2017 – 01:05 am GMT

PDB ID : 2M8L
Title : HIV capsid dimer structure
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Deposited on : 2013-05-23

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

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

A user guide is available at

<http://wwpdb.org/validation/2016/NMRValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

Cyrange	:	Kirchner and Güntert (2011)
NmrClust	:	Kelley et al. (1996)
MolProbity	:	4.02b-467
Percentile statistics	:	20161228.v01 (using entries in the PDB archive December 28th 2016)
RCI	:	v_1n_11_5_13_A (Berjanski et al., 2005)
PANAV	:	Wang et al. (2010)
ShiftChecker	:	trunk28760
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	recalc28949

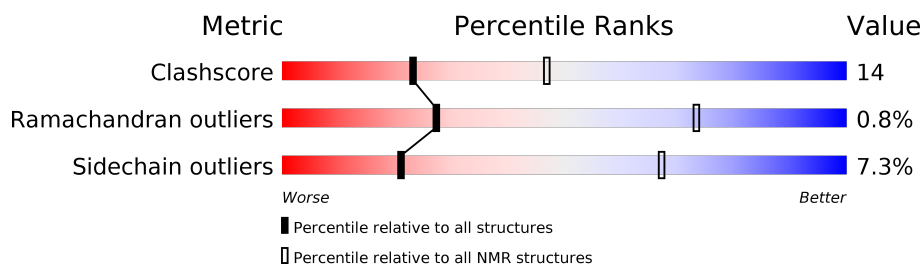
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

SOLUTION NMR

The overall completeness of chemical shifts assignment is 16%.

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)	NMR archive (#Entries)
Clashscore	125131	11601
Ramachandran outliers	121729	10391
Sidechain outliers	121581	10367

The table below summarises the geometric issues observed across the polymeric chains and their fit to the experimental data. The red, orange, yellow and green segments indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A cyan segment indicates the fraction of residues that are not part of the well-defined cores, and 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 $\leq 5\%$.

Mol	Chain	Length	Quality of chain
1	A	231	 73% 19% . . .
1	B	231	 71% 22% . . .

2 Ensemble composition and analysis

This entry contains 100 models. Model 95 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *lowest energy*.

The following residues are included in the computation of the global validation metrics.

Well-defined (core) protein residues			
Well-defined core	Residue range (total)	Backbone RMSD (Å)	Medoid model
1	A:1-A:145 (145)	0.03	95
2	A:150-A:221, B:150-B:221 (144)	0.03	1
3	B:1-B:145 (145)	0.03	38

Ill-defined regions of proteins are excluded from the global statistics.

Ligands and non-protein polymers are included in the analysis.

The models can be grouped into 11 clusters and 7 single-model clusters were found.

Cluster number	Models
1	1, 4, 5, 6, 9, 10, 11, 14, 15, 16, 19, 20, 25, 26, 29, 30, 32, 33, 36, 39, 40, 41, 44, 45, 48, 53, 54, 56, 61, 64, 65, 67, 68, 71, 77, 78, 81, 84, 87, 91, 94, 95
2	7, 12, 22, 27, 42, 47, 55, 57, 62, 66, 72, 80, 86, 96
3	3, 8, 18, 28, 38, 43, 51
4	24, 31, 49, 52, 59, 74, 76
5	34, 69, 79, 83, 89
6	2, 17, 37, 82
7	23, 58, 73, 98
8	21, 60, 75, 99
9	13, 63
10	70, 85
11	50, 97
Single-model clusters	35; 46; 88; 90; 92; 93; 100

3 Entry composition [i](#)

There is only 1 type of molecule in this entry. The entry contains 6914 atoms, of which 3464 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Capsid protein p24.

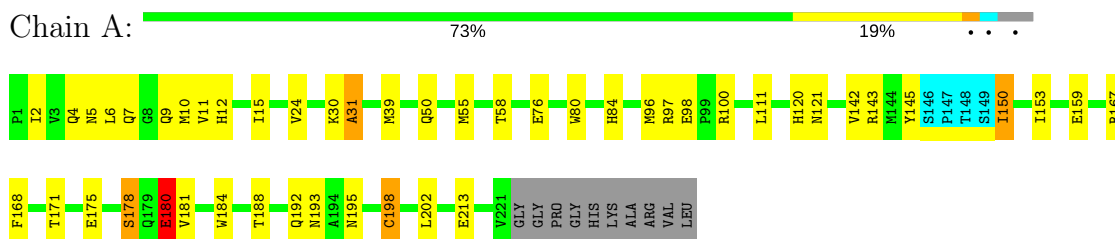
Mol	Chain	Residues	Atoms						Trace
1	A	221	Total	C	H	N	O	S	0
			3457	1088	1732	301	323	13	
1	B	221	Total	C	H	N	O	S	0
			3457	1088	1732	301	323	13	

4 Residue-property plots

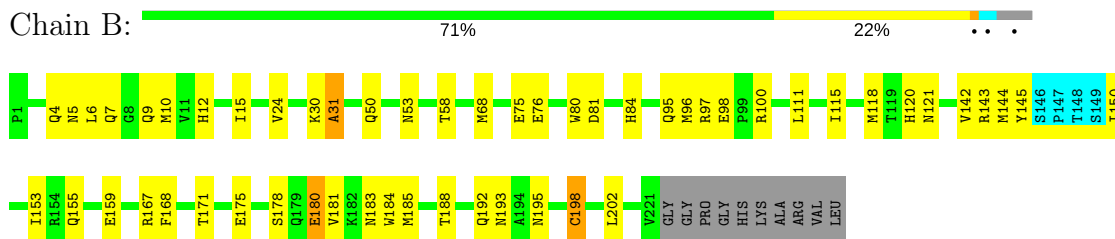
4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA and DNA chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-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. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

- Molecule 1: Capsid protein p24



- Molecule 1: Capsid protein p24

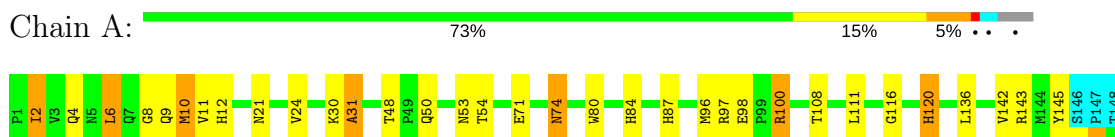


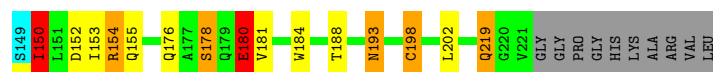
4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

4.2.1 Score per residue for model 1

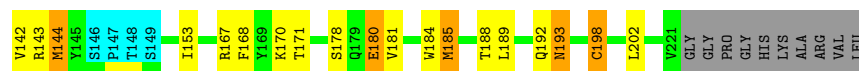
- Molecule 1: Capsid protein p24





• Molecule 1: Capsid protein p24

Chain B: 70% 17% 6% . . .



4.2.2 Score per residue for model 2

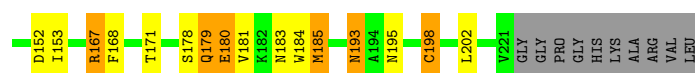
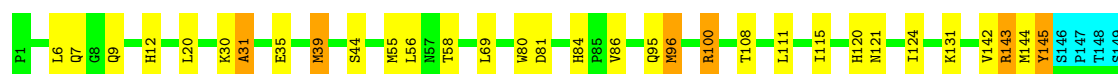
• Molecule 1: Capsid protein p24

Chain A: 66% 24% . . .



• Molecule 1: Capsid protein p24

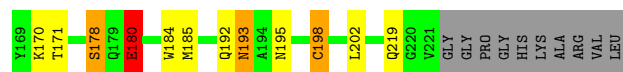
Chain B: 73% 16% 5% . . .



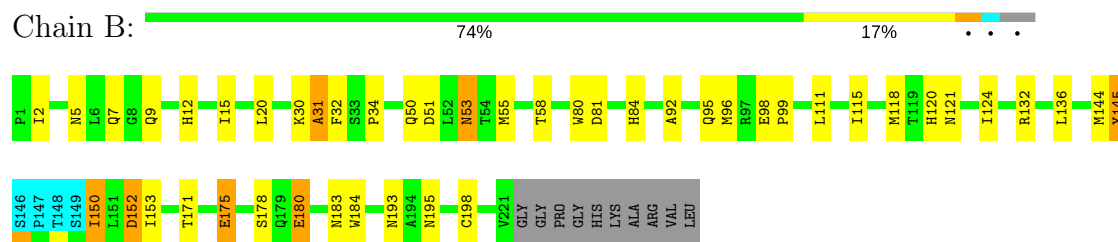
4.2.3 Score per residue for model 3

• Molecule 1: Capsid protein p24

Chain A: 74% 15% . . .

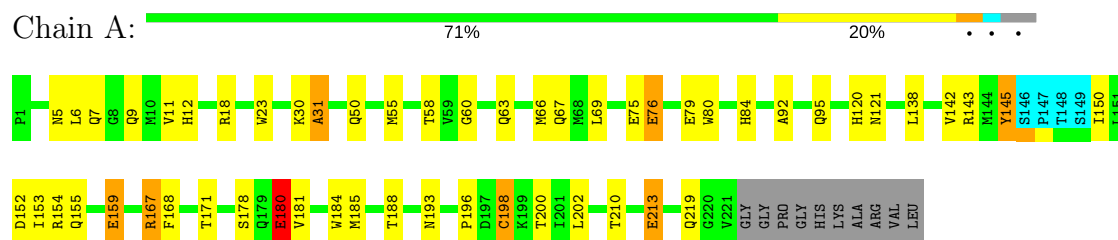


• Molecule 1: Capsid protein p24

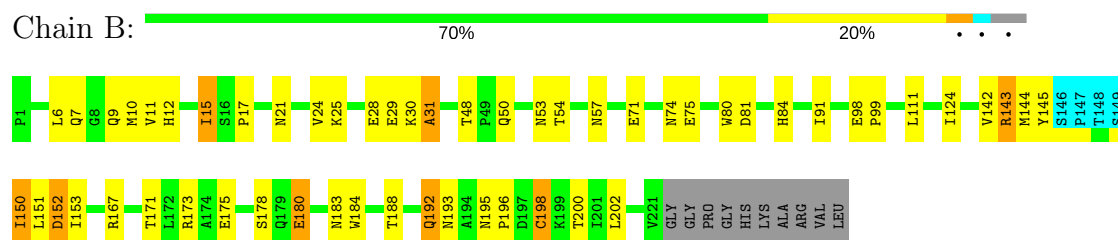


4.2.4 Score per residue for model 4

- Molecule 1: Capsid protein p24

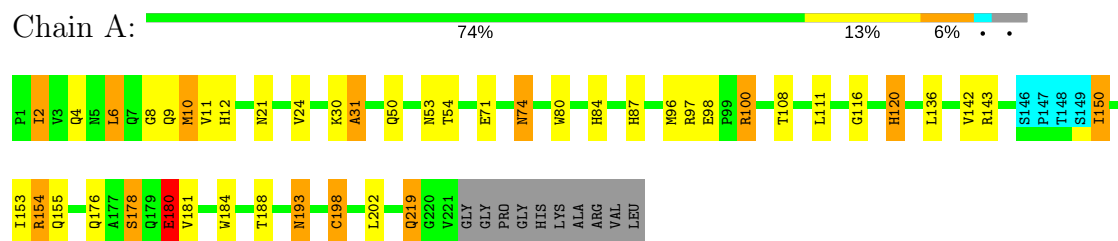


- Molecule 1: Capsid protein p24

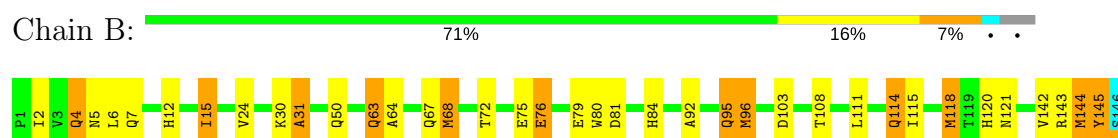


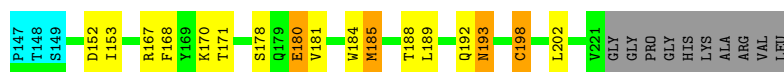
4.2.5 Score per residue for model 5

- Molecule 1: Capsid protein p24



- Molecule 1: Capsid protein p24

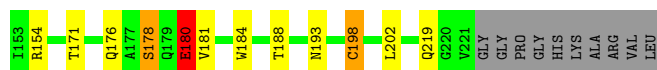
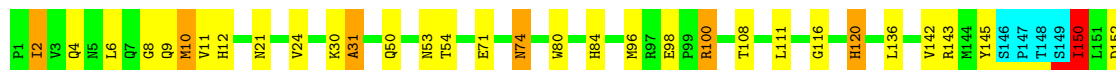




4.2.6 Score per residue for model 6

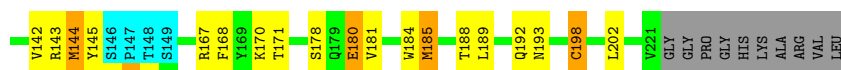
- Molecule 1: Capsid protein p24

Chain A: 75% 15% . . .



- Molecule 1: Capsid protein p24

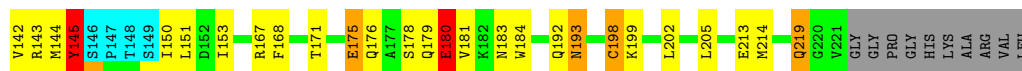
Chain B: 70% 18% 6% . .



4.2.7 Score per residue for model 7

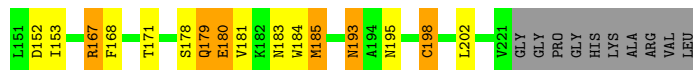
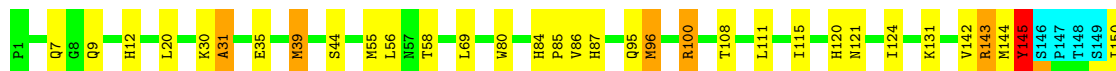
- Molecule 1: Capsid protein p24

Chain A: 67% 22% . . .



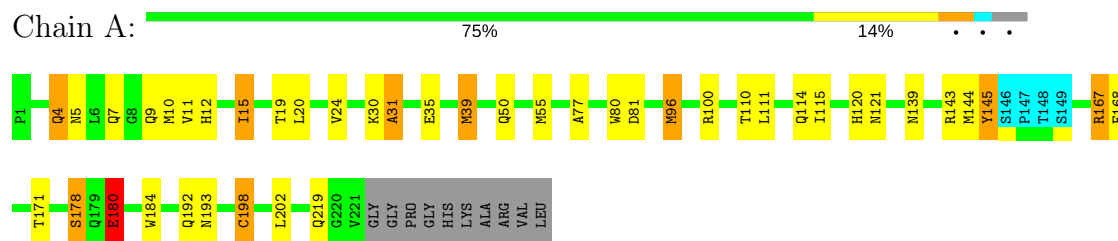
- Molecule 1: Capsid protein p24

Chain B: 73% 16% 5% . .

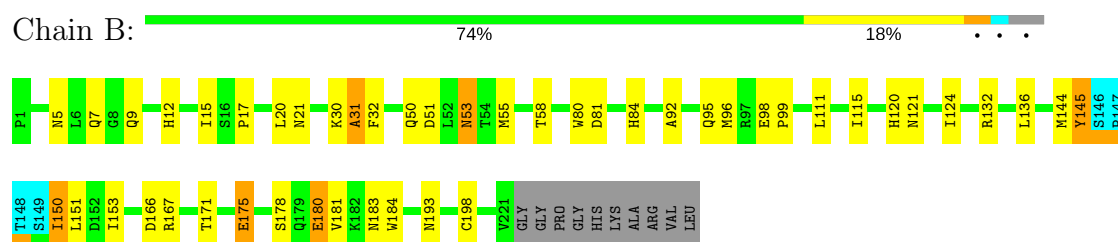


4.2.8 Score per residue for model 8

- Molecule 1: Capsid protein p24

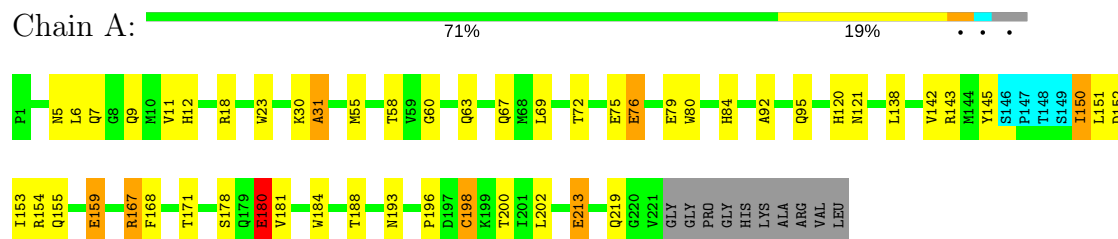


- Molecule 1: Capsid protein p24

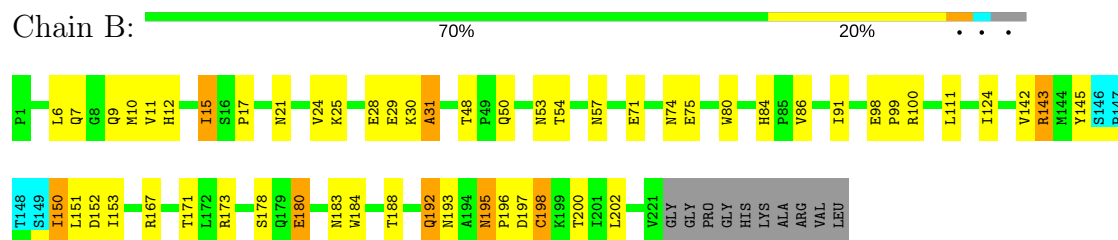


4.2.9 Score per residue for model 9

- Molecule 1: Capsid protein p24

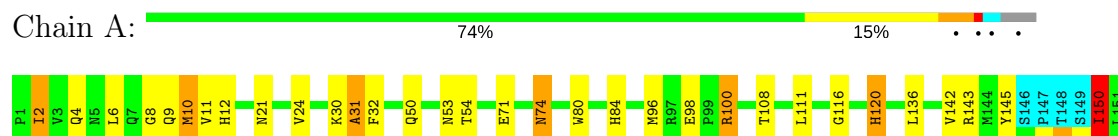


- Molecule 1: Capsid protein p24

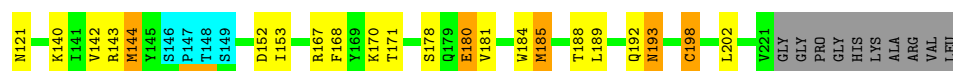
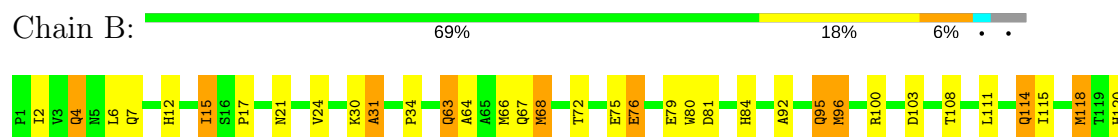


4.2.10 Score per residue for model 10

- Molecule 1: Capsid protein p24

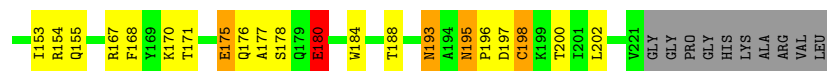
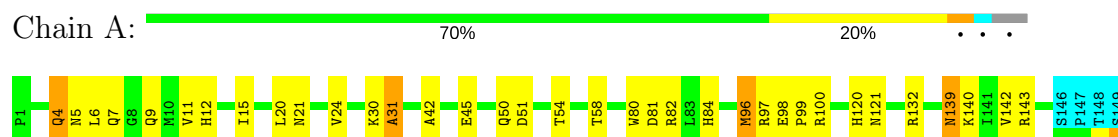


- Molecule 1: Capsid protein p24

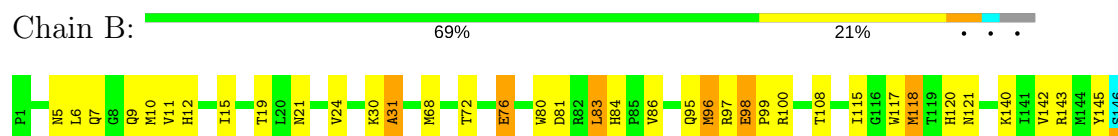


4.2.11 Score per residue for model 11

- Molecule 1: Capsid protein p24

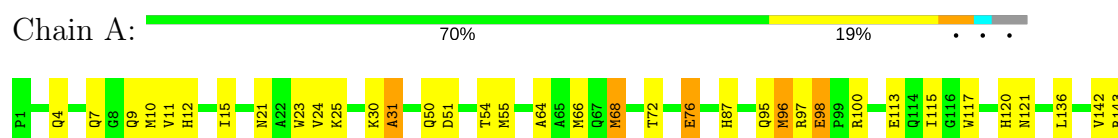


- Molecule 1: Capsid protein p24



4.2.12 Score per residue for model 12

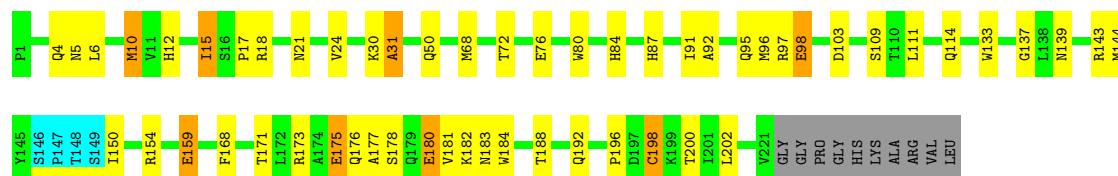
- Molecule 1: Capsid protein p24





• Molecule 1: Capsid protein p24

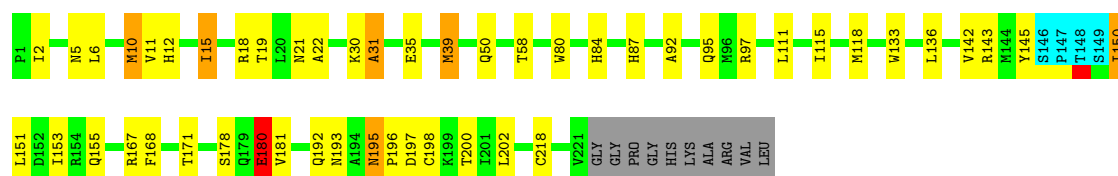
Chain B: 70% 20%



4.2.13 Score per residue for model 13

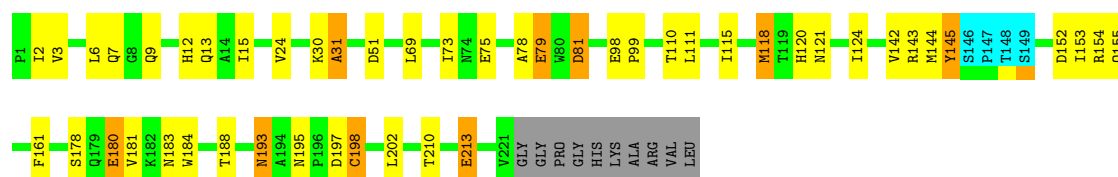
• Molecule 1: Capsid protein p24

Chain A: 72% 19%



• Molecule 1: Capsid protein p24

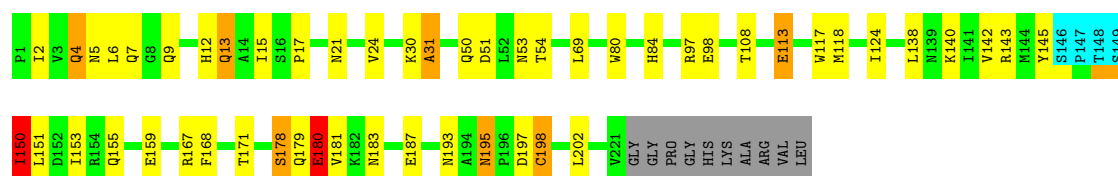
Chain B: 73% 17%



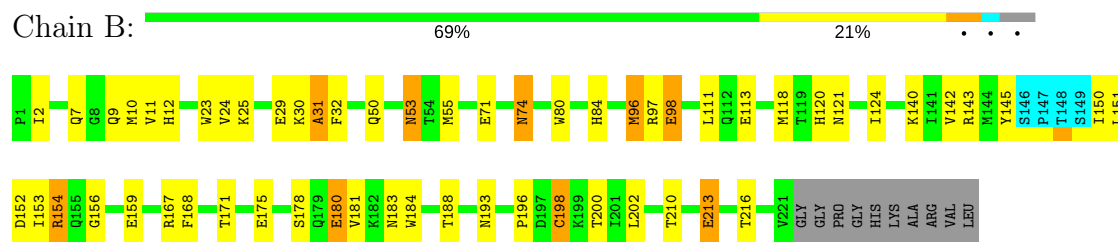
4.2.14 Score per residue for model 14

• Molecule 1: Capsid protein p24

Chain A: 71% 19%

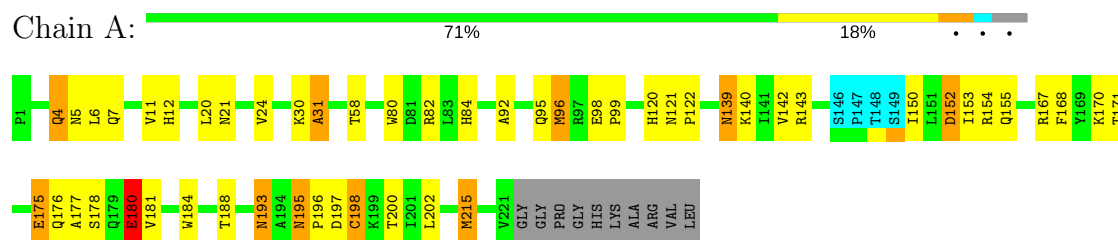


• Molecule 1: Capsid protein p24

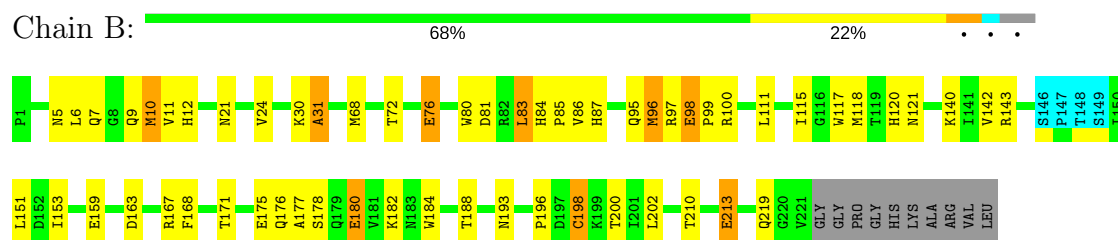


4.2.15 Score per residue for model 15

- Molecule 1: Capsid protein p24

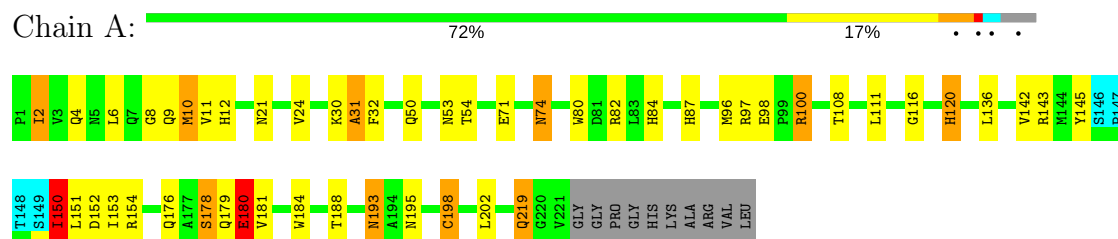


- Molecule 1: Capsid protein p24

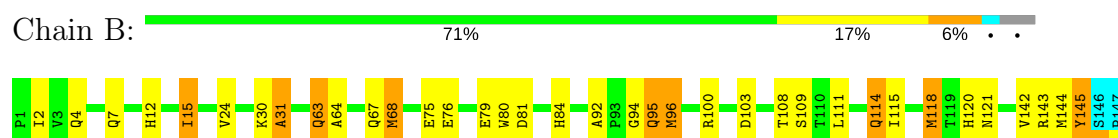


4.2.16 Score per residue for model 16

- Molecule 1: Capsid protein p24



- Molecule 1: Capsid protein p24

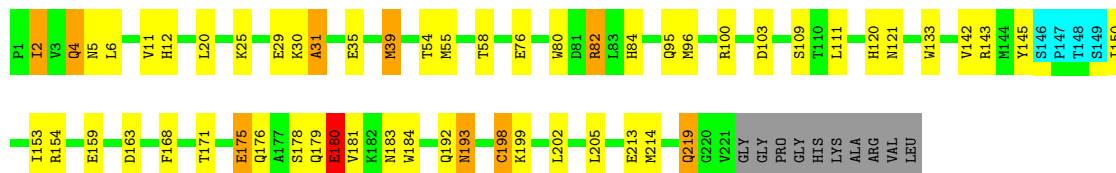




4.2.17 Score per residue for model 17

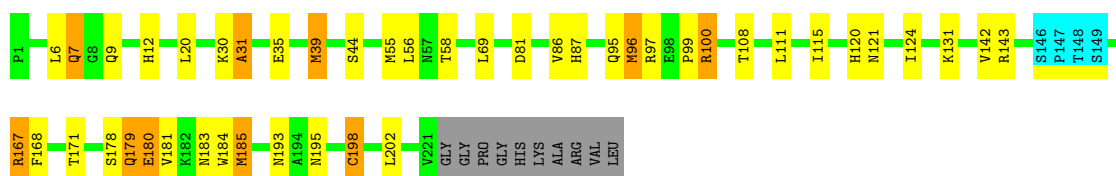
- Molecule 1: Capsid protein p24

Chain A: 70% 20%



- Molecule 1: Capsid protein p24

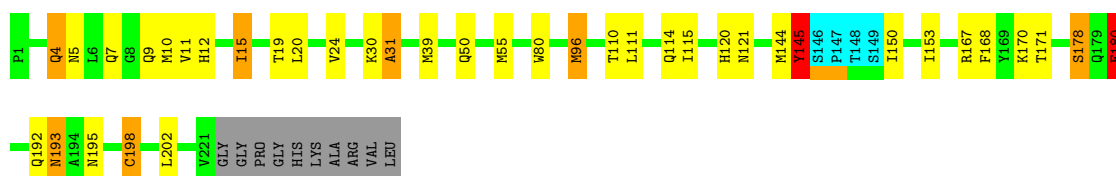
Chain B: 74% 15%



4.2.18 Score per residue for model 18

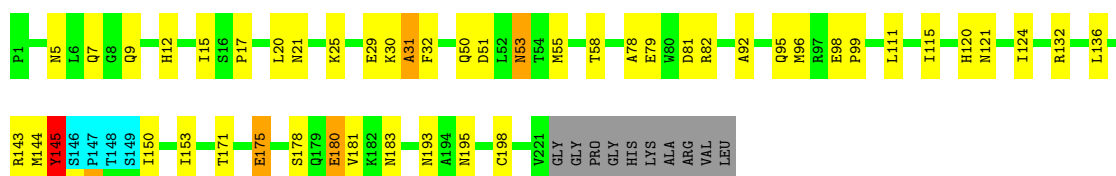
- Molecule 1: Capsid protein p24

Chain A: 77% 13%



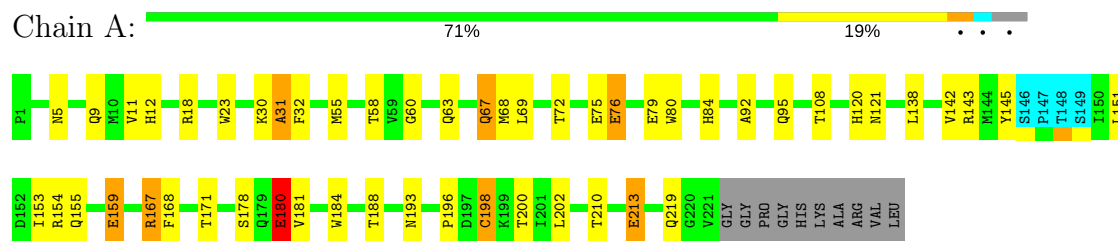
- Molecule 1: Capsid protein p24

Chain B: 73% 19%

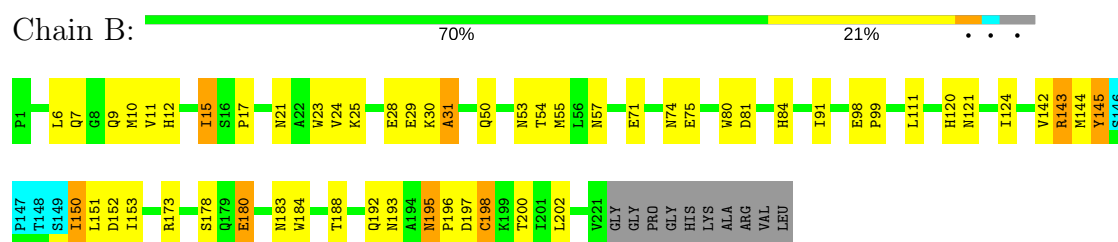


4.2.19 Score per residue for model 19

- Molecule 1: Capsid protein p24

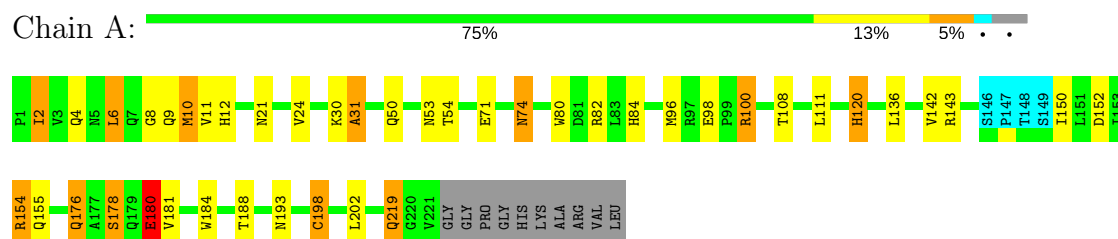


- Molecule 1: Capsid protein p24

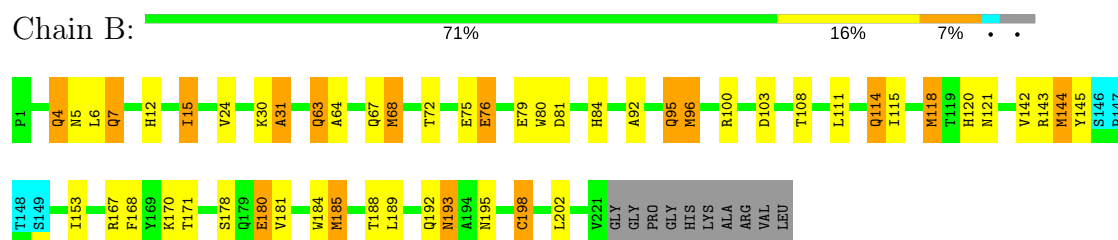


4.2.20 Score per residue for model 20

- Molecule 1: Capsid protein p24

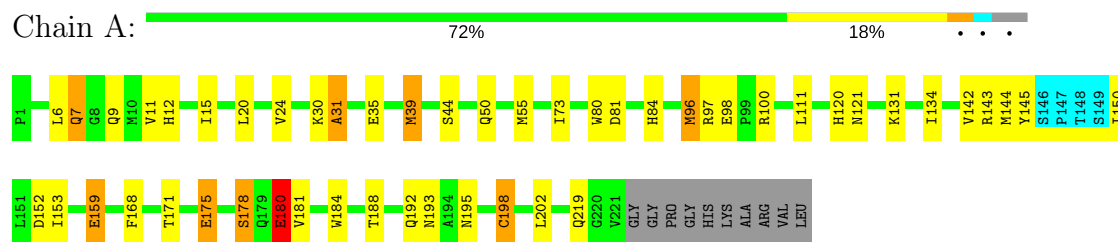


- Molecule 1: Capsid protein p24

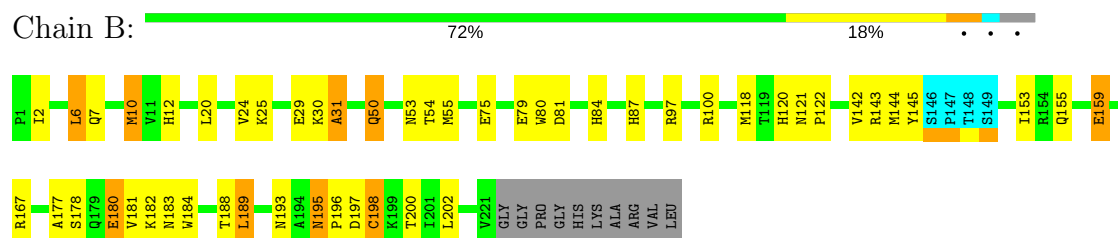


4.2.21 Score per residue for model 21

- Molecule 1: Capsid protein p24

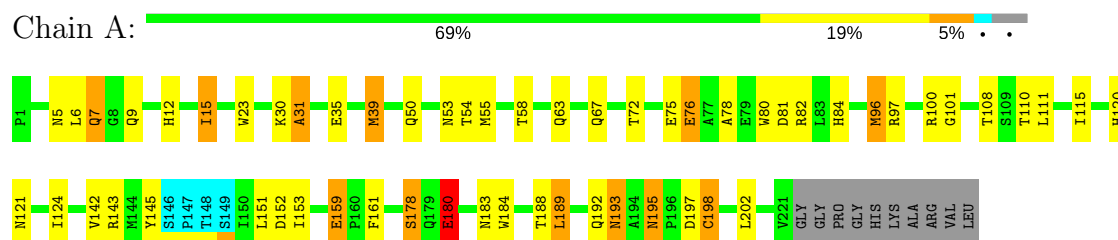


- Molecule 1: Capsid protein p24

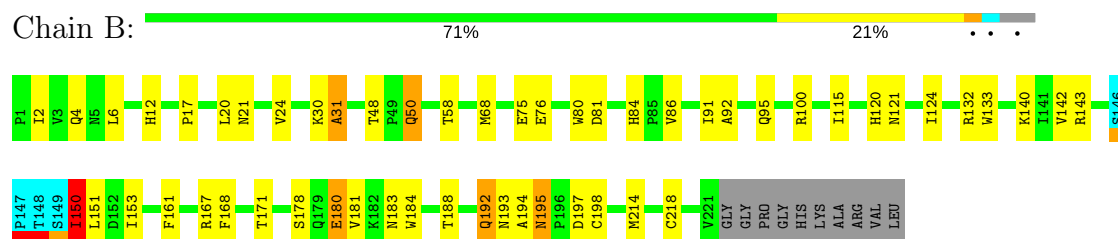


4.2.22 Score per residue for model 22

- Molecule 1: Capsid protein p24

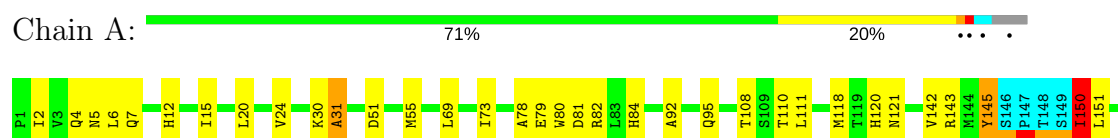


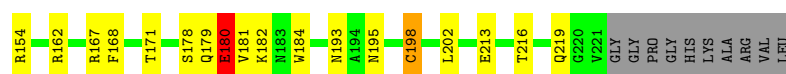
- Molecule 1: Capsid protein p24



4.2.23 Score per residue for model 23

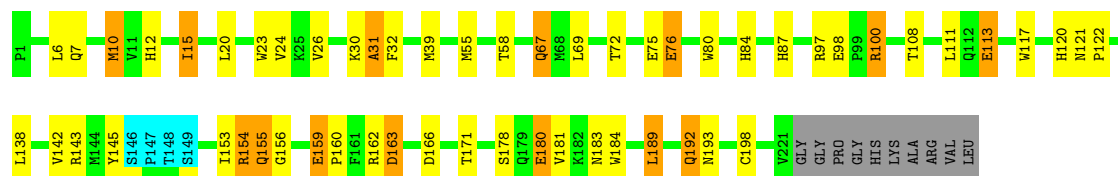
- Molecule 1: Capsid protein p24





• Molecule 1: Capsid protein p24

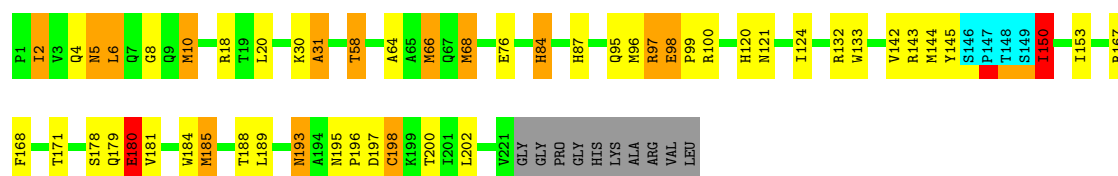
Chain B: 70% 18% 6% . .



4.2.24 Score per residue for model 24

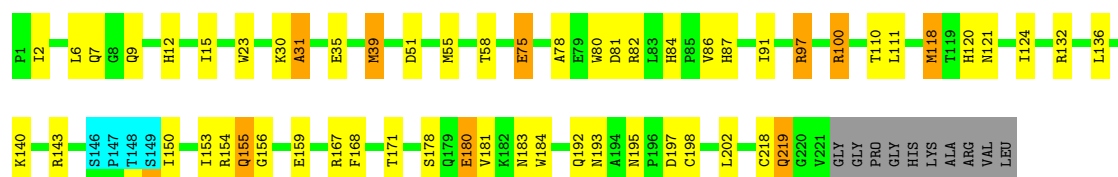
• Molecule 1: Capsid protein p24

Chain A: 71% 16% 6% . . .



• Molecule 1: Capsid protein p24

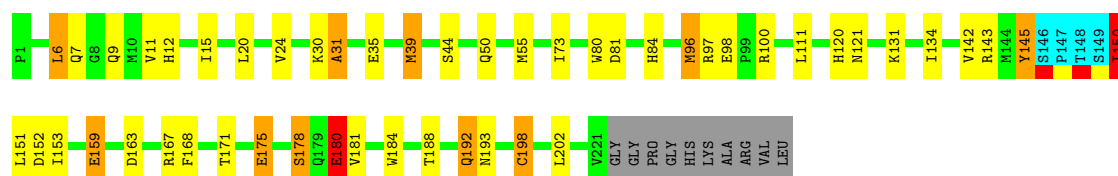
Chain B: 69% 21% . . .



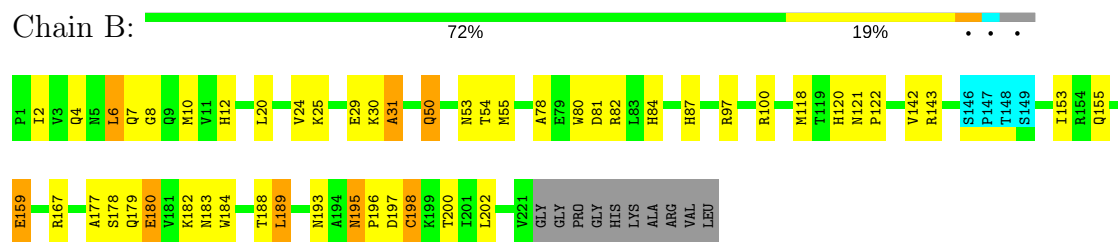
4.2.25 Score per residue for model 25

• Molecule 1: Capsid protein p24

Chain A: 72% 16% . . .

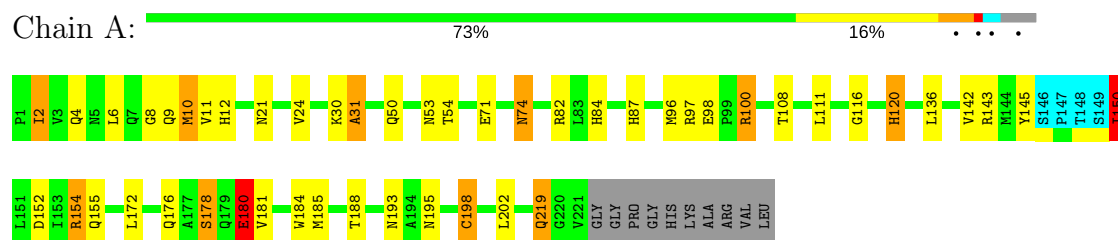


• Molecule 1: Capsid protein p24

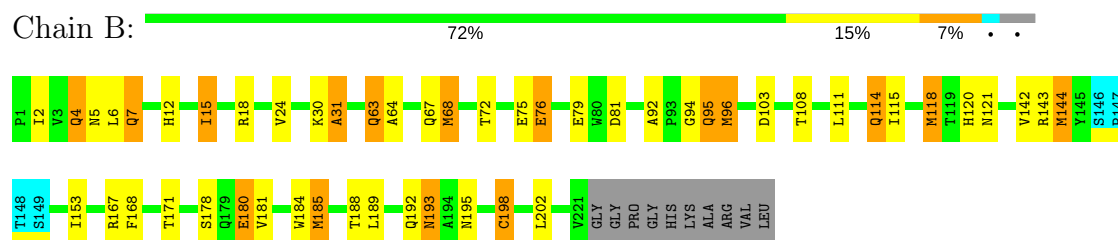


4.2.26 Score per residue for model 26

- Molecule 1: Capsid protein p24

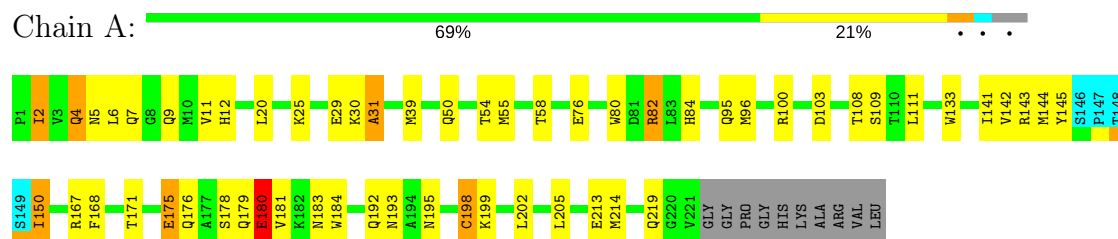


- Molecule 1: Capsid protein p24

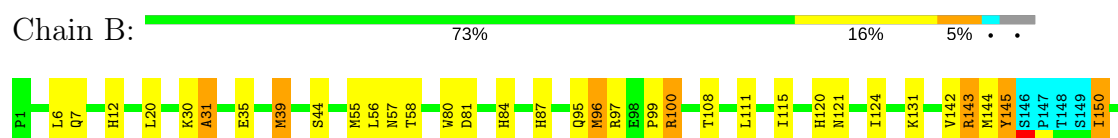


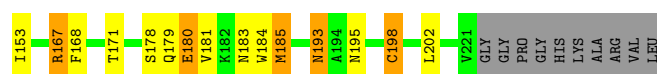
4.2.27 Score per residue for model 27

- Molecule 1: Capsid protein p24



- Molecule 1: Capsid protein p24

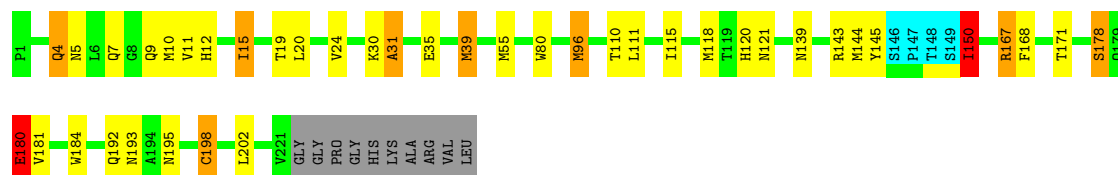




4.2.28 Score per residue for model 28

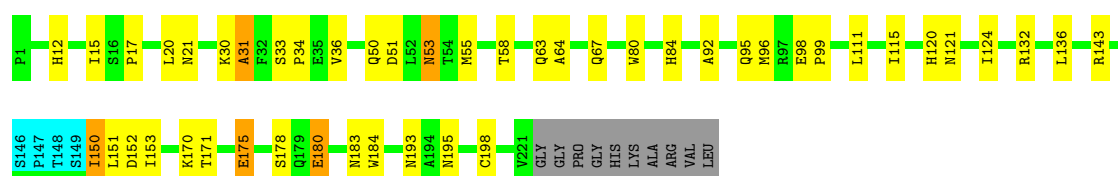
- Molecule 1: Capsid protein p24

Chain A: 76% 13% . . .



- Molecule 1: Capsid protein p24

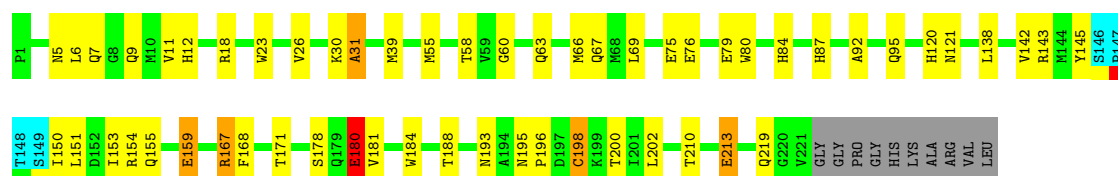
Chain B: 74% 18% . . .



4.2.29 Score per residue for model 29

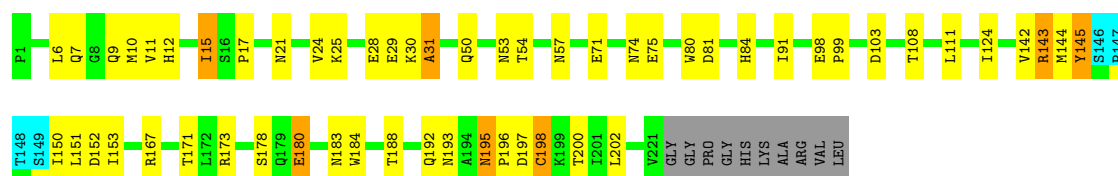
- Molecule 1: Capsid protein p24

Chain A: 70% 22% . . .



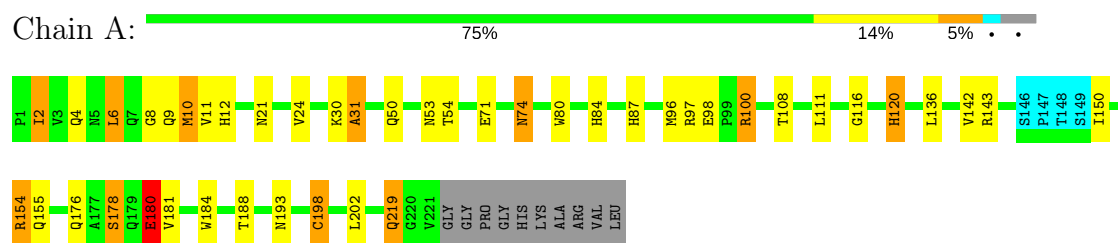
- Molecule 1: Capsid protein p24

Chain B: 70% 21% . . .

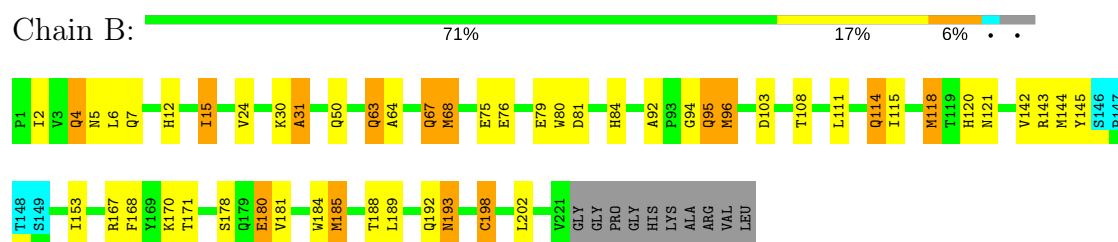


4.2.30 Score per residue for model 30

- Molecule 1: Capsid protein p24

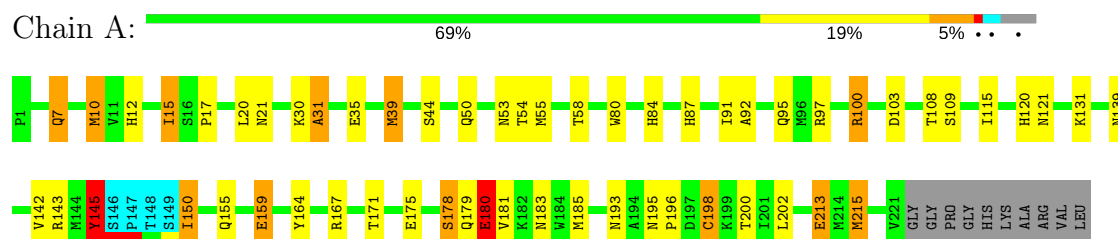


- Molecule 1: Capsid protein p24

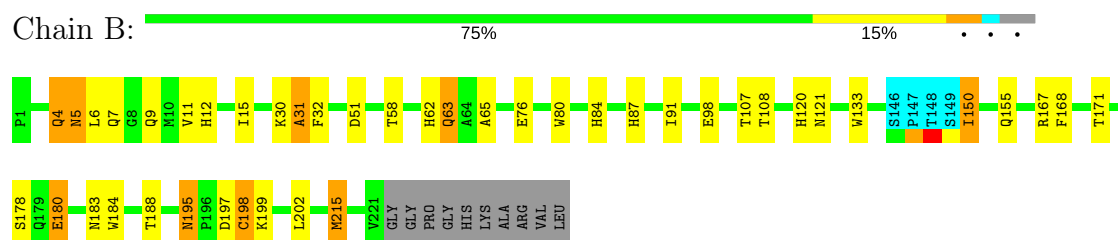


4.2.31 Score per residue for model 31

- Molecule 1: Capsid protein p24

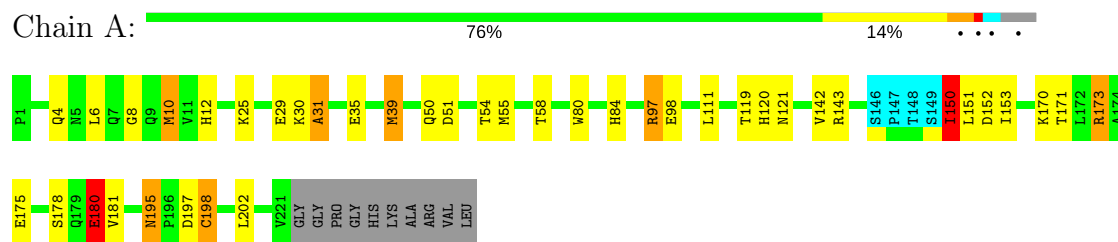


- Molecule 1: Capsid protein p24

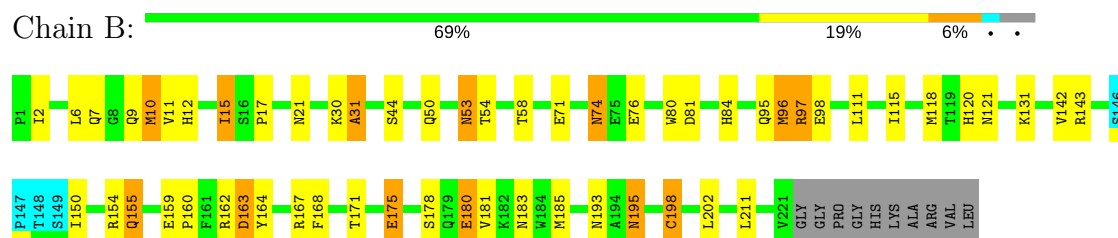


4.2.32 Score per residue for model 32

- Molecule 1: Capsid protein p24

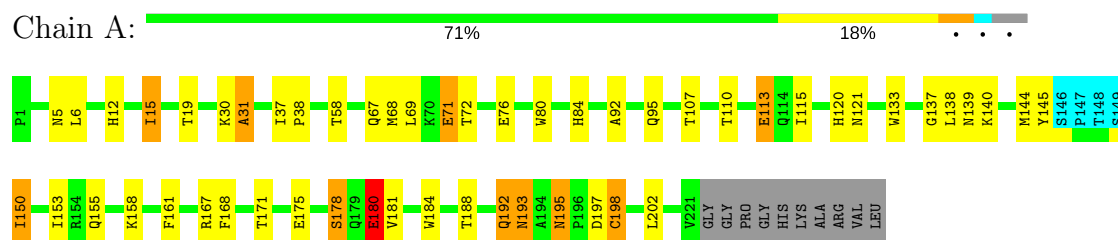


- Molecule 1: Capsid protein p24

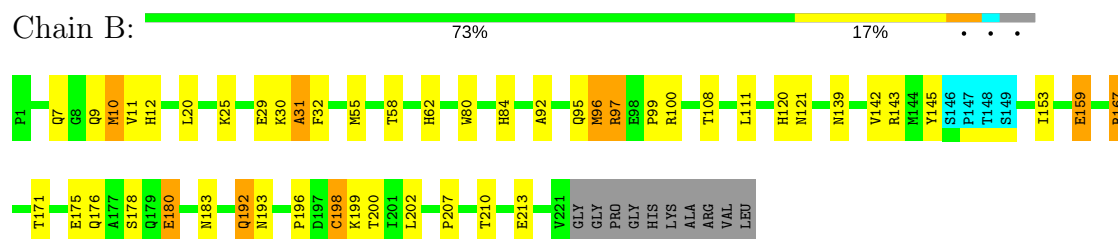


4.2.33 Score per residue for model 33

- Molecule 1: Capsid protein p24

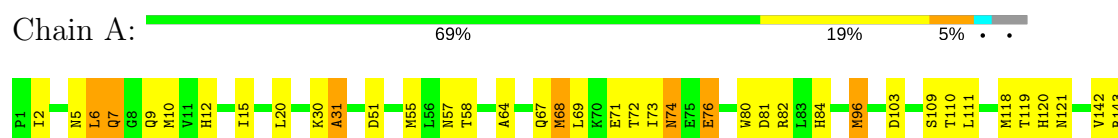


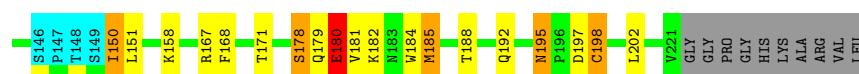
- Molecule 1: Capsid protein p24



4.2.34 Score per residue for model 34

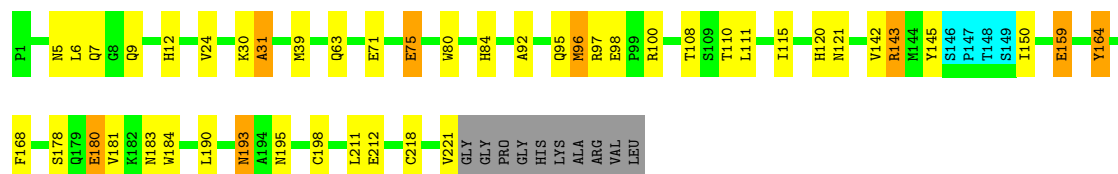
- Molecule 1: Capsid protein p24





- Molecule 1: Capsid protein p24

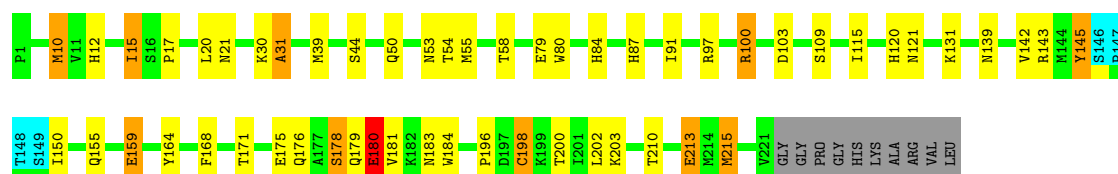
Chain B:



4.2.35 Score per residue for model 35

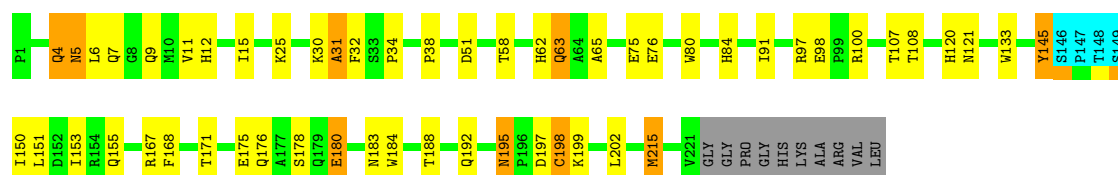
- Molecule 1: Capsid protein p24

Chain A:



- Molecule 1: Capsid protein p24

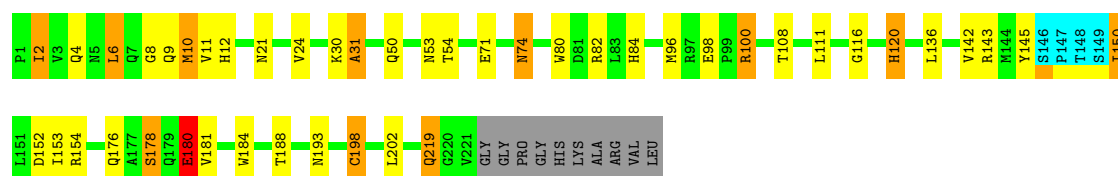
Chain B:



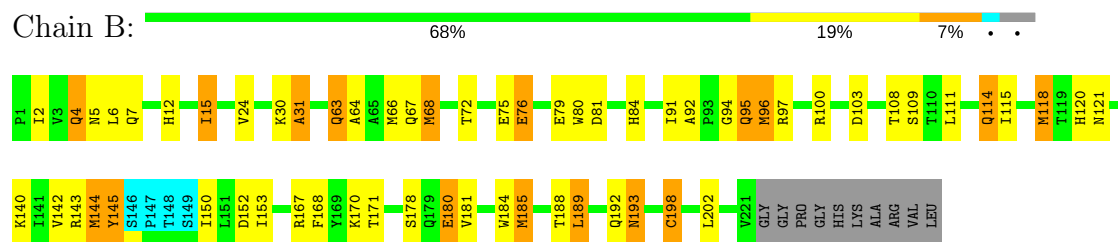
4.2.36 Score per residue for model 36

- Molecule 1: Capsid protein p24

Chain A:

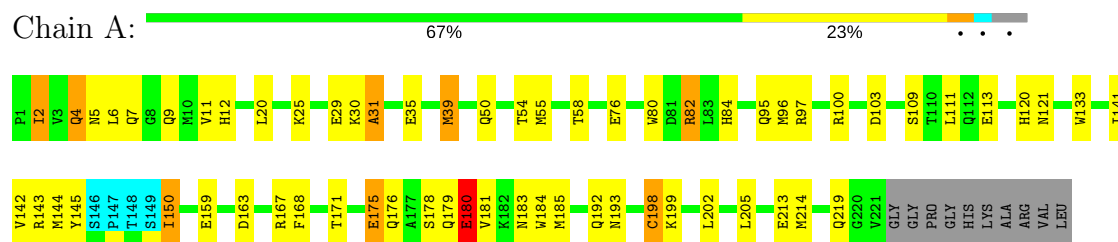


- Molecule 1: Capsid protein p24

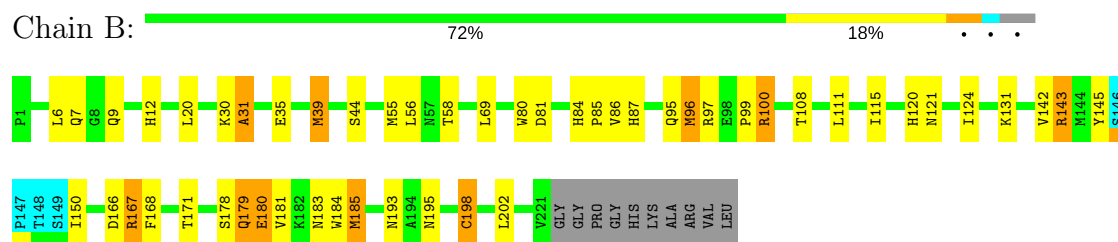


4.2.37 Score per residue for model 37

- Molecule 1: Capsid protein p24

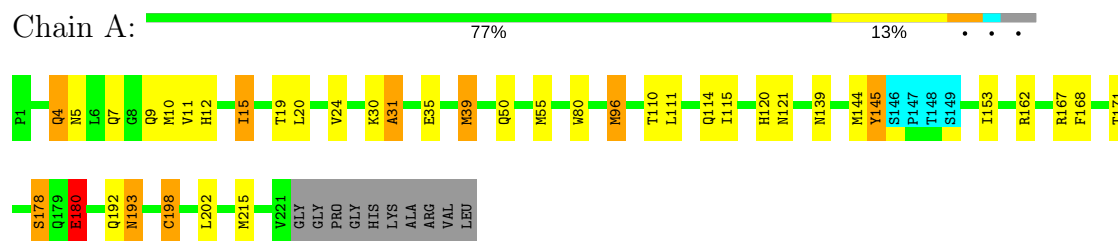


- Molecule 1: Capsid protein p24

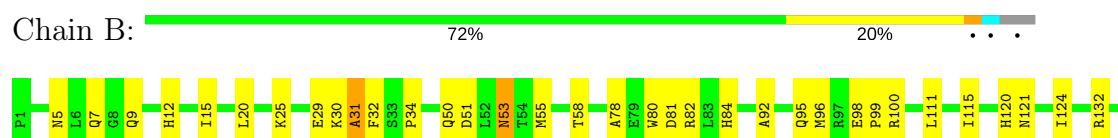


4.2.38 Score per residue for model 38

- Molecule 1: Capsid protein p24



- Molecule 1: Capsid protein p24

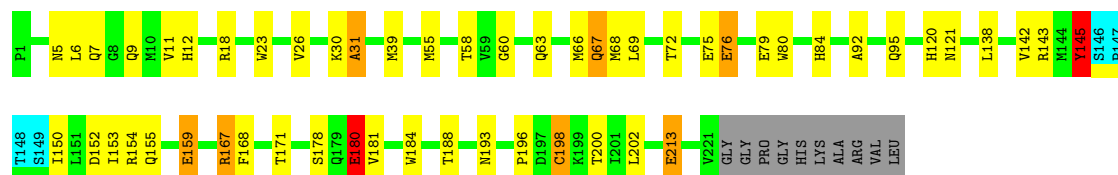




4.2.39 Score per residue for model 39

- Molecule 1: Capsid protein p24

Chain A: 71% 19% . . .



- Molecule 1: Capsid protein p24

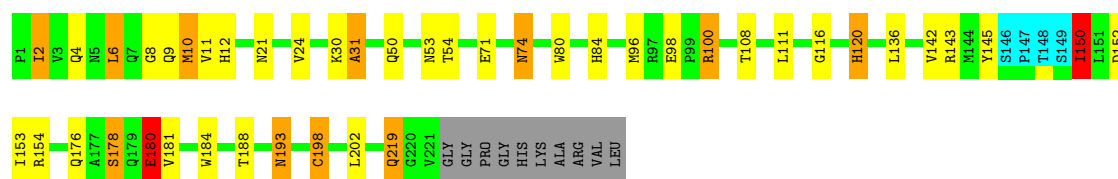
Chain B: 70% 21% . . .



4.2.40 Score per residue for model 40

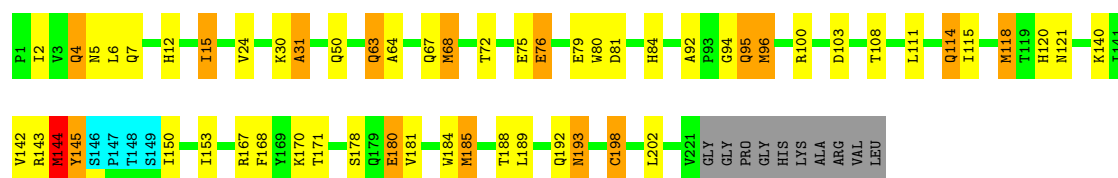
- Molecule 1: Capsid protein p24

Chain A: 75% 13% 5% . . .



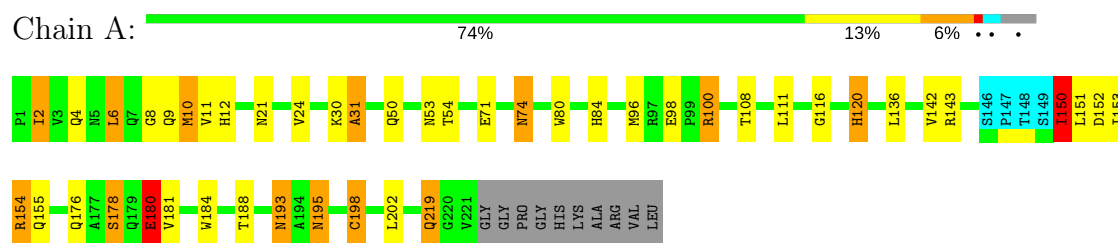
- Molecule 1: Capsid protein p24

Chain B: 69% 18% 6% . . .

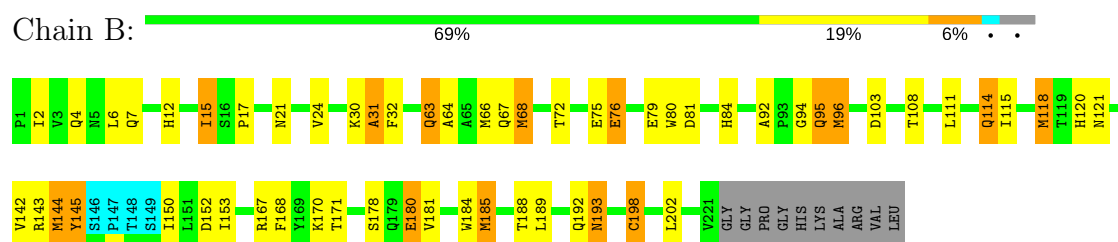


4.2.41 Score per residue for model 41

- Molecule 1: Capsid protein p24

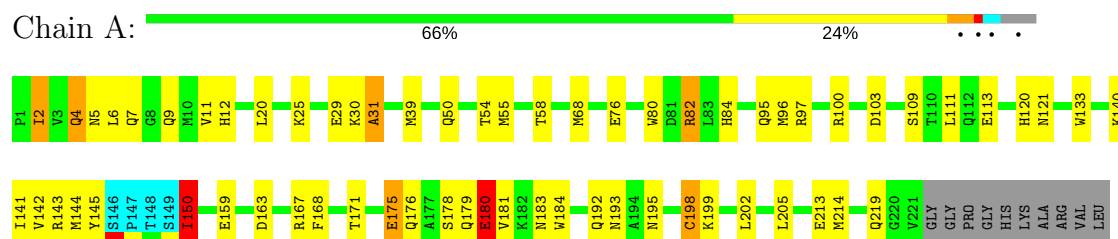


- Molecule 1: Capsid protein p24

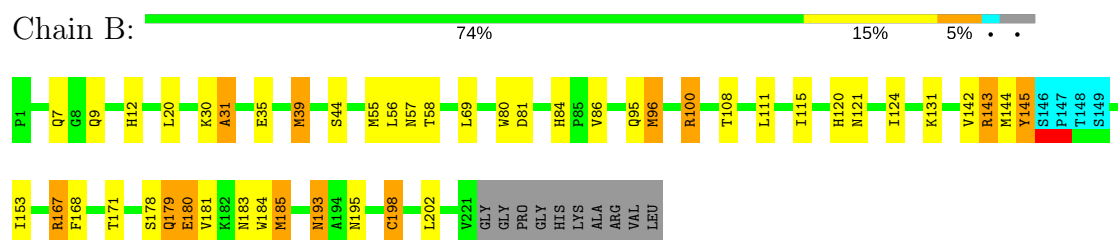


4.2.42 Score per residue for model 42

- Molecule 1: Capsid protein p24

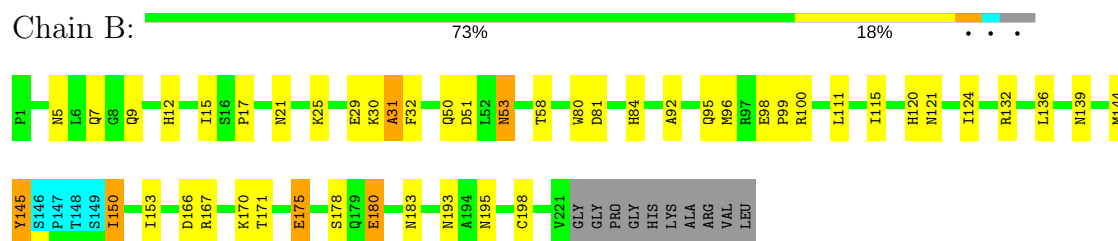


- Molecule 1: Capsid protein p24



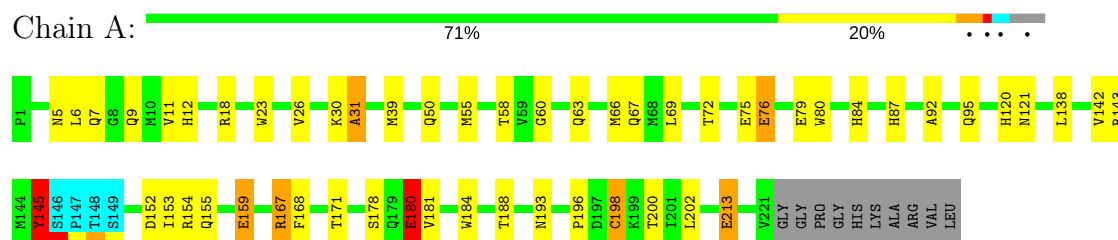
4.2.43 Score per residue for model 43

- Molecule 1: Capsid protein p24

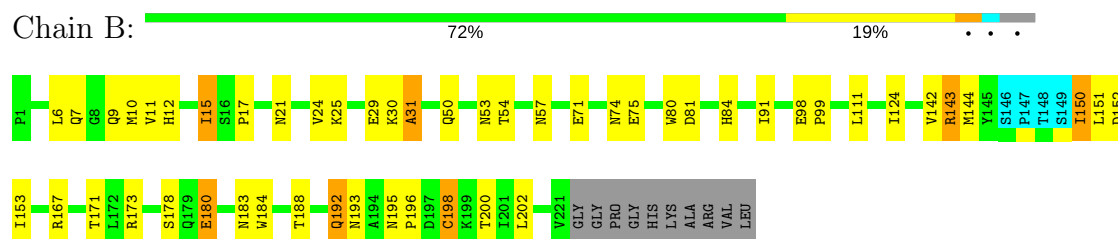


4.2.44 Score per residue for model 44

- Molecule 1: Capsid protein p24

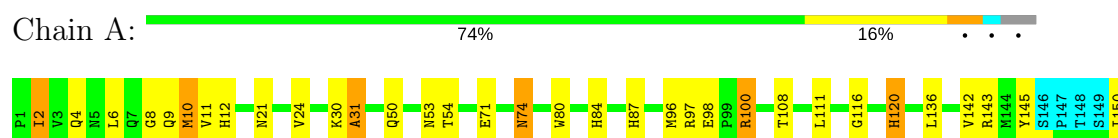


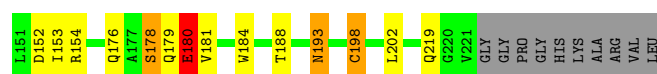
- Molecule 1: Capsid protein p24



4.2.45 Score per residue for model 45

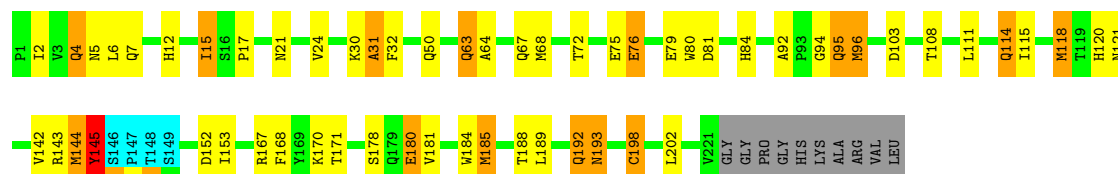
- Molecule 1: Capsid protein p24





• Molecule 1: Capsid protein p24

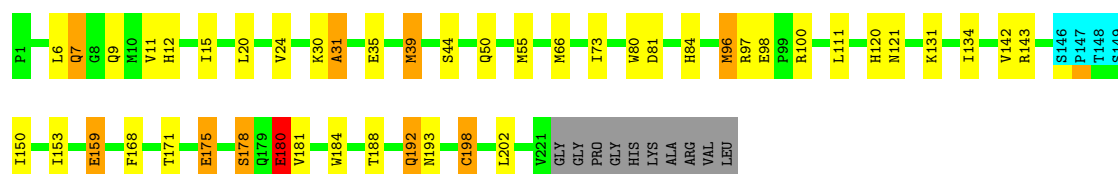
Chain B: 69% 18% 6%



4.2.46 Score per residue for model 46

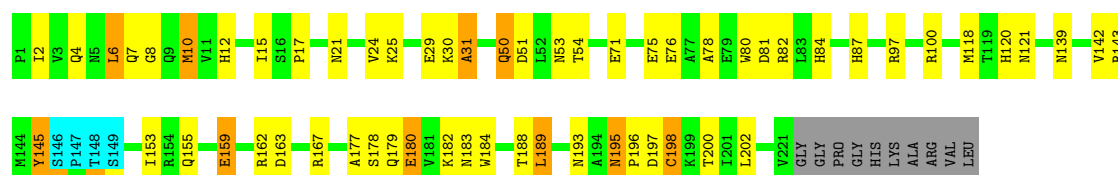
• Molecule 1: Capsid protein p24

Chain A: 74% 16%



• Molecule 1: Capsid protein p24

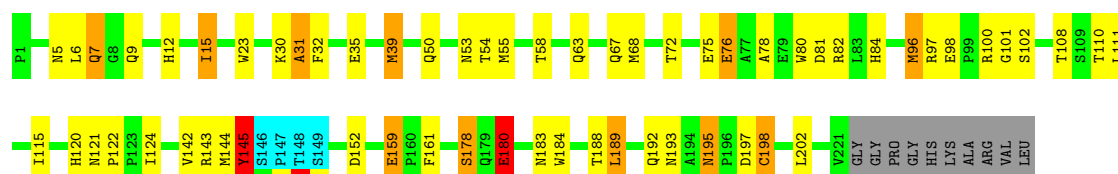
Chain B: 68% 21%



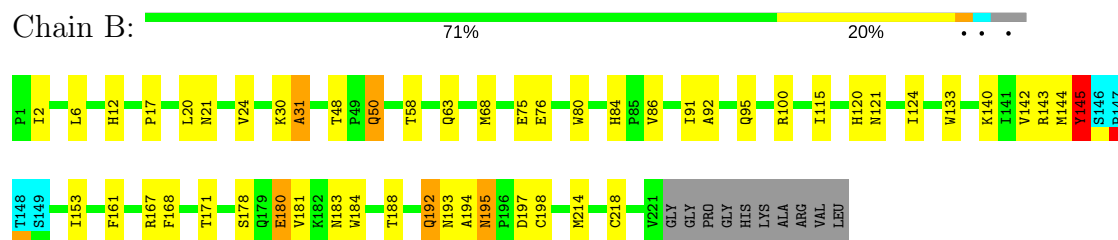
4.2.47 Score per residue for model 47

• Molecule 1: Capsid protein p24

Chain A: 68% 21% 5%

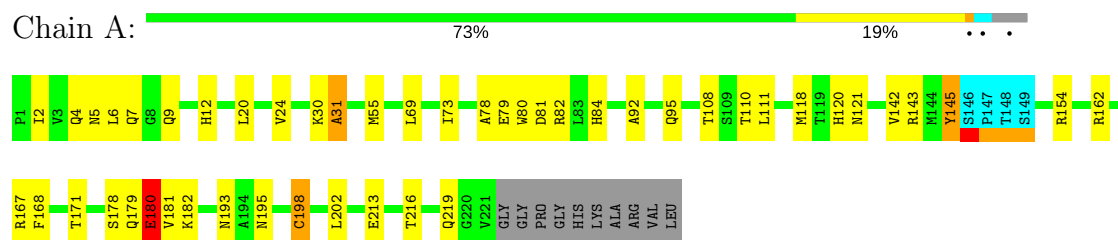


• Molecule 1: Capsid protein p24

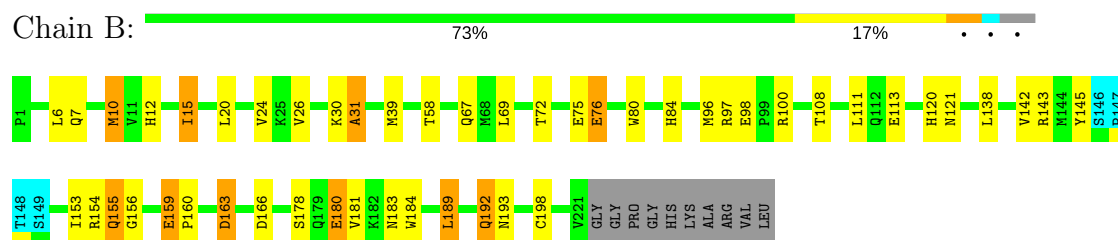


4.2.48 Score per residue for model 48

- Molecule 1: Capsid protein p24

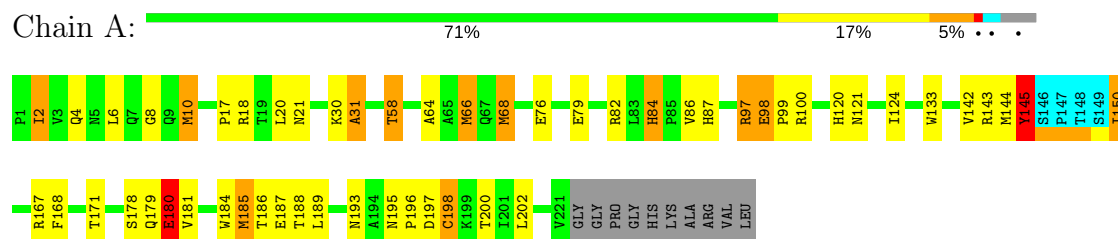


- Molecule 1: Capsid protein p24

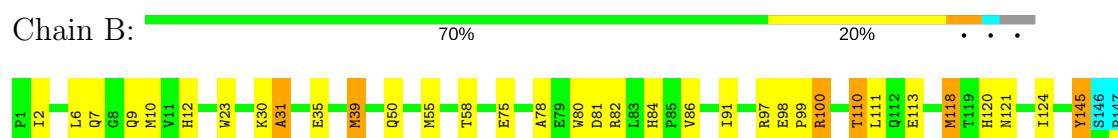


4.2.49 Score per residue for model 49

- Molecule 1: Capsid protein p24



- Molecule 1: Capsid protein p24





4.2.50 Score per residue for model 50

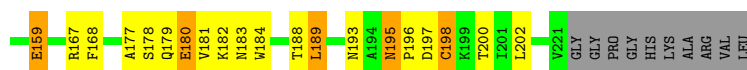
- Molecule 1: Capsid protein p24

Chain A: 74% 16%



- Molecule 1: Capsid protein p24

Chain B: 70% 20%



4.2.51 Score per residue for model 51

- Molecule 1: Capsid protein p24

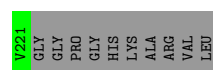
Chain A: 70% 20%



- Molecule 1: Capsid protein p24

Chain B: 65% 23% 6%

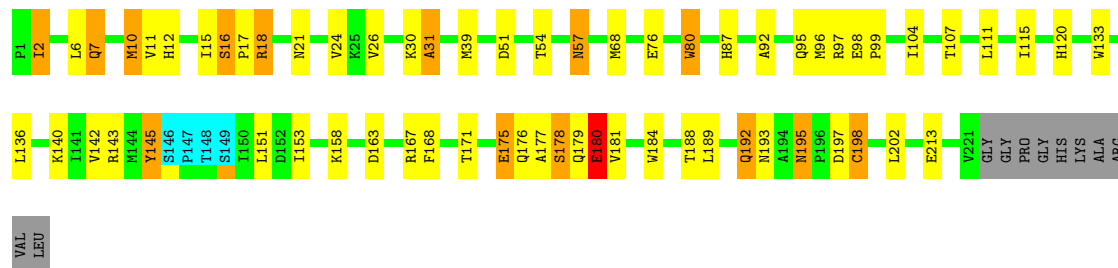




4.2.52 Score per residue for model 52

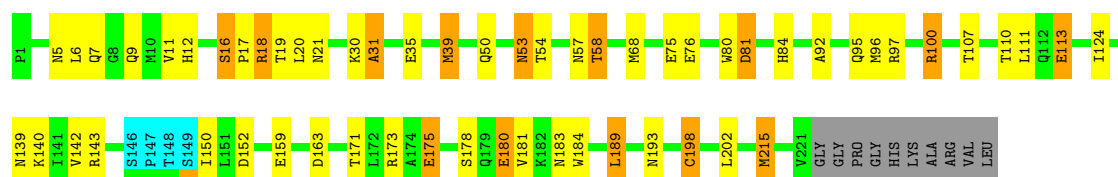
- Molecule 1: Capsid protein p24

Chain A: 66% 21% 6% • •



- Molecule 1: Capsid protein p24

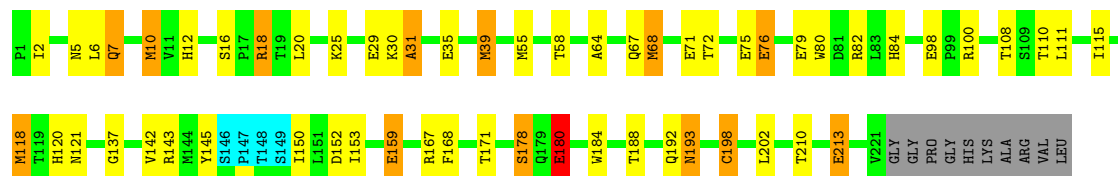
Chain B: 69% 19% 6% • •



4.2.53 Score per residue for model 53

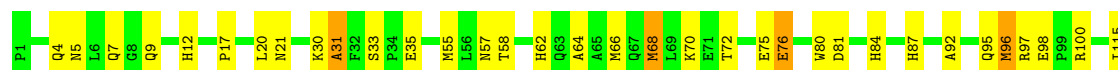
- Molecule 1: Capsid protein p24

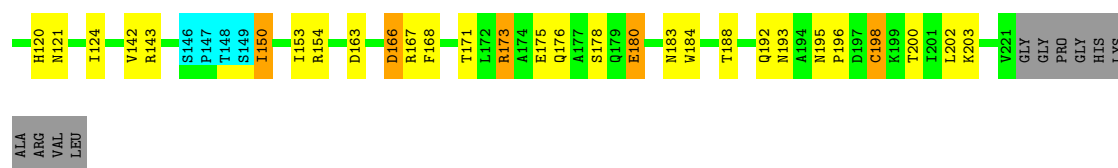
Chain A: 69% 19% 6% • •



- Molecule 1: Capsid protein p24

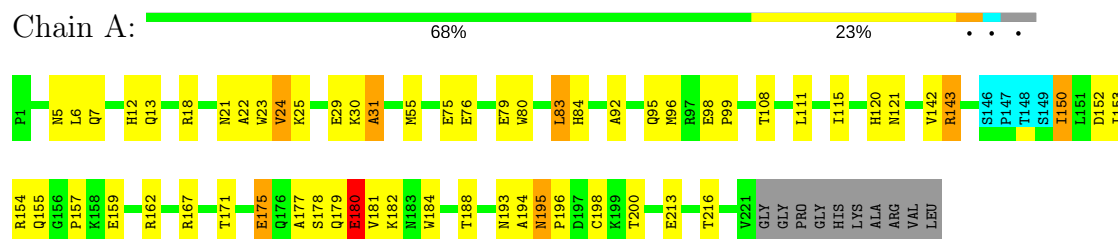
Chain B: 67% 23% • • •



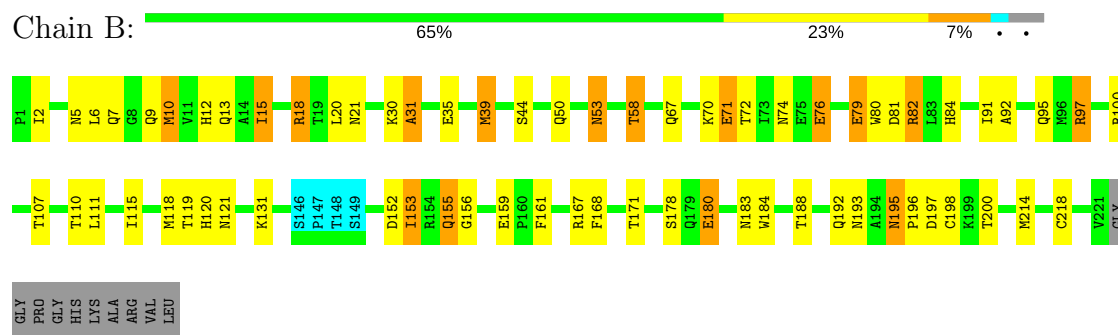


4.2.54 Score per residue for model 54

- Molecule 1: Capsid protein p24

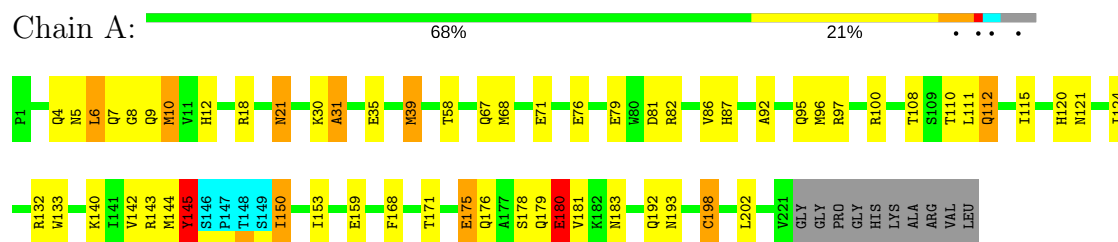


- Molecule 1: Capsid protein p24

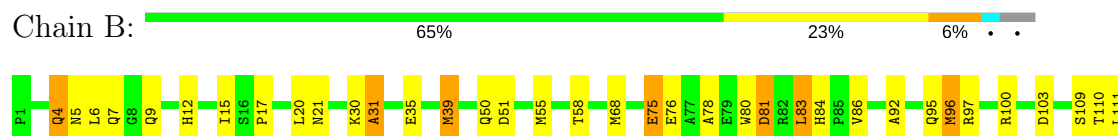


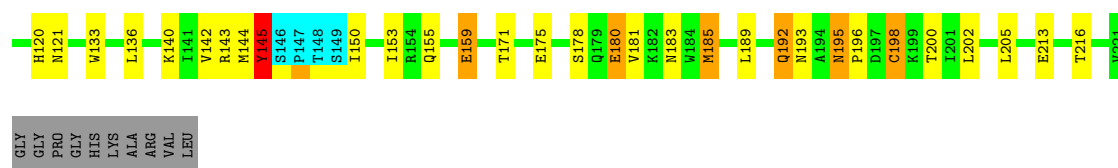
4.2.55 Score per residue for model 55

- Molecule 1: Capsid protein p24



- Molecule 1: Capsid protein p24

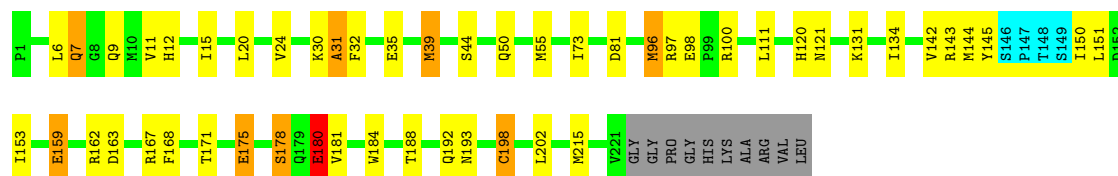




4.2.56 Score per residue for model 56

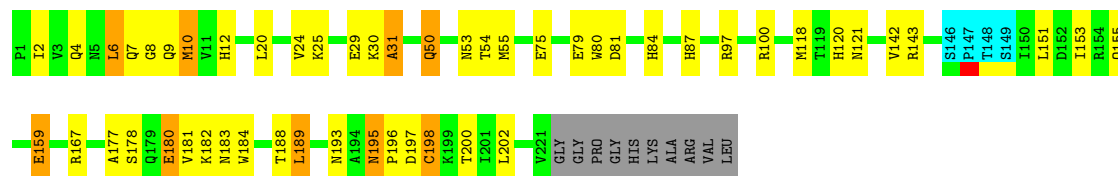
- Molecule 1: Capsid protein p24

Chain A: 72% 18%



- Molecule 1: Capsid protein p24

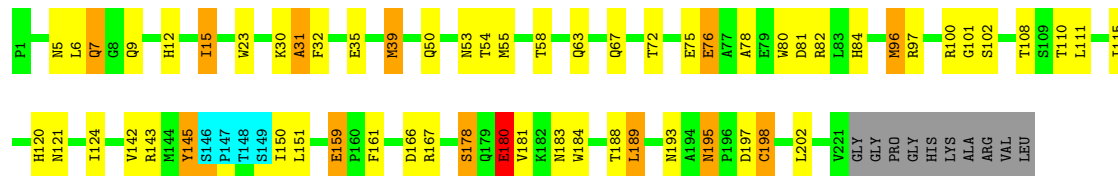
Chain B: 71% 19%



4.2.57 Score per residue for model 57

- Molecule 1: Capsid protein p24

Chain A: 68% 20% 5%



- Molecule 1: Capsid protein p24

Chain B: 70% 22%





4.2.58 Score per residue for model 58

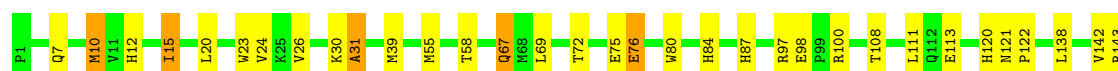
- Molecule 1: Capsid protein p24

Chain A: 74% 19% . . .



- Molecule 1: Capsid protein p24

Chain B: 73% 17% . . .



4.2.59 Score per residue for model 59

- Molecule 1: Capsid protein p24

Chain A: 72% 16% 5% . . .



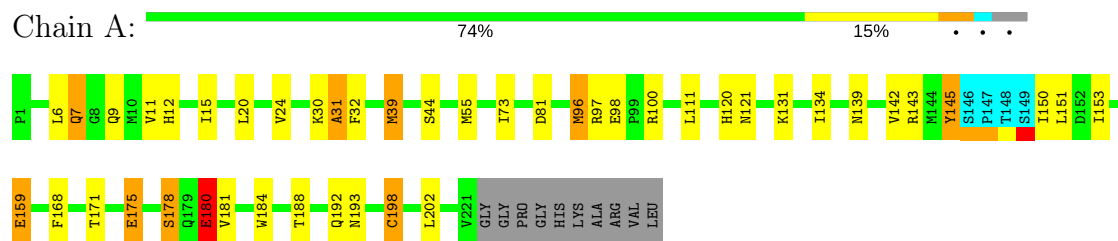
- Molecule 1: Capsid protein p24

Chain B: 71% 19% . . .

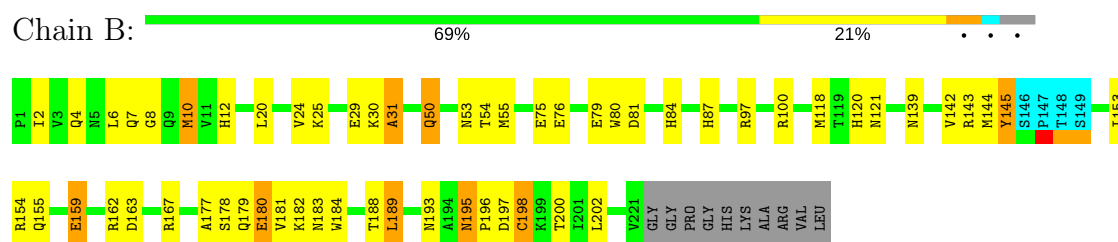


4.2.60 Score per residue for model 60

- Molecule 1: Capsid protein p24

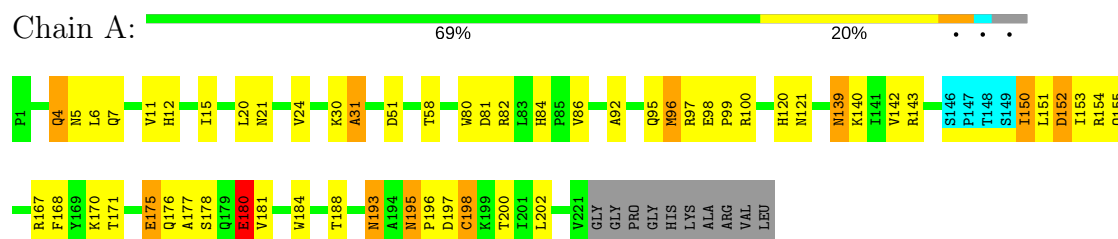


- Molecule 1: Capsid protein p24

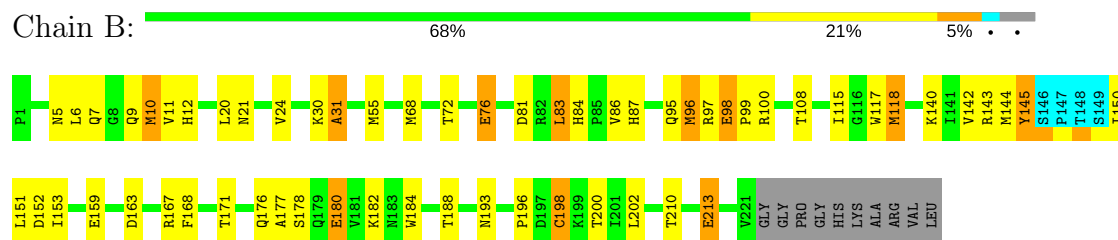


4.2.61 Score per residue for model 61

- Molecule 1: Capsid protein p24

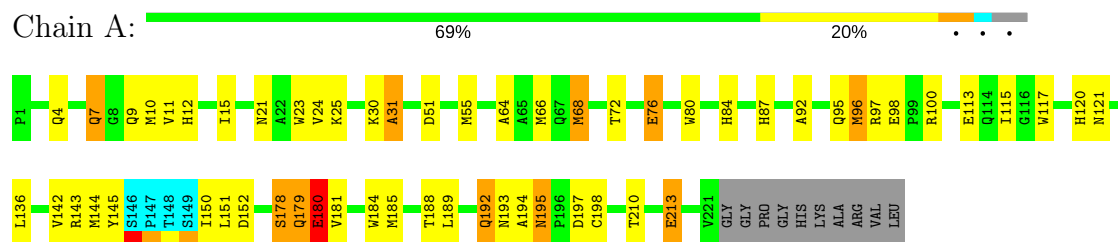


- Molecule 1: Capsid protein p24

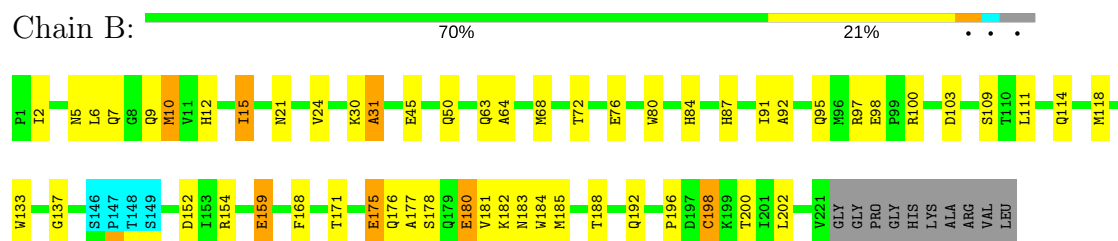


4.2.62 Score per residue for model 62

- Molecule 1: Capsid protein p24

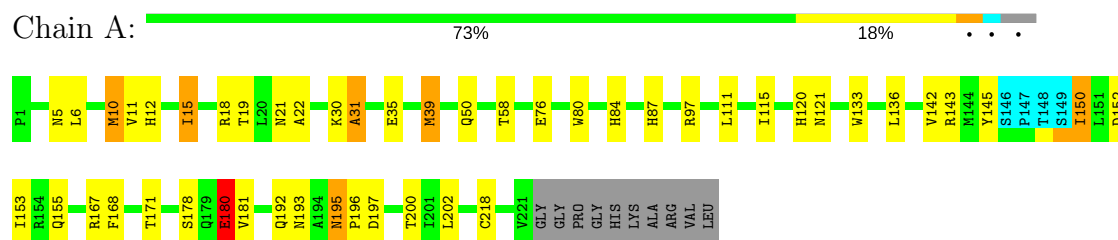


- Molecule 1: Capsid protein p24

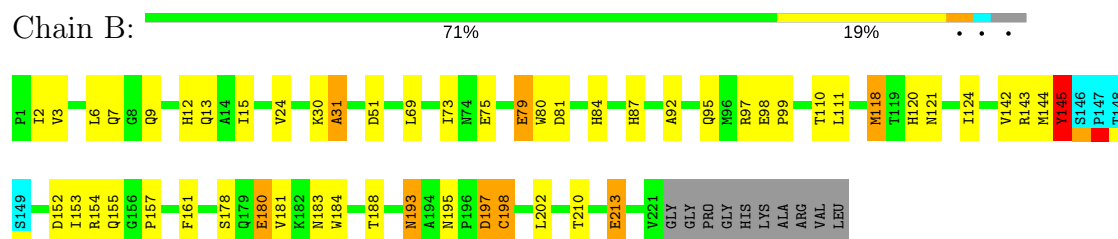


4.2.63 Score per residue for model 63

- Molecule 1: Capsid protein p24

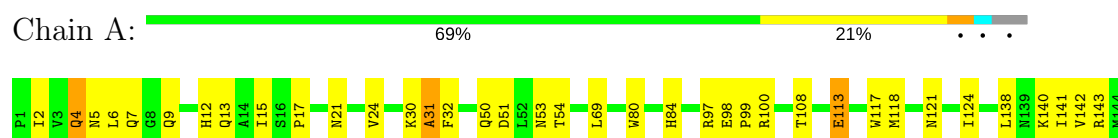


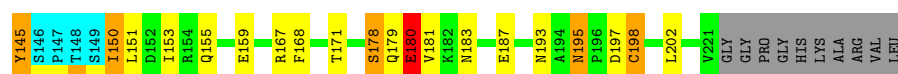
- Molecule 1: Capsid protein p24



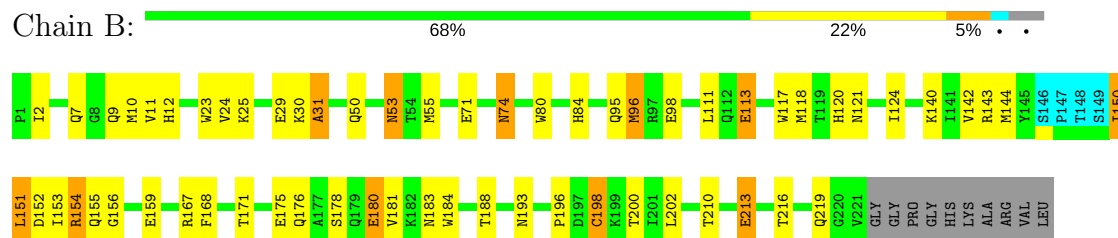
4.2.64 Score per residue for model 64

- Molecule 1: Capsid protein p24



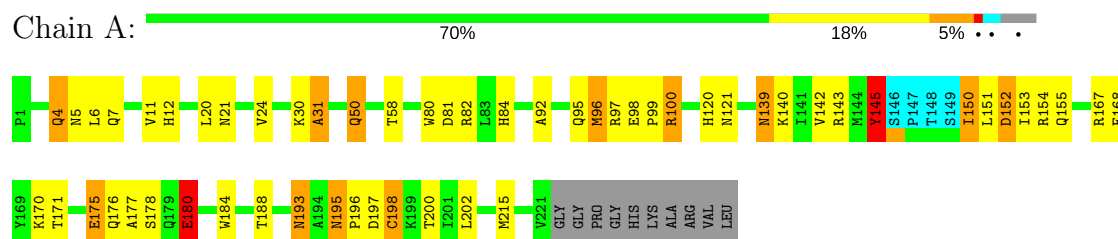


• Molecule 1: Capsid protein p24

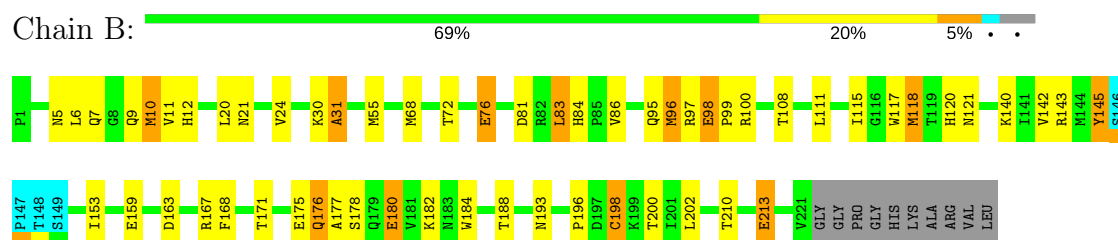


4.2.65 Score per residue for model 65

• Molecule 1: Capsid protein p24

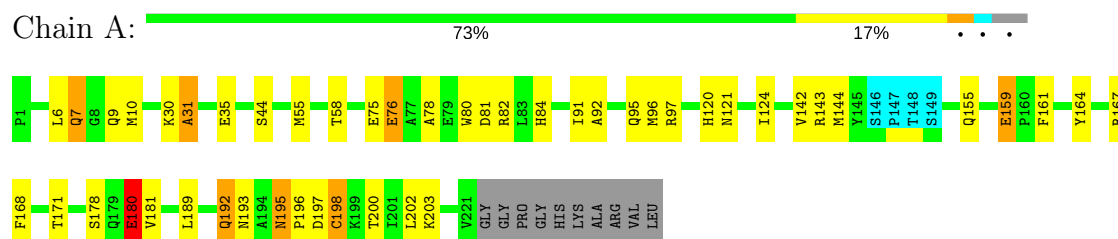


• Molecule 1: Capsid protein p24

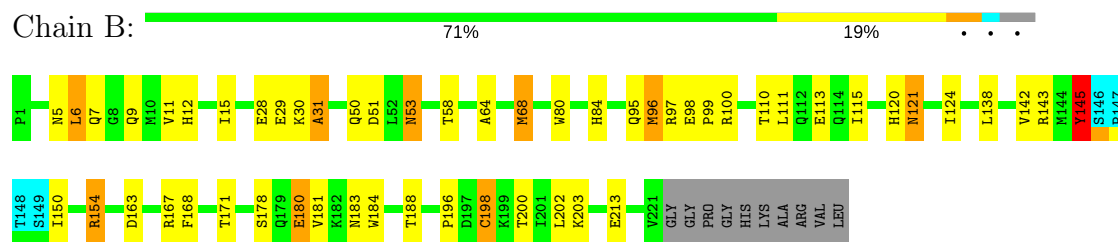


4.2.66 Score per residue for model 66

• Molecule 1: Capsid protein p24

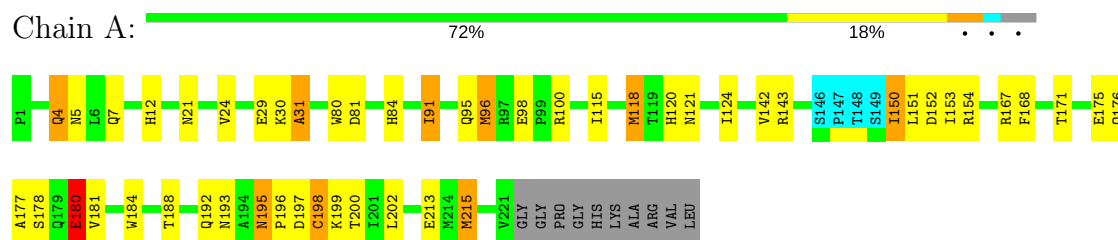


• Molecule 1: Capsid protein p24

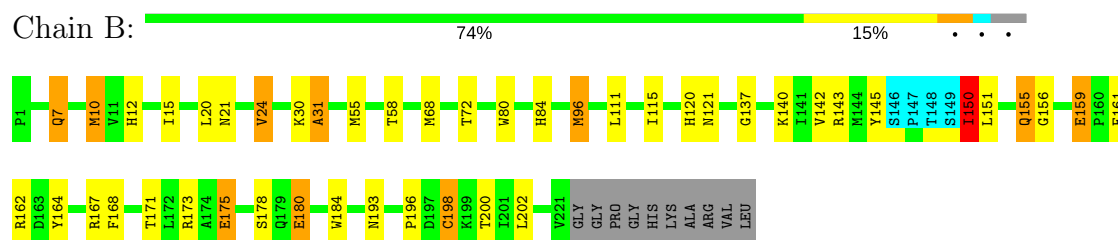


4.2.67 Score per residue for model 67

- Molecule 1: Capsid protein p24

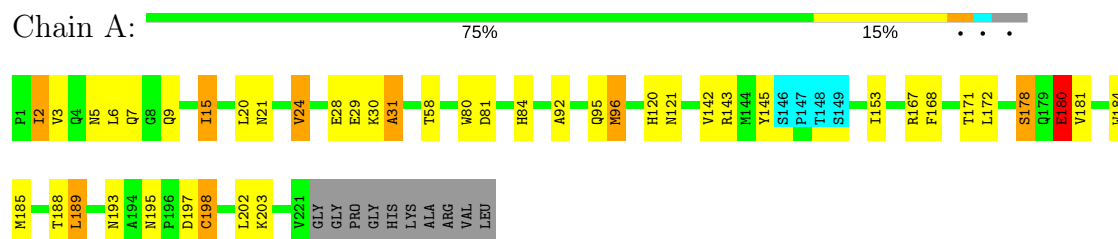


- Molecule 1: Capsid protein p24

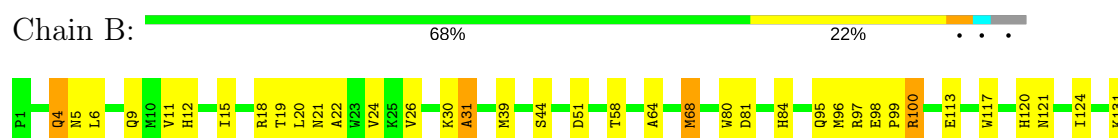


4.2.68 Score per residue for model 68

- Molecule 1: Capsid protein p24



- Molecule 1: Capsid protein p24





4.2.69 Score per residue for model 69

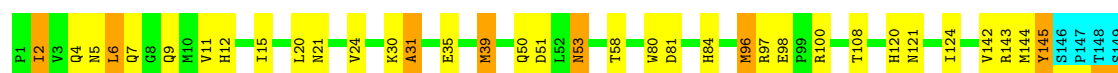
- Molecule 1: Capsid protein p24

Chain A: 71% 19%



- Molecule 1: Capsid protein p24

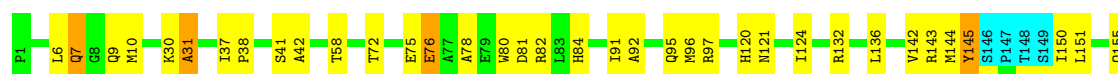
Chain B: 72% 17%



4.2.70 Score per residue for model 70

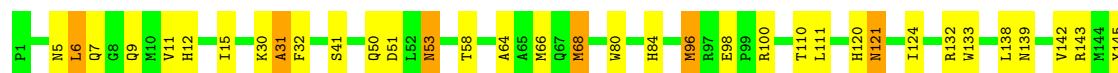
- Molecule 1: Capsid protein p24

Chain A: 70% 20%



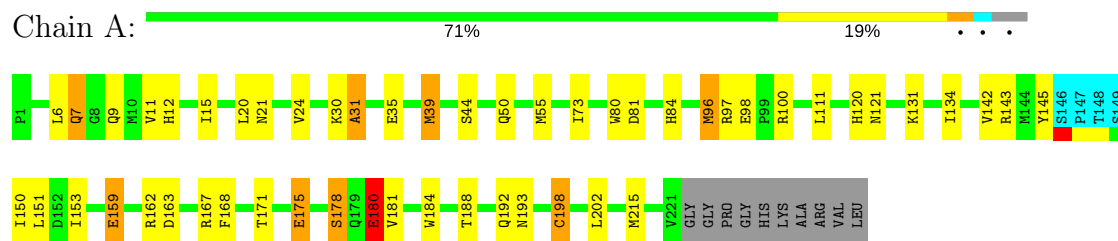
- Molecule 1: Capsid protein p24

Chain B: 70% 20%

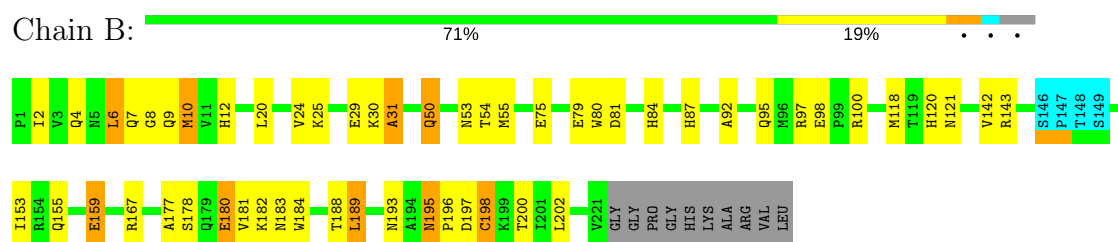


4.2.71 Score per residue for model 71

- Molecule 1: Capsid protein p24

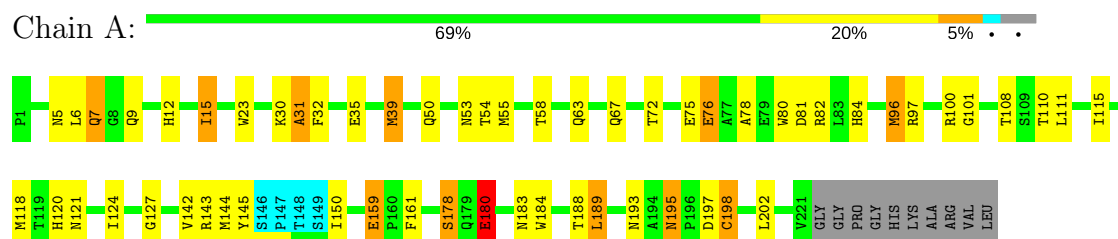


- Molecule 1: Capsid protein p24

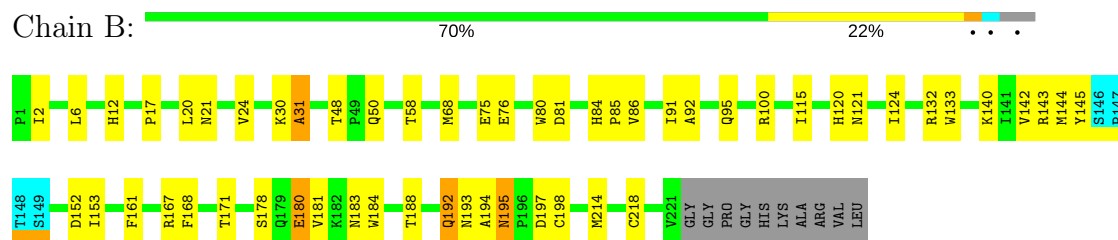


4.2.72 Score per residue for model 72

- Molecule 1: Capsid protein p24

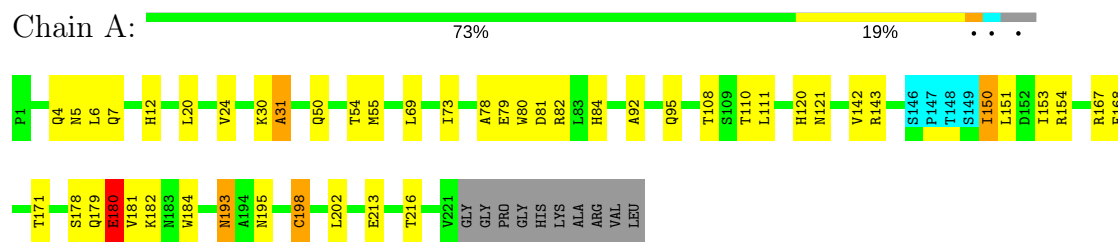


- Molecule 1: Capsid protein p24

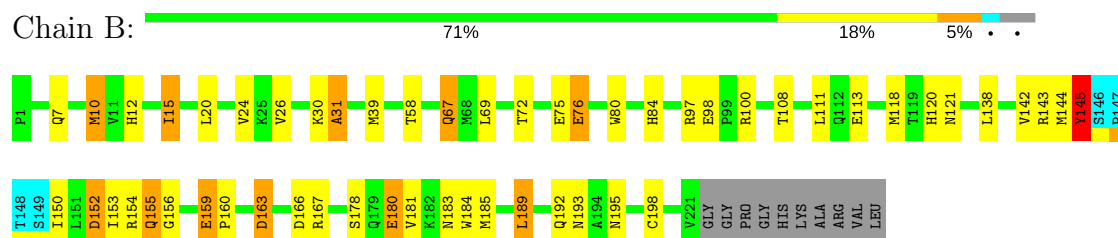


4.2.73 Score per residue for model 73

- Molecule 1: Capsid protein p24

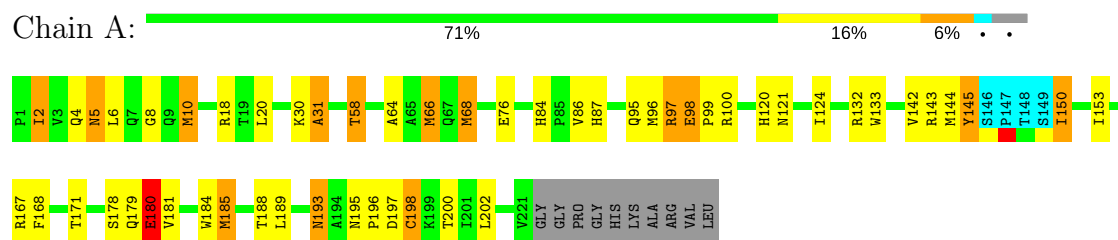


- Molecule 1: Capsid protein p24

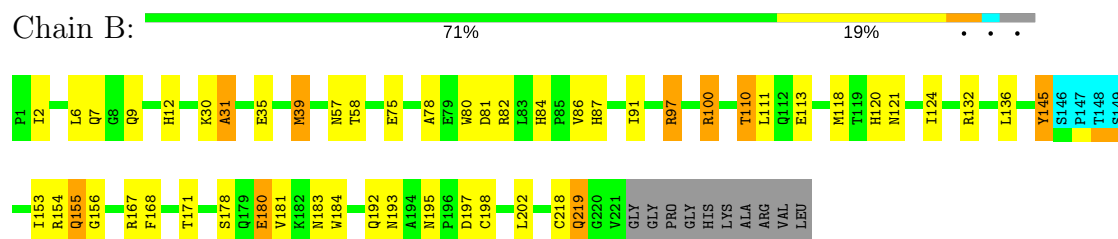


4.2.74 Score per residue for model 74

- Molecule 1: Capsid protein p24

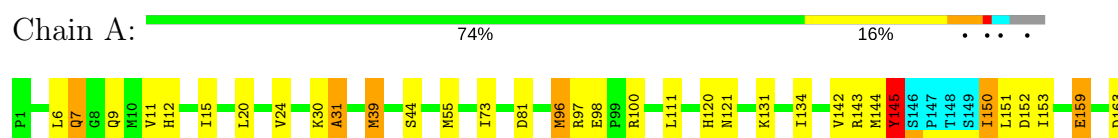


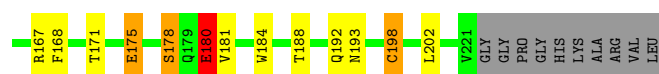
- Molecule 1: Capsid protein p24



4.2.75 Score per residue for model 75

- Molecule 1: Capsid protein p24





- Molecule 1: Capsid protein p24

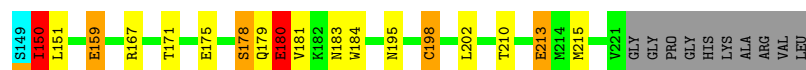
Chain B:



4.2.76 Score per residue for model 76

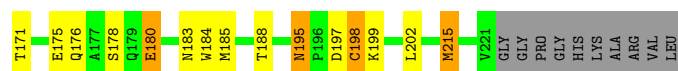
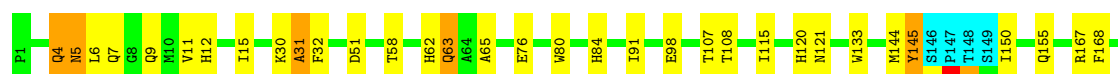
- Molecule 1: Capsid protein p24

Chain A:



- Molecule 1: Capsid protein p24

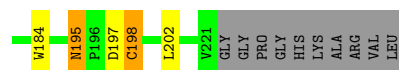
Chain B:



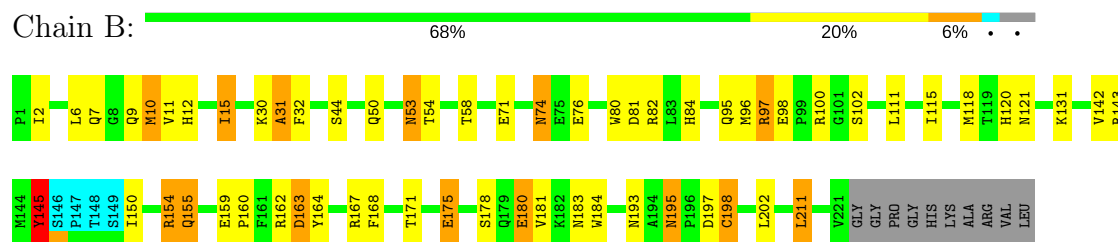
4.2.77 Score per residue for model 77

- Molecule 1: Capsid protein p24

Chain A:

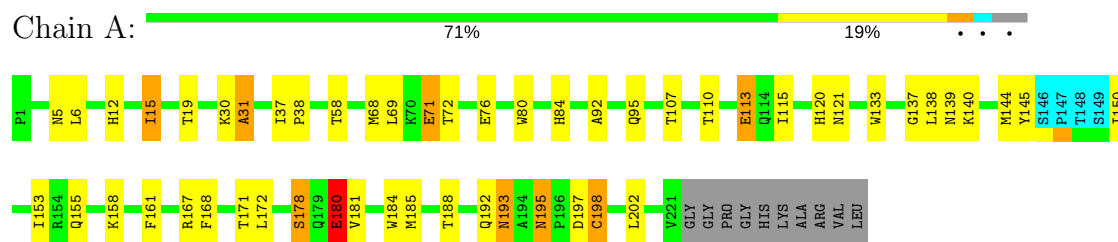


- Molecule 1: Capsid protein p24

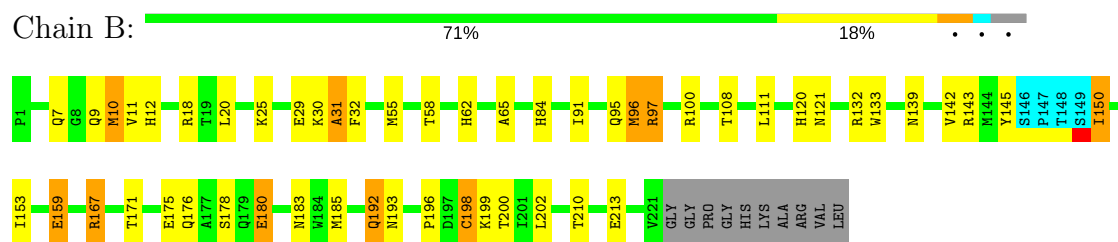


4.2.78 Score per residue for model 78

- Molecule 1: Capsid protein p24

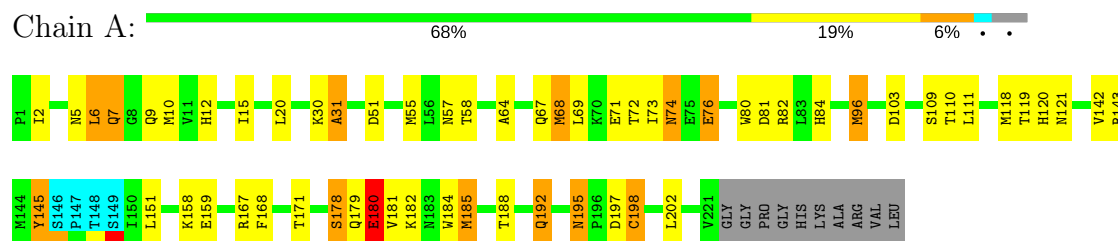


- Molecule 1: Capsid protein p24

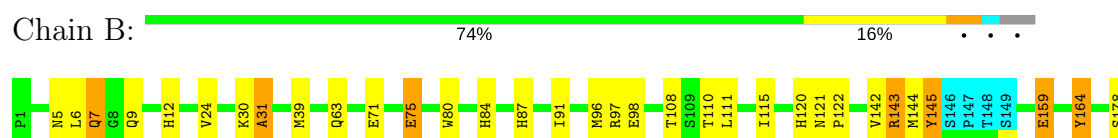


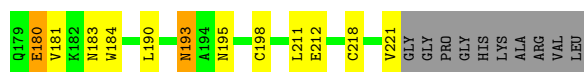
4.2.79 Score per residue for model 79

- Molecule 1: Capsid protein p24



- Molecule 1: Capsid protein p24

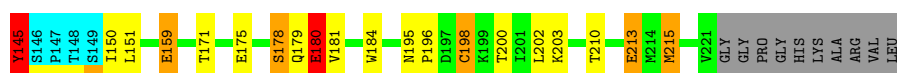




4.2.80 Score per residue for model 80

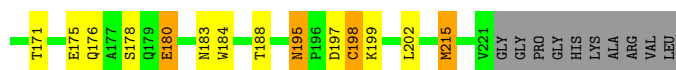
- Molecule 1: Capsid protein p24

Chain A: 71% 17% 5% . . .



- Molecule 1: Capsid protein p24

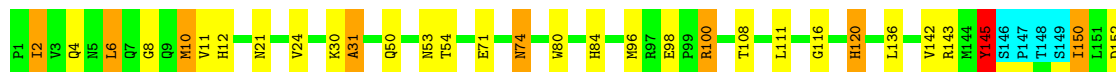
Chain B: 73% 17% . . .



4.2.81 Score per residue for model 81

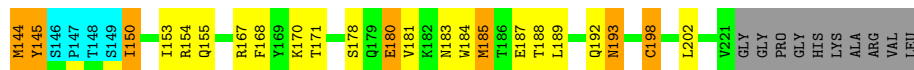
- Molecule 1: Capsid protein p24

Chain A: 75% 13% . . .



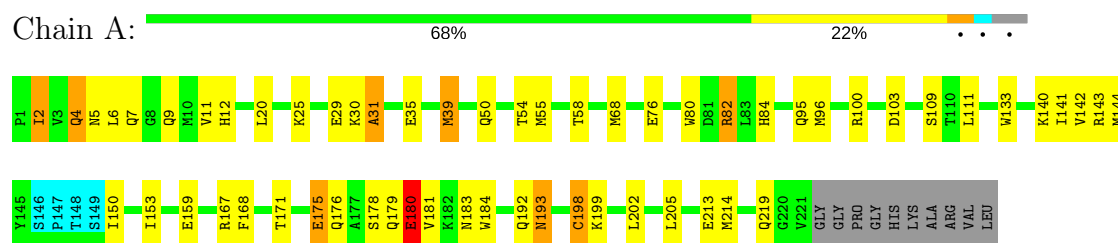
- Molecule 1: Capsid protein p24

Chain B: 68% 18% 8% . . .

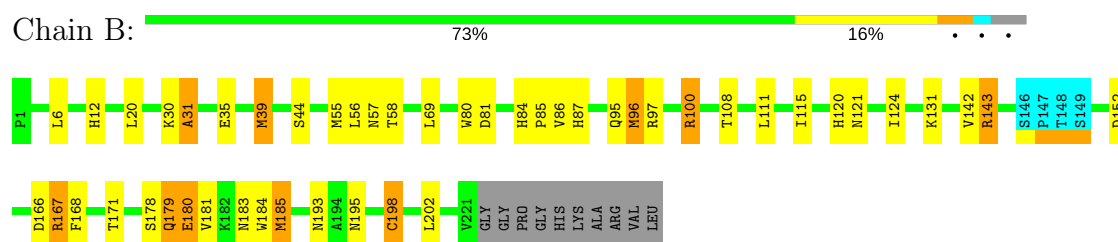


4.2.82 Score per residue for model 82

- Molecule 1: Capsid protein p24

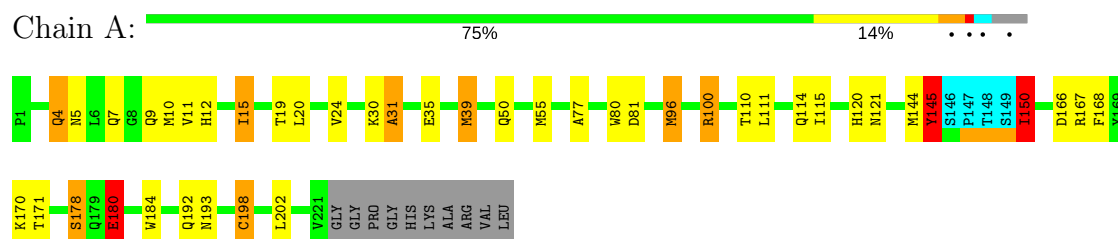


- Molecule 1: Capsid protein p24

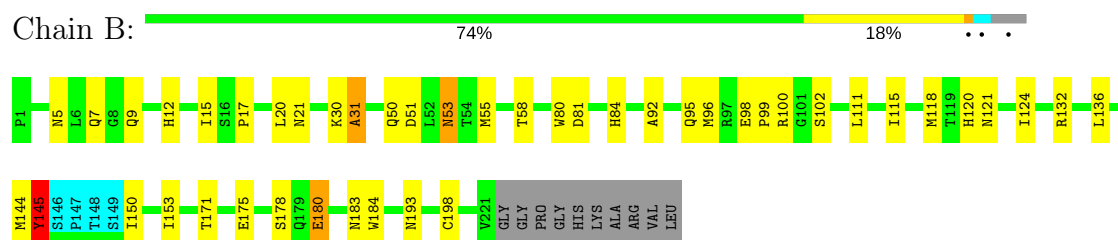


4.2.83 Score per residue for model 83

- Molecule 1: Capsid protein p24

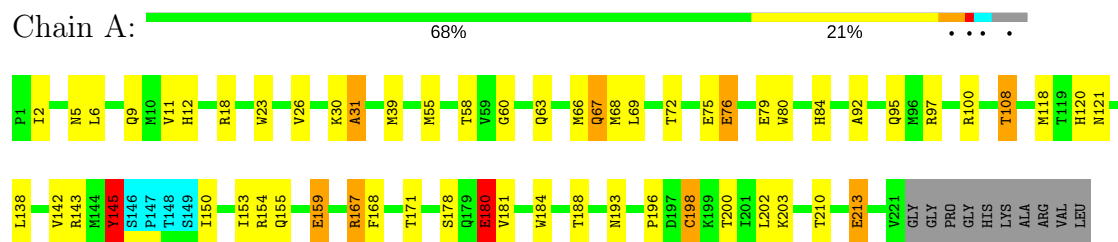


- Molecule 1: Capsid protein p24

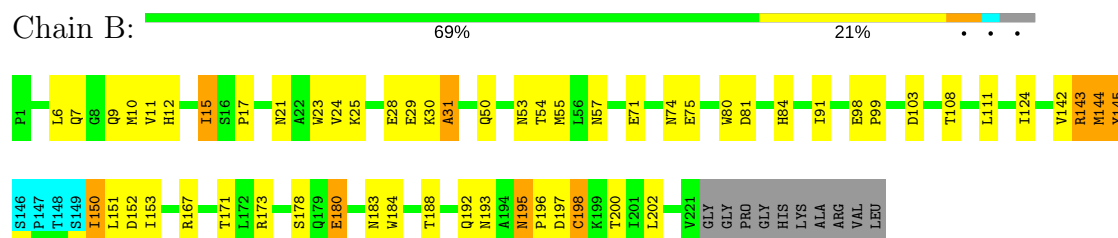


4.2.84 Score per residue for model 84

- Molecule 1: Capsid protein p24

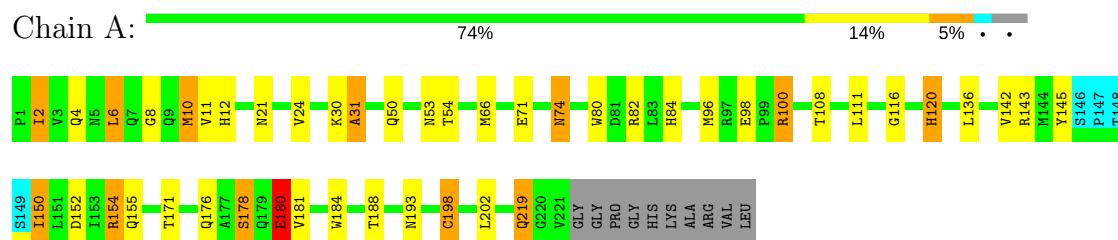


- Molecule 1: Capsid protein p24

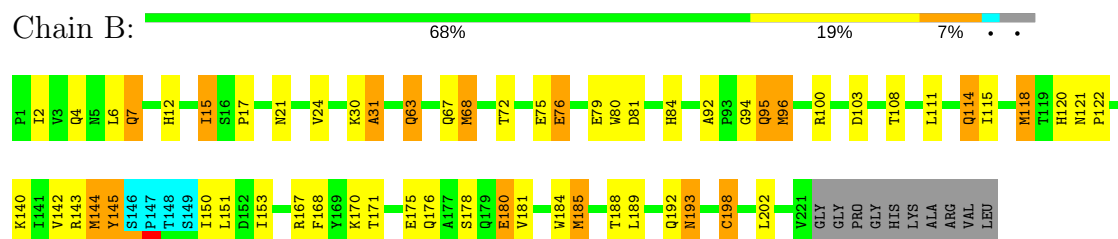


4.2.85 Score per residue for model 85

- Molecule 1: Capsid protein p24

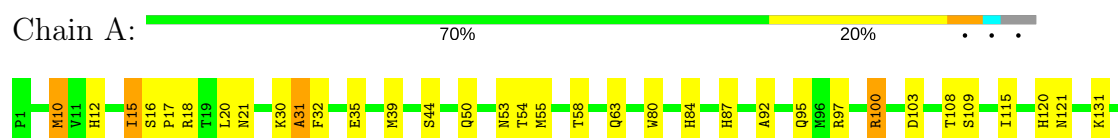


- Molecule 1: Capsid protein p24



4.2.86 Score per residue for model 86

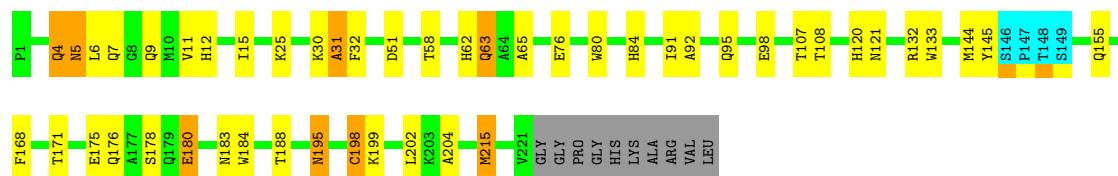
- Molecule 1: Capsid protein p24





- Molecule 1: Capsid protein p24

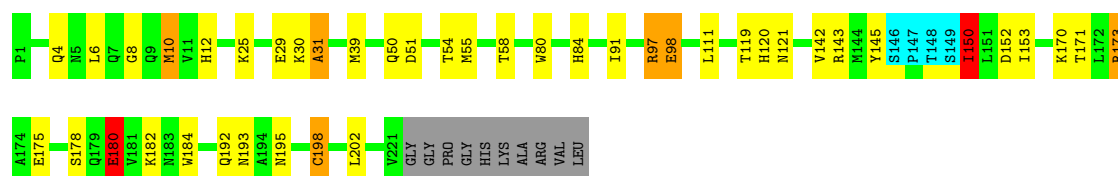
Chain B:



4.2.87 Score per residue for model 87

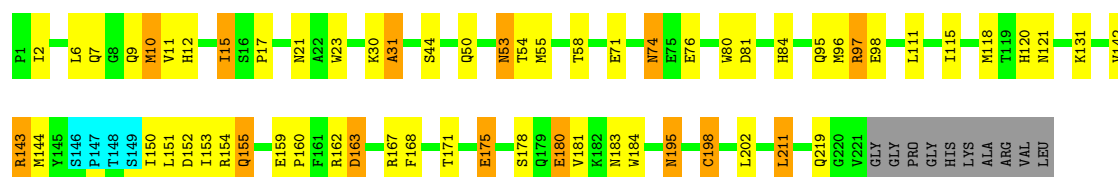
- Molecule 1: Capsid protein p24

Chain A:



- Molecule 1: Capsid protein p24

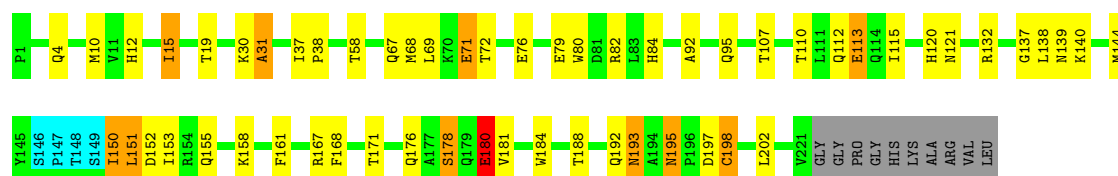
Chain B:



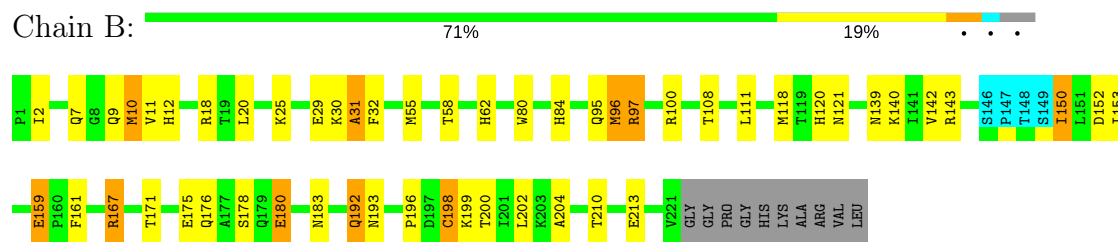
4.2.88 Score per residue for model 88

- Molecule 1: Capsid protein p24

Chain A:

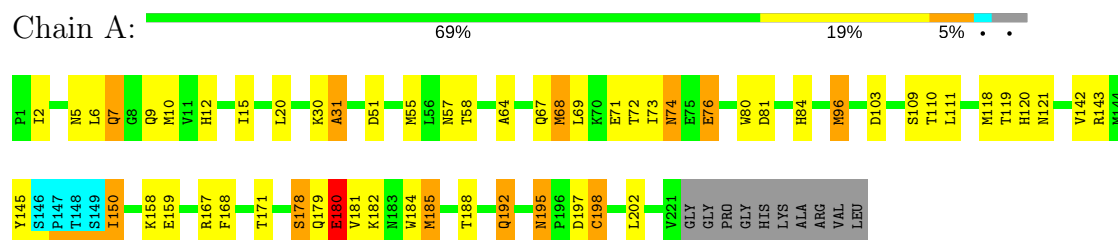


- Molecule 1: Capsid protein p24

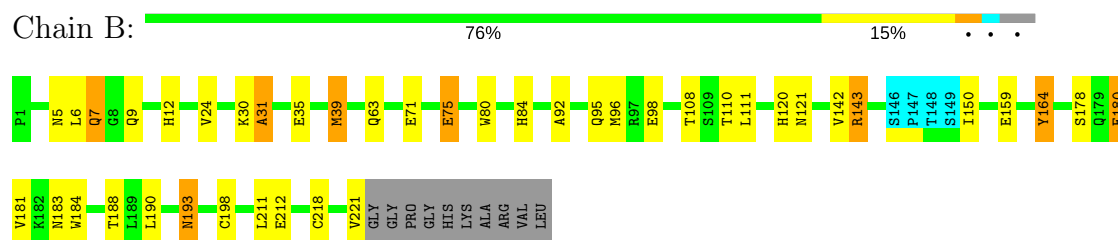


4.2.89 Score per residue for model 89

- Molecule 1: Capsid protein p24

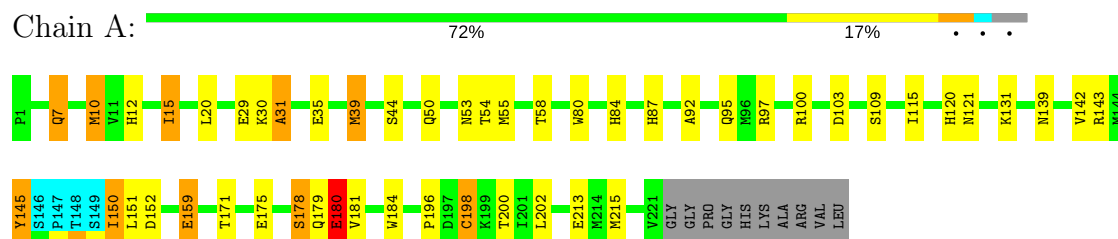


- Molecule 1: Capsid protein p24

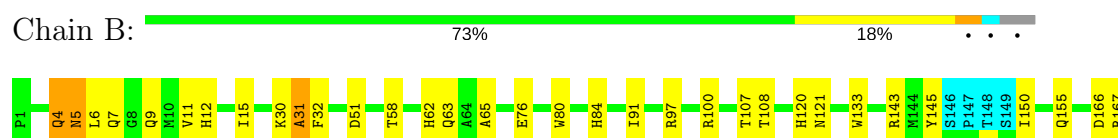


4.2.90 Score per residue for model 90

- Molecule 1: Capsid protein p24



- Molecule 1: Capsid protein p24

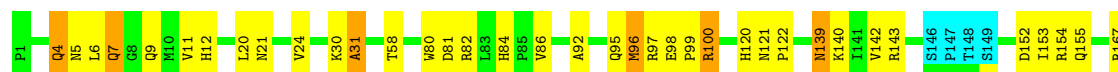




4.2.91 Score per residue for model 91

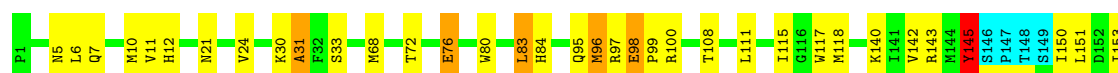
- Molecule 1: Capsid protein p24

Chain A: 70% 19% . . .



- Molecule 1: Capsid protein p24

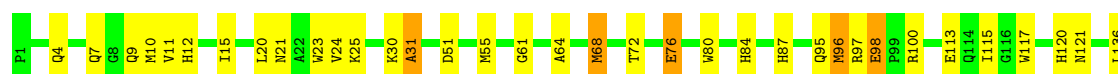
Chain B: 71% 19% . . .



4.2.92 Score per residue for model 92

- Molecule 1: Capsid protein p24

Chain A: 69% 19% . . .



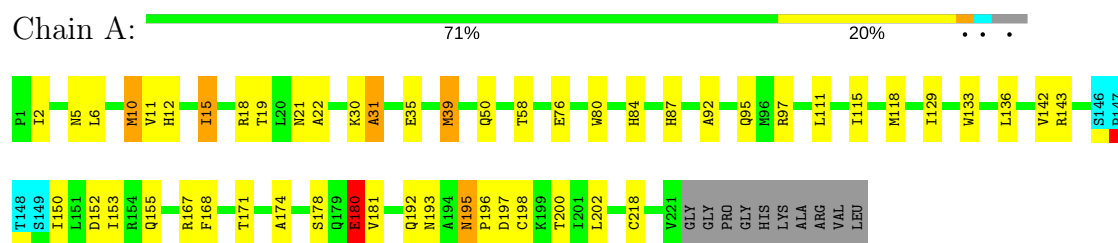
- Molecule 1: Capsid protein p24

Chain B: 69% 22% . . .

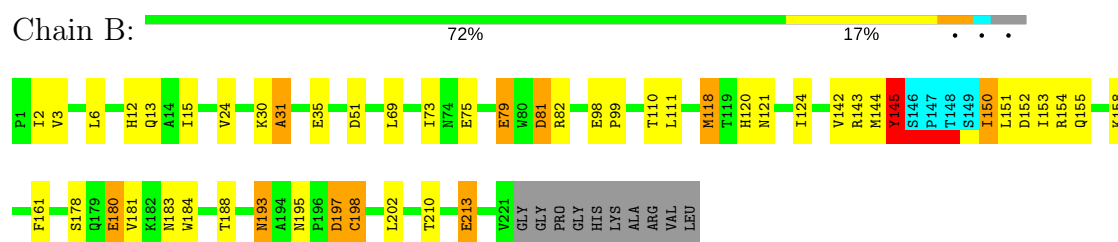


4.2.93 Score per residue for model 93

- Molecule 1: Capsid protein p24

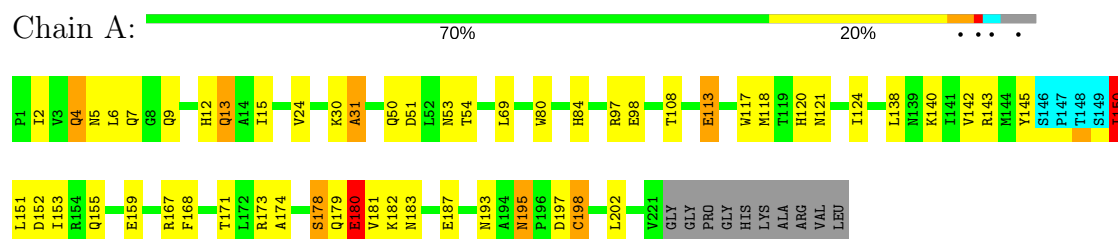


- Molecule 1: Capsid protein p24

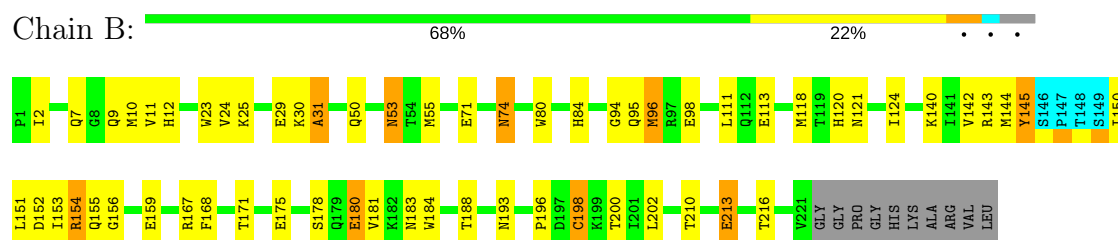


4.2.94 Score per residue for model 94

- Molecule 1: Capsid protein p24

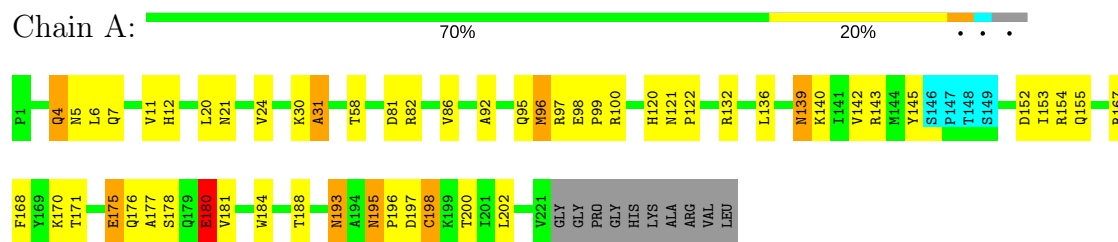


- Molecule 1: Capsid protein p24

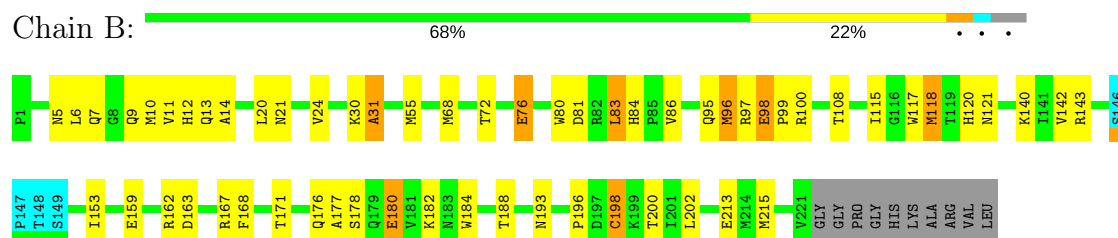


4.2.95 Score per residue for model 95 (medoid)

- Molecule 1: Capsid protein p24

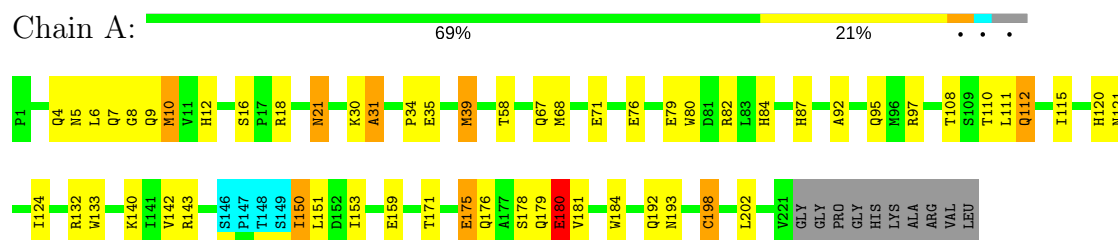


- Molecule 1: Capsid protein p24

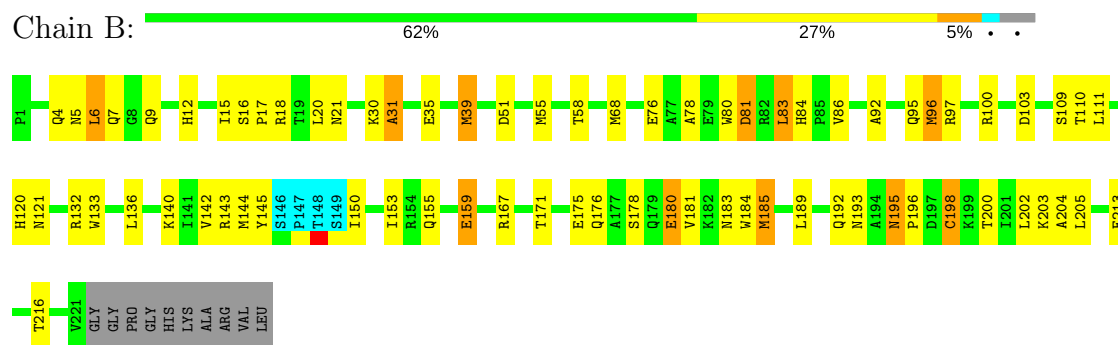


4.2.96 Score per residue for model 96

- Molecule 1: Capsid protein p24



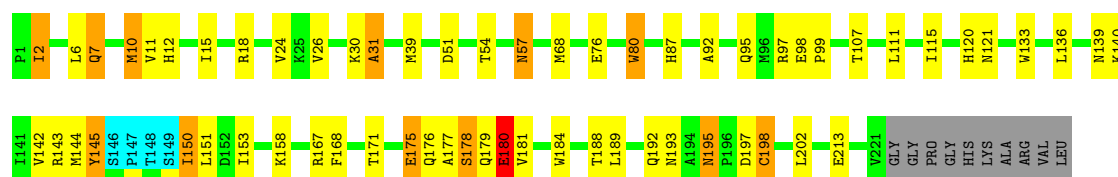
- Molecule 1: Capsid protein p24



4.2.97 Score per residue for model 97

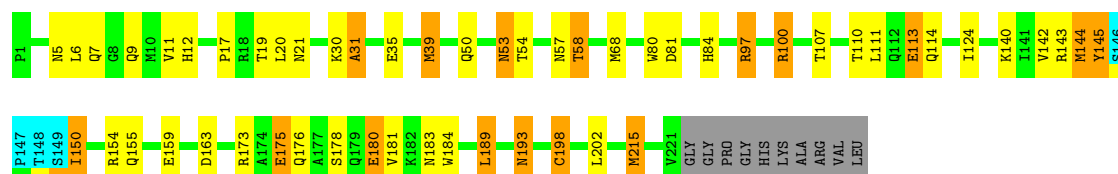
- Molecule 1: Capsid protein p24





- Molecule 1: Capsid protein p24

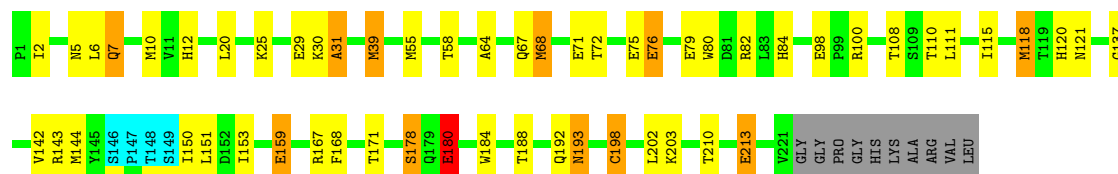
Chain B: 71% 16% 7% • •



4.2.98 Score per residue for model 98

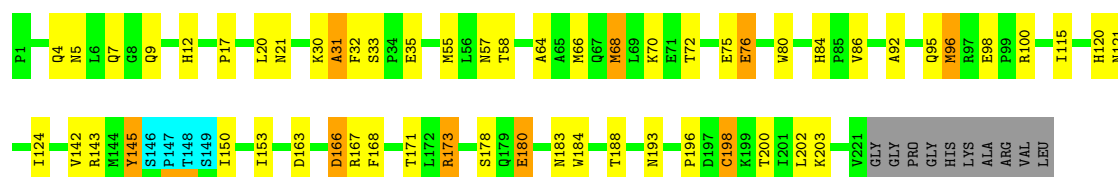
- Molecule 1: Capsid protein p24

Chain A: 70% 19% 5% • •



- Molecule 1: Capsid protein p24

Chain B: 69% 21% • •



4.2.99 Score per residue for model 99

- Molecule 1: Capsid protein p24

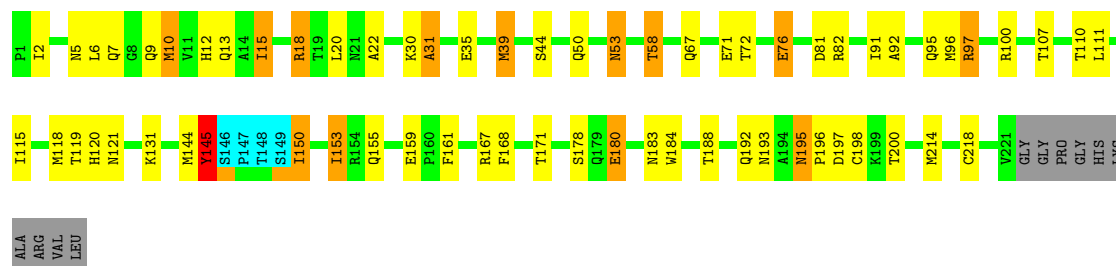
Chain A: 71% 19% • •





• Molecule 1: Capsid protein p24

Chain B: 



4.2.100 Score per residue for model 100

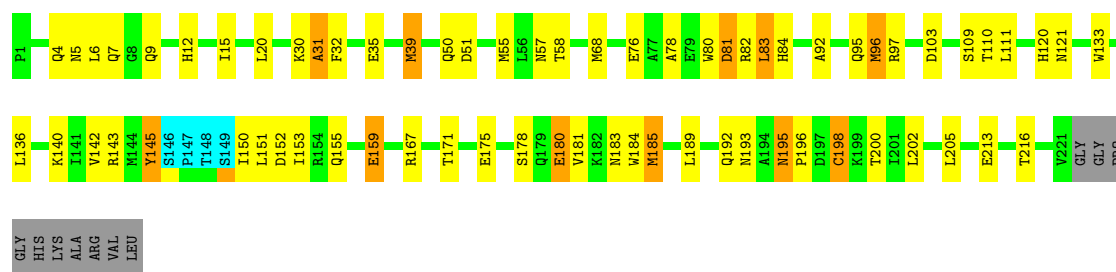
• Molecule 1: Capsid protein p24

Chain A: 



• Molecule 1: Capsid protein p24

Chain B: 



5 Refinement protocol and experimental data overview

The models were refined using the following method: *simulated annealing*.

Of the 480 calculated structures, 100 were deposited, based on the following criterion: *structures with the lowest energy*.

The following table shows the software used for structure solution, optimisation and refinement.

Software name	Classification	Version
X-PLOR NIH	refinement	2.32

The following table shows chemical shift validation statistics as aggregates over all chemical shift files. Detailed validation can be found in section 7 of this report.

Chemical shift file(s)	2m8l_cs.str
Number of chemical shift lists	1
Total number of shifts	919
Number of shifts mapped to atoms	919
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Assignment completeness (well-defined parts)	16%

No validations of the models with respect to experimental NMR restraints is performed at this time.

6 Model quality i

6.1 Standard geometry i

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the (average) 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	0.43±0.02	0±0/1737 (0.0±0.0%)	0.59±0.01	1±0/2360 (0.0±0.0%)
1	B	0.42±0.02	0±0/1737 (0.0±0.0%)	0.57±0.01	0±1/2360 (0.0±0.0%)
All	All	0.42	32/347400 (0.0%)	0.58	132/472000 (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	Planarity
1	A	0.0±0.0	0.0±0.1
All	All	0	1

All unique bond outliers are listed below. They are sorted according to the Z-score of the worst occurrence in the ensemble.

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)	Models	
								Worst	Total
1	B	145	TYR	N-CA	12.10	1.70	1.46	97	7
1	A	145	TYR	CA-C	7.82	1.73	1.52	92	4
1	A	145	TYR	N-CA	7.66	1.61	1.46	84	12
1	A	145	TYR	C-N	6.32	1.48	1.34	92	1
1	B	145	TYR	CA-C	6.12	1.68	1.52	91	2
1	B	145	TYR	CB-CG	5.97	1.60	1.51	84	2
1	A	150	ILE	N-CA	5.74	1.57	1.46	76	2
1	B	145	TYR	C-N	5.34	1.46	1.34	97	2

All unique angle outliers are listed below. They are sorted according to the Z-score of the worst occurrence in the ensemble.

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)	Models	
								Worst	Total
1	B	145	TYR	N-CA-CB	8.72	126.29	110.60	99	6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)	Models	
								Worst	Total
1	A	180	GLU	N-CA-CB	8.24	125.44	110.60	1	100
1	B	144	MET	C-N-CA	-7.73	102.37	121.70	97	4
1	B	145	TYR	N-CA-C	7.59	131.50	111.00	5	4
1	A	145	TYR	CA-CB-CG	-6.62	100.81	113.40	81	4
1	A	145	TYR	CB-CG-CD2	-6.61	117.04	121.00	25	2
1	A	145	TYR	CB-CG-CD1	6.55	124.93	121.00	25	3
1	B	145	TYR	CB-CG-CD2	-5.68	117.59	121.00	45	1
1	A	145	TYR	N-CA-CB	5.64	120.75	110.60	89	1
1	B	145	TYR	CB-CG-CD1	5.61	124.37	121.00	45	1
1	B	145	TYR	CA-CB-CG	-5.54	102.87	113.40	99	1
1	B	145	TYR	CA-C-N	-5.48	105.14	117.20	45	1
1	A	144	MET	C-N-CA	-5.40	108.20	121.70	3	1
1	A	145	TYR	N-CA-C	5.39	125.56	111.00	23	1
1	B	145	TYR	CB-CA-C	-5.07	100.26	110.40	91	1
1	A	145	TYR	CB-CA-C	-5.05	100.30	110.40	64	1

There are no chirality outliers.

All unique planar outliers are listed below.

Mol	Chain	Res	Type	Group	Models (Total)
1	A	145	TYR	Sidechain	1

6.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in each 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 averaged over the ensemble.

Mol	Chain	Non-H	H(model)	H(added)	Clashes
1	A	1699	1708	1703	51±9
1	B	1699	1708	1703	51±6
All	All	339800	341600	340600	9517

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 14.

All unique clashes are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:145:TYR:CA	1:B:145:TYR:N	1.53	1.70	97	1
1:A:179:GLN:HG3	1:A:180:GLU:OE2	1.29	1.26	59	24
1:A:179:GLN:CG	1:A:180:GLU:OE2	1.13	1.95	97	24
1:B:6:LEU:H	1:B:6:LEU:HD22	1.01	1.16	25	16
1:B:6:LEU:HD22	1:B:6:LEU:H	0.99	1.16	56	3
1:A:179:GLN:HG3	1:A:180:GLU:CD	0.99	1.74	97	24
1:B:144:MET:O	1:B:145:TYR:HA	0.99	1.55	97	1
1:A:6:LEU:H	1:A:6:LEU:HD22	0.97	1.19	34	15
1:A:6:LEU:HD22	1:A:6:LEU:H	0.96	1.19	71	14
1:B:167:ARG:O	1:B:171:THR:HG23	0.95	1.62	99	50
1:B:144:MET:C	1:B:145:TYR:HA	0.93	1.82	97	1
1:B:34:PRO:HG2	1:B:152:ASP:OD2	0.93	1.62	38	1
1:A:183:ASN:OD1	1:A:184:TRP:N	0.93	2.00	27	7
1:B:145:TYR:HA	1:B:145:TYR:N	0.92	1.78	97	1
1:B:144:MET:C	1:B:145:TYR:CA	0.92	2.37	97	1
1:B:180:GLU:OE1	1:B:183:ASN:ND2	0.86	2.08	64	50
1:B:12:HIS:CG	1:B:111:LEU:HD21	0.85	2.06	52	33
1:A:139:ASN:OD1	1:A:143:ARG:NH1	0.84	2.09	35	5
1:B:180:GLU:OE1	1:B:183:ASN:OD1	0.84	1.96	42	29
1:A:150:ILE:H	1:A:150:ILE:HD12	0.84	1.31	85	5
1:A:6:LEU:N	1:A:6:LEU:HD22	0.83	1.88	23	29
1:B:6:LEU:N	1:B:6:LEU:HD22	0.83	1.87	79	34
1:B:6:LEU:HD22	1:B:6:LEU:N	0.83	1.88	49	28
1:A:6:LEU:HD22	1:A:6:LEU:N	0.83	1.88	84	24
1:A:150:ILE:HD13	1:A:150:ILE:H	0.83	1.34	40	2
1:B:12:HIS:CD2	1:B:111:LEU:HD11	0.82	2.10	12	42
1:A:61:GLY:O	1:A:158:LYS:CE	0.82	2.27	92	1
1:A:150:ILE:HG22	1:A:151:LEU:N	0.81	1.90	76	1
1:A:194:ALA:HB1	1:A:198:CYS:SG	0.80	2.16	62	5
1:A:21:ASN:OD1	1:A:22:ALA:N	0.80	2.15	99	2
1:B:164:TYR:OH	1:B:190:LEU:O	0.79	2.01	89	3
1:B:144:MET:O	1:B:145:TYR:C	0.79	2.21	76	22
1:A:167:ARG:O	1:A:171:THR:HG23	0.77	1.78	94	46
1:B:74:ASN:OD1	1:B:75:GLU:N	0.77	2.17	4	7
1:B:150:ILE:HG23	1:B:151:LEU:H	0.77	1.39	93	9
1:A:179:GLN:HG3	1:A:180:GLU:OE1	0.77	1.79	97	13
1:A:150:ILE:HD12	1:A:150:ILE:O	0.77	1.78	86	1
1:A:150:ILE:HD11	1:A:172:LEU:HA	0.77	1.55	78	1
1:B:34:PRO:CG	1:B:152:ASP:OD2	0.76	2.32	38	1
1:A:179:GLN:HG2	1:A:180:GLU:OE2	0.76	1.80	97	7
1:A:6:LEU:CD2	1:A:6:LEU:H	0.76	1.94	50	14
1:B:6:LEU:H	1:B:6:LEU:CD2	0.76	1.93	46	16

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:6:LEU:CD2	1:B:6:LEU:H	0.76	1.94	69	9
1:A:150:ILE:HD13	1:A:150:ILE:N	0.75	1.97	42	5
1:A:6:LEU:H	1:A:6:LEU:CD2	0.74	1.95	24	19
1:A:144:MET:O	1:A:145:TYR:C	0.74	2.24	18	21
1:A:51:ASP:O	1:A:54:THR:OG1	0.74	2.04	77	3
1:A:150:ILE:HG23	1:A:151:LEU:H	0.74	1.40	88	11
1:A:150:ILE:HD12	1:A:150:ILE:N	0.74	1.98	24	4
1:B:166:ASP:OD2	1:B:167:ARG:NH2	0.73	2.21	43	3
1:B:144:MET:O	1:B:145:TYR:O	0.73	2.06	93	6
1:B:161:PHE:CG	1:B:218:CYS:SG	0.73	2.81	57	6
1:A:144:MET:O	1:A:145:TYR:CD1	0.73	2.41	78	2
1:A:6:LEU:O	1:A:6:LEU:HD23	0.73	1.82	66	1
1:A:91:ILE:HD11	1:A:97:ARG:CZ	0.73	2.14	31	4
1:A:53:ASN:OD1	1:A:54:THR:N	0.72	2.22	26	27
1:A:175:GLU:OE1	1:A:177:ALA:HB2	0.72	1.84	97	9
1:B:53:ASN:OD1	1:B:54:THR:N	0.72	2.23	75	18
1:A:12:HIS:CD2	1:A:111:LEU:HD11	0.72	2.19	69	44
1:A:81:ASP:OD1	1:A:82:ARG:N	0.72	2.23	48	10
1:B:175:GLU:OE1	1:B:177:ALA:HB2	0.72	1.85	68	1
1:A:143:ARG:NH2	1:A:170:LYS:NZ	0.71	2.38	43	1
1:B:150:ILE:N	1:B:150:ILE:HD12	0.71	2.00	57	4
1:B:32:PHE:CE1	1:B:62:HIS:NE2	0.71	2.58	33	9
1:A:157:PRO:HA	1:A:195:ASN:ND2	0.70	2.01	99	2
1:B:91:ILE:N	1:B:91:ILE:HD12	0.70	2.01	59	12
1:A:55:MET:O	1:A:58:THR:OG1	0.70	2.09	17	14
1:A:29:GLU:OE2	1:B:203:LYS:O	0.70	2.09	90	1
1:A:97:ARG:H	1:A:97:ARG:NE	0.70	1.85	87	2
1:A:139:ASN:ND2	1:A:167:ARG:NH1	0.70	2.40	3	1
1:B:95:GLN:N	1:B:95:GLN:NE2	0.70	2.40	26	9
1:A:150:ILE:N	1:A:150:ILE:HD12	0.70	2.00	85	2
1:A:108:THR:HG22	1:A:108:THR:O	0.69	1.87	100	10
1:B:108:THR:O	1:B:108:THR:HG22	0.69	1.86	73	15
1:A:145:TYR:O	1:A:145:TYR:CG	0.69	2.46	47	3
1:B:150:ILE:HG22	1:B:151:LEU:H	0.69	1.46	64	1
1:A:32:PHE:CZ	1:A:145:TYR:CD1	0.69	2.81	72	1
1:B:167:ARG:HH21	1:B:171:THR:N	0.69	1.85	39	8
1:B:91:ILE:HD12	1:B:91:ILE:N	0.69	2.02	49	7
1:B:95:GLN:NE2	1:B:95:GLN:N	0.69	2.40	30	4
1:B:96:MET:N	1:B:96:MET:SD	0.69	2.66	34	14
1:A:80:TRP:CE3	1:A:84:HIS:CE1	0.69	2.80	85	35
1:A:21:ASN:HD21	1:A:25:LYS:HZ3	0.69	1.30	92	2

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:150:ILE:HD12	1:A:150:ILE:H	0.69	1.46	54	2
1:A:100:ARG:CD	1:A:101:GLY:H	0.69	2.00	57	4
1:B:97:ARG:H	1:B:97:ARG:NE	0.69	1.86	88	3
1:B:108:THR:HG22	1:B:108:THR:O	0.68	1.88	2	17
1:B:32:PHE:CZ	1:B:145:TYR:CD2	0.68	2.81	43	1
1:A:161:PHE:CG	1:A:218:CYS:SG	0.68	2.84	69	1
1:A:41:SER:HB3	1:B:203:LYS:O	0.68	1.88	70	1
1:A:98:GLU:CD	1:A:100:ARG:HH22	0.68	1.91	85	14
1:B:92:ALA:HB3	1:B:95:GLN:OE1	0.68	1.88	43	21
1:B:81:ASP:OD1	1:B:82:ARG:N	0.68	2.27	49	4
1:A:92:ALA:HB3	1:A:95:GLN:OE1	0.68	1.89	9	24
1:A:6:LEU:HD23	1:A:6:LEU:O	0.68	1.88	70	1
1:A:143:ARG:O	1:A:143:ARG:CZ	0.68	2.42	17	7
1:A:179:GLN:HE22	1:A:182:LYS:NZ	0.68	1.87	69	4
1:B:171:THR:O	1:B:175:GLU:OE2	0.68	2.12	78	6
1:A:97:ARG:HE	1:A:97:ARG:H	0.67	1.32	32	1
1:A:108:THR:O	1:A:108:THR:HG22	0.67	1.89	47	7
1:B:184:TRP:CH2	1:B:189:LEU:HD23	0.67	2.25	58	13
1:B:7:GLN:O	1:B:9:GLN:OE1	0.67	2.12	89	15
1:B:161:PHE:CD2	1:B:218:CYS:SG	0.67	2.87	99	2
1:B:97:ARG:HE	1:B:98:GLU:H	0.67	1.32	11	9
1:B:143:ARG:NH1	1:B:154:ARG:NE	0.67	2.43	66	1
1:A:15:ILE:HG22	1:A:19:THR:OG1	0.67	1.90	28	13
1:A:5:ASN:HD21	1:A:7:GLN:NE2	0.66	1.88	91	6
1:A:139:ASN:ND2	1:A:143:ARG:NH1	0.66	2.43	35	5
1:B:159:GLU:N	1:B:159:GLU:OE1	0.66	2.28	48	14
1:A:150:ILE:HG23	1:A:151:LEU:N	0.66	2.05	100	13
1:B:92:ALA:HB3	1:B:95:GLN:NE2	0.66	2.05	30	13
1:A:6:LEU:N	1:A:6:LEU:CD2	0.66	2.59	9	17
1:A:80:TRP:CZ3	1:A:84:HIS:CE1	0.66	2.84	10	58
1:A:2:ILE:N	1:A:2:ILE:HD12	0.66	2.06	37	3
1:A:139:ASN:CG	1:A:167:ARG:HD3	0.66	2.11	51	1
1:B:150:ILE:HG23	1:B:151:LEU:N	0.66	2.06	44	13
1:A:139:ASN:CG	1:A:143:ARG:NH1	0.66	2.49	35	2
1:B:5:ASN:HD22	1:B:9:GLN:NE2	0.66	1.89	38	9
1:A:161:PHE:CD2	1:A:218:CYS:SG	0.66	2.88	69	1
1:B:6:LEU:N	1:B:6:LEU:CD2	0.65	2.59	10	22
1:A:159:GLU:N	1:A:159:GLU:OE1	0.65	2.29	86	16
1:A:97:ARG:NH1	1:A:100:ARG:CZ	0.65	2.59	75	3
1:A:140:LYS:NZ	1:A:143:ARG:NH2	0.65	2.44	14	3
1:B:80:TRP:CZ3	1:B:84:HIS:NE2	0.65	2.65	7	33

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:57:ASN:OD1	1:B:58:THR:N	0.65	2.29	52	2
1:B:80:TRP:CZ3	1:B:84:HIS:CE1	0.65	2.84	6	48
1:A:2:ILE:HD12	1:A:2:ILE:N	0.65	2.06	2	4
1:A:84:HIS:O	1:A:100:ARG:NH2	0.65	2.29	36	29
1:B:87:HIS:CE1	1:B:97:ARG:NH1	0.65	2.64	56	7
1:B:219:GLN:OE1	1:B:219:GLN:N	0.65	2.30	49	2
1:A:71:GLU:O	1:A:74:ASN:ND2	0.65	2.30	34	3
1:B:97:ARG:H	1:B:97:ARG:HE	0.65	1.35	88	3
1:A:2:ILE:HD13	1:A:2:ILE:H	0.65	1.52	1	10
1:B:142:VAL:O	1:B:145:TYR:CE1	0.65	2.50	11	1
1:A:61:GLY:O	1:A:158:LYS:HE3	0.65	1.92	92	1
1:A:2:ILE:C	1:A:2:ILE:HD13	0.64	2.13	68	1
1:A:5:ASN:ND2	1:A:9:GLN:NE2	0.64	2.46	9	7
1:B:50:GLN:O	1:B:53:ASN:OD1	0.64	2.15	87	26
1:B:154:ARG:O	1:B:167:ARG:NH2	0.64	2.31	14	6
1:A:180:GLU:O	1:A:183:ASN:OD1	0.64	2.15	37	7
1:A:2:ILE:H	1:A:2:ILE:HD13	0.64	1.52	24	8
1:A:150:ILE:HD12	1:A:185:MET:SD	0.64	2.33	78	2
1:B:6:LEU:CD2	1:B:6:LEU:N	0.64	2.60	41	32
1:A:21:ASN:ND2	1:A:25:LYS:NZ	0.64	2.46	92	3
1:B:155:GLN:HE22	1:B:195:ASN:ND2	0.64	1.91	87	4
1:B:81:ASP:OD2	1:B:100:ARG:NH1	0.64	2.31	81	16
1:A:150:ILE:HG22	1:A:151:LEU:H	0.64	1.51	76	1
1:A:150:ILE:CG2	1:A:151:LEU:N	0.64	2.60	76	11
1:A:143:ARG:O	1:A:143:ARG:NE	0.64	2.31	42	5
1:B:32:PHE:CE2	1:B:145:TYR:CZ	0.64	2.86	98	2
1:A:80:TRP:CZ3	1:A:84:HIS:NE2	0.64	2.66	87	16
1:A:97:ARG:H	1:A:97:ARG:HE	0.64	1.36	87	1
1:A:9:GLN:NE2	1:A:9:GLN:H	0.64	1.91	89	4
1:B:159:GLU:OE1	1:B:159:GLU:N	0.64	2.31	89	17
1:B:161:PHE:CD1	1:B:198:CYS:SG	0.64	2.91	54	2
1:B:2:ILE:HD12	1:B:2:ILE:N	0.64	2.07	69	1
1:B:98:GLU:O	1:B:100:ARG:NH2	0.64	2.31	35	1
1:B:100:ARG:NH2	1:B:102:SER:N	0.64	2.46	83	2
1:A:20:LEU:HD23	1:A:20:LEU:C	0.64	2.14	82	1
1:B:144:MET:SD	1:B:154:ARG:NH1	0.64	2.71	64	1
1:A:20:LEU:C	1:A:20:LEU:HD23	0.63	2.14	2	6
1:B:80:TRP:CE3	1:B:84:HIS:CE1	0.63	2.86	55	34
1:A:82:ARG:O	1:A:82:ARG:NE	0.63	2.32	82	5
1:A:139:ASN:HD21	1:A:143:ARG:NH1	0.63	1.92	80	4
1:B:32:PHE:CZ	1:B:145:TYR:CD1	0.63	2.86	8	2

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:6:LEU:HD13	1:B:6:LEU:O	0.63	1.94	70	1
1:B:150:ILE:HD12	1:B:150:ILE:N	0.63	2.09	39	3
1:A:91:ILE:HD12	1:A:91:ILE:N	0.63	2.09	66	2
1:A:6:LEU:CD2	1:A:6:LEU:N	0.63	2.62	47	14
1:B:32:PHE:CE2	1:B:145:TYR:CE2	0.63	2.87	23	3
1:B:63:GLN:NE2	1:B:64:ALA:N	0.63	2.47	28	1
1:B:120:HIS:ND1	1:B:121:ASN:N	0.63	2.47	74	19
1:A:87:HIS:H	1:A:97:ARG:HH22	0.63	1.35	49	4
1:A:195:ASN:N	1:A:198:CYS:SG	0.63	2.72	54	5
1:B:150:ILE:CG1	1:B:151:LEU:H	0.63	2.06	22	1
1:B:219:GLN:N	1:B:219:GLN:OE1	0.63	2.32	59	2
1:A:20:LEU:HD11	1:A:58:THR:HG21	0.63	1.71	74	4
1:A:150:ILE:HG12	1:A:151:LEU:N	0.63	2.09	94	2
1:A:184:TRP:CH2	1:B:184:TRP:CH2	0.63	2.87	3	18
1:A:20:LEU:HD23	1:A:55:MET:SD	0.63	2.34	31	30
1:B:56:LEU:O	1:B:56:LEU:HD23	0.63	1.94	7	5
1:B:175:GLU:N	1:B:175:GLU:OE1	0.62	2.32	92	1
1:B:143:ARG:NH2	1:B:144:MET:SD	0.62	2.72	29	6
1:B:17:PRO:O	1:B:21:ASN:ND2	0.62	2.33	47	13
1:A:73:ILE:HD11	1:A:134:ILE:CD1	0.62	2.24	56	8
1:A:150:ILE:HD12	1:A:151:LEU:H	0.62	1.53	69	5
1:A:159:GLU:OE1	1:A:159:GLU:N	0.62	2.32	70	23
1:B:5:ASN:HD21	1:B:7:GLN:NE2	0.62	1.93	91	3
1:B:56:LEU:HD23	1:B:56:LEU:O	0.62	1.95	2	2
1:A:82:ARG:NE	1:A:82:ARG:O	0.62	2.33	27	2
1:A:178:SER:OG	1:B:180:GLU:HG2	0.62	1.94	12	56
1:B:96:MET:SD	1:B:96:MET:N	0.62	2.73	89	26
1:A:144:MET:O	1:A:145:TYR:O	0.62	2.18	92	3
1:B:168:PHE:O	1:B:171:THR:OG1	0.62	2.18	62	56
1:B:150:ILE:H	1:B:150:ILE:HD12	0.62	1.54	98	2
1:A:154:ARG:NE	1:A:155:GLN:O	0.62	2.32	44	13
1:A:21:ASN:ND2	1:A:25:LYS:HZ3	0.62	1.93	92	3
1:B:82:ARG:NE	1:B:82:ARG:O	0.62	2.33	54	1
1:A:172:LEU:HD13	1:A:172:LEU:C	0.62	2.15	68	1
1:A:168:PHE:O	1:A:171:THR:OG1	0.62	2.18	21	63
1:A:5:ASN:ND2	1:A:7:GLN:NE2	0.62	2.47	18	6
1:B:97:ARG:HE	1:B:98:GLU:N	0.62	1.92	69	6
1:B:142:VAL:O	1:B:145:TYR:O	0.62	2.17	48	8
1:B:139:ASN:ND2	1:B:170:LYS:NZ	0.62	2.47	38	1
1:B:87:HIS:O	1:B:97:ARG:NH1	0.61	2.32	71	16
1:A:79:GLU:OE1	1:B:75:GLU:OE1	0.61	2.18	35	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:95:GLN:NE2	1:B:96:MET:O	0.61	2.32	11	7
1:A:2:ILE:HD13	1:A:118:MET:SD	0.61	2.34	48	10
1:A:16:SER:OG	1:A:18:ARG:CZ	0.61	2.48	52	1
1:A:97:ARG:NH2	1:A:100:ARG:NH2	0.61	2.48	95	5
1:B:143:ARG:HH12	1:B:167:ARG:NH2	0.61	1.94	37	1
1:A:195:ASN:ND2	1:A:196:PRO:HD2	0.61	2.09	54	2
1:B:20:LEU:HD11	1:B:58:THR:HG21	0.61	1.71	97	4
1:A:162:ARG:NH2	1:A:219:GLN:NE2	0.61	2.47	48	2
1:A:203:LYS:O	1:B:41:SER:OG	0.61	2.12	70	1
1:A:180:GLU:CB	1:B:180:GLU:HB2	0.61	2.26	26	100
1:A:97:ARG:HH21	1:A:100:ARG:NH2	0.61	1.94	12	8
1:A:96:MET:SD	1:A:120:HIS:CE1	0.61	2.94	26	17
1:A:7:GLN:O	1:A:9:GLN:OE1	0.61	2.19	89	12
1:A:50:GLN:O	1:A:54:THR:HG23	0.61	1.96	87	3
1:A:95:GLN:NE2	1:A:96:MET:O	0.61	2.34	37	7
1:A:11:VAL:HG22	1:A:12:HIS:N	0.61	2.11	6	29
1:A:84:HIS:O	1:A:100:ARG:NH1	0.61	2.34	37	12
1:A:80:TRP:CE3	1:A:84:HIS:CD2	0.61	2.89	22	10
1:B:12:HIS:NE2	1:B:48:THR:HG21	0.61	2.11	22	4
1:B:139:ASN:HD22	1:B:170:LYS:CE	0.61	2.08	43	2
1:A:116:GLY:O	1:A:120:HIS:ND1	0.61	2.34	10	13
1:B:63:GLN:OE1	1:B:63:GLN:N	0.60	2.33	85	2
1:A:167:ARG:HH21	1:A:171:THR:N	0.60	1.93	31	3
1:A:10:MET:N	1:A:10:MET:SD	0.60	2.74	30	21
1:B:68:MET:SD	1:B:68:MET:N	0.60	2.74	66	2
1:B:132:ARG:NH2	1:B:133:TRP:HE1	0.60	1.95	70	3
1:A:181:VAL:O	1:A:185:MET:SD	0.60	2.59	34	8
1:B:142:VAL:O	1:B:145:TYR:CD1	0.60	2.54	11	1
1:B:120:HIS:CG	1:B:121:ASN:N	0.60	2.70	85	79
1:B:68:MET:SD	1:B:140:LYS:NZ	0.60	2.75	11	16
1:A:96:MET:SD	1:A:96:MET:N	0.60	2.75	65	10
1:A:154:ARG:O	1:A:167:ARG:NH2	0.60	2.35	73	8
1:B:161:PHE:CD1	1:B:218:CYS:SG	0.60	2.94	22	4
1:B:68:MET:N	1:B:68:MET:SD	0.60	2.75	98	3
1:A:159:GLU:OE1	1:A:167:ARG:NH2	0.60	2.35	89	2
1:B:97:ARG:NE	1:B:97:ARG:H	0.60	1.94	78	2
1:A:97:ARG:NH1	1:A:100:ARG:NH1	0.60	2.50	50	3
1:A:196:PRO:O	1:A:200:THR:HG23	0.60	1.97	66	29
1:B:12:HIS:CG	1:B:111:LEU:HD11	0.60	2.31	62	21
1:B:12:HIS:CE1	1:B:50:GLN:HE22	0.60	2.15	21	10
1:A:18:ARG:HH21	1:A:22:ALA:CA	0.60	2.09	93	3

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:80:TRP:CE3	1:B:84:HIS:CD2	0.60	2.90	53	24
1:B:96:MET:SD	1:B:120:HIS:NE2	0.60	2.75	64	13
1:B:96:MET:SD	1:B:117:TRP:NE1	0.60	2.75	11	6
1:B:195:ASN:N	1:B:198:CYS:SG	0.60	2.75	22	4
1:A:132:ARG:NH1	1:B:204:ALA:O	0.60	2.35	88	1
1:B:5:ASN:ND2	1:B:7:GLN:HE21	0.60	1.95	96	2
1:B:76:GLU:OE1	1:B:133:TRP:CE2	0.59	2.55	47	17
1:B:86:VAL:N	1:B:100:ARG:HH12	0.59	1.95	72	9
1:B:139:ASN:ND2	1:B:143:ARG:HE	0.59	1.95	92	2
1:A:119:THR:O	1:A:119:THR:HG22	0.59	1.97	89	2
1:B:5:ASN:HD21	1:B:7:GLN:HE21	0.59	1.38	96	2
1:B:143:ARG:CZ	1:B:154:ARG:NH2	0.59	2.65	60	1
1:B:184:TRP:CD1	1:B:188:THR:OG1	0.59	2.55	21	61
1:A:4:GLN:NE2	1:A:8:GLY:O	0.59	2.35	41	20
1:A:10:MET:SD	1:A:10:MET:N	0.59	2.75	51	15
1:A:153:ILE:CG2	1:A:153:ILE:O	0.59	2.50	78	4
1:B:50:GLN:OE1	1:B:111:LEU:HD13	0.59	1.97	12	6
1:A:30:LYS:O	1:A:31:ALA:C	0.59	2.41	27	100
1:A:68:MET:SD	1:A:68:MET:N	0.59	2.75	49	9
1:B:11:VAL:HG22	1:B:12:HIS:N	0.59	2.13	33	7
1:B:30:LYS:O	1:B:31:ALA:C	0.59	2.41	11	100
1:B:114:GLN:N	1:B:114:GLN:OE1	0.59	2.35	36	8
1:A:21:ASN:HD21	1:A:25:LYS:NZ	0.59	1.94	92	3
1:A:12:HIS:CE1	1:A:50:GLN:NE2	0.59	2.70	7	7
1:B:32:PHE:CZ	1:B:62:HIS:NE2	0.59	2.71	78	2
1:B:5:ASN:ND2	1:B:7:GLN:NE2	0.59	2.51	100	3
1:A:161:PHE:CD1	1:A:198:CYS:SG	0.59	2.95	69	1
1:B:50:GLN:O	1:B:53:ASN:ND2	0.59	2.36	3	9
1:B:5:ASN:OD1	1:B:6:LEU:N	0.59	2.36	62	15
1:A:68:MET:N	1:A:68:MET:SD	0.59	2.75	24	3
1:A:155:GLN:O	1:A:195:ASN:OD1	0.59	2.21	99	2
1:B:163:ASP:O	1:B:166:ASP:OD2	0.59	2.19	53	2
1:A:143:ARG:NH2	1:A:170:LYS:HZ2	0.59	1.95	43	1
1:A:184:TRP:CD1	1:A:188:THR:OG1	0.59	2.56	59	60
1:A:4:GLN:NE2	1:A:4:GLN:O	0.59	2.36	11	4
1:A:16:SER:OG	1:A:18:ARG:NH2	0.59	2.36	53	1
1:B:181:VAL:O	1:B:185:MET:SD	0.59	2.61	100	25
1:A:87:HIS:O	1:A:97:ARG:NH1	0.59	2.36	13	22
1:A:150:ILE:HD12	1:A:150:ILE:C	0.59	2.18	86	1
1:B:164:TYR:CE1	1:B:193:ASN:OD1	0.59	2.55	34	3
1:A:153:ILE:O	1:A:193:ASN:ND2	0.59	2.36	44	32

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:145:TYR:O	1:A:145:TYR:CD2	0.59	2.55	80	3
1:A:15:ILE:HD13	1:A:15:ILE:H	0.59	1.58	80	3
1:A:203:LYS:NZ	1:B:30:LYS:NZ	0.59	2.50	84	1
1:A:119:THR:HG22	1:A:119:THR:O	0.59	1.98	34	1
1:A:4:GLN:CD	1:A:5:ASN:O	0.59	2.40	15	14
1:A:95:GLN:N	1:A:95:GLN:OE1	0.59	2.36	73	10
1:A:15:ILE:H	1:A:15:ILE:HD13	0.59	1.58	76	3
1:A:5:ASN:OD1	1:A:6:LEU:N	0.59	2.36	23	35
1:B:15:ILE:H	1:B:15:ILE:HD13	0.59	1.58	54	1
1:B:150:ILE:CG2	1:B:151:LEU:H	0.59	2.11	29	6
1:B:211:LEU:HD12	1:B:212:GLU:N	0.59	2.13	34	3
1:A:18:ARG:HH21	1:A:22:ALA:N	0.59	1.96	13	3
1:B:11:VAL:HG12	1:B:12:HIS:N	0.58	2.13	39	27
1:A:95:GLN:OE1	1:A:95:GLN:N	0.58	2.36	58	10
1:A:140:LYS:NZ	1:A:144:MET:SD	0.58	2.76	78	3
1:B:150:ILE:HG13	1:B:151:LEU:H	0.58	1.57	35	1
1:A:11:VAL:HG12	1:A:12:HIS:N	0.58	2.14	27	28
1:A:18:ARG:O	1:A:21:ASN:ND2	0.58	2.36	96	4
1:A:63:GLN:O	1:A:67:GLN:NE2	0.58	2.36	57	4
1:A:13:GLN:N	1:A:13:GLN:NE2	0.58	2.50	14	1
1:A:214:MET:O	1:A:218:CYS:SG	0.58	2.62	69	1
1:B:20:LEU:HD23	1:B:55:MET:SD	0.58	2.38	82	28
1:A:96:MET:N	1:A:96:MET:SD	0.58	2.75	11	10
1:B:7:GLN:N	1:B:7:GLN:OE1	0.58	2.37	44	5
1:A:68:MET:SD	1:A:140:LYS:NZ	0.58	2.76	52	8
1:B:7:GLN:NE2	1:B:7:GLN:O	0.58	2.36	67	3
1:A:184:TRP:NE1	1:A:188:THR:OG1	0.58	2.36	49	9
1:A:4:GLN:NE2	1:A:5:ASN:O	0.58	2.37	43	10
1:B:7:GLN:O	1:B:9:GLN:NE2	0.58	2.36	9	35
1:B:114:GLN:OE1	1:B:114:GLN:N	0.58	2.36	81	6
1:A:38:PRO:HB3	1:B:207:PRO:HG3	0.58	1.75	33	1
1:B:4:GLN:NE2	1:B:5:ASN:O	0.58	2.37	68	15
1:B:2:ILE:HD13	1:B:118:MET:SD	0.58	2.39	46	25
1:B:95:GLN:OE1	1:B:95:GLN:N	0.58	2.36	8	9
1:B:143:ARG:NH1	1:B:152:ASP:OD1	0.58	2.36	100	1
1:A:13:GLN:NE2	1:A:13:GLN:N	0.58	2.51	94	2
1:A:96:MET:SD	1:A:120:HIS:NE2	0.58	2.77	38	22
1:B:80:TRP:CH2	1:B:84:HIS:NE2	0.58	2.72	29	25
1:A:60:GLY:O	1:A:63:GLN:NE2	0.58	2.36	39	7
1:A:18:ARG:CZ	1:A:21:ASN:HD22	0.58	2.12	13	4
1:A:100:ARG:CG	1:A:101:GLY:N	0.58	2.67	57	4

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:150:ILE:CG1	1:A:151:LEU:H	0.58	2.12	16	1
1:B:153:ILE:O	1:B:193:ASN:ND2	0.58	2.37	29	55
1:A:9:GLN:N	1:A:9:GLN:OE1	0.58	2.36	72	8
1:B:10:MET:N	1:B:10:MET:SD	0.58	2.76	67	13
1:A:195:ASN:ND2	1:A:197:ASP:OD1	0.58	2.37	70	2
1:A:5:ASN:HD22	1:A:7:GLN:NE2	0.58	1.97	53	2
1:B:97:ARG:HH12	1:B:100:ARG:NE	0.58	1.97	97	1
1:A:180:GLU:HB2	1:B:180:GLU:HB2	0.58	1.74	26	100
1:B:152:ASP:O	1:B:152:ASP:OD1	0.58	2.22	93	7
1:A:98:GLU:OE2	1:A:100:ARG:NH1	0.58	2.37	74	12
1:A:139:ASN:OD1	1:A:140:LYS:N	0.58	2.36	15	6
1:B:218:CYS:O	1:B:221:VAL:HG23	0.58	1.98	34	3
1:B:4:GLN:CD	1:B:5:ASN:O	0.58	2.43	96	7
1:B:177:ALA:O	1:B:182:LYS:NZ	0.58	2.37	11	17
1:A:18:ARG:O	1:A:21:ASN:OD1	0.58	2.22	54	2
1:B:84:HIS:O	1:B:100:ARG:NH2	0.57	2.37	24	17
1:A:184:TRP:CH2	1:A:189:LEU:HD23	0.57	2.34	68	4
1:A:91:ILE:HD11	1:A:97:ARG:NH2	0.57	2.14	80	1
1:A:4:GLN:O	1:A:4:GLN:NE2	0.57	2.37	65	2
1:A:54:THR:O	1:A:58:THR:HG23	0.57	1.99	57	14
1:B:167:ARG:NH2	1:B:171:THR:OG1	0.57	2.37	39	7
1:B:161:PHE:CE1	1:B:198:CYS:SG	0.57	2.96	54	7
1:B:12:HIS:NE2	1:B:50:GLN:NE2	0.57	2.53	75	7
1:A:155:GLN:N	1:A:164:TYR:CE1	0.57	2.72	31	4
1:A:167:ARG:NH1	1:A:171:THR:HG23	0.57	2.14	84	7
1:A:97:ARG:HE	1:A:100:ARG:NH2	0.57	1.98	12	3
1:B:139:ASN:ND2	1:B:170:LYS:CE	0.57	2.68	38	2
1:A:143:ARG:NH2	1:B:192:GLN:OE1	0.57	2.38	35	1
1:A:15:ILE:HD12	1:A:15:ILE:H	0.57	1.60	68	10
1:A:9:GLN:OE1	1:A:9:GLN:N	0.57	2.38	57	11
1:A:87:HIS:H	1:A:97:ARG:NH2	0.57	1.96	24	2
1:B:143:ARG:HH12	1:B:167:ARG:HH21	0.57	1.43	37	1
1:B:15:ILE:HD12	1:B:15:ILE:H	0.57	1.60	20	11
1:B:23:TRP:CD1	1:B:55:MET:SD	0.57	2.98	64	11
1:B:72:THR:HG21	1:B:137:GLY:HA2	0.57	1.77	67	4
1:A:195:ASN:OD1	1:A:197:ASP:OD1	0.57	2.22	74	7
1:A:143:ARG:NE	1:A:143:ARG:O	0.57	2.38	7	1
1:A:72:THR:HG21	1:A:137:GLY:HA2	0.57	1.77	53	5
1:A:120:HIS:CG	1:A:121:ASN:N	0.57	2.73	91	76
1:B:98:GLU:N	1:B:98:GLU:OE1	0.57	2.38	68	9
1:B:139:ASN:ND2	1:B:170:LYS:HE3	0.57	2.15	43	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:15:ILE:H	1:B:15:ILE:HD12	0.56	1.60	40	13
1:B:35:GLU:O	1:B:39:MET:SD	0.56	2.63	82	19
1:A:167:ARG:NH1	1:A:171:THR:CG2	0.56	2.68	39	7
1:B:124:ILE:HD12	1:B:124:ILE:N	0.56	2.15	9	17
1:B:214:MET:O	1:B:218:CYS:SG	0.56	2.63	47	6
1:A:96:MET:SD	1:A:97:ARG:N	0.56	2.78	46	12
1:B:32:PHE:CE1	1:B:145:TYR:CD1	0.56	2.93	18	2
1:B:143:ARG:O	1:B:143:ARG:NE	0.56	2.39	42	3
1:B:71:GLU:O	1:B:74:ASN:OD1	0.56	2.23	84	13
1:A:17:PRO:O	1:A:21:ASN:ND2	0.56	2.37	35	5
1:B:139:ASN:HD21	1:B:143:ARG:HE	0.56	1.43	12	2
1:B:98:GLU:O	1:B:100:ARG:NH1	0.56	2.37	34	3
1:B:164:TYR:OH	1:B:193:ASN:ND2	0.56	2.38	34	3
1:B:143:ARG:NH1	1:B:170:LYS:NZ	0.56	2.52	28	1
1:A:76:GLU:OE1	1:A:133:TRP:CE2	0.56	2.58	2	19
1:A:153:ILE:HG23	1:A:153:ILE:O	0.56	2.00	77	4
1:B:12:HIS:HB2	1:B:115:ILE:HD11	0.56	1.78	95	25
1:A:153:ILE:O	1:A:153:ILE:HG23	0.56	2.00	32	2
1:B:15:ILE:HD13	1:B:15:ILE:H	0.56	1.61	12	4
1:A:83:LEU:HD23	1:A:83:LEU:O	0.56	2.00	54	1
1:B:143:ARG:HH12	1:B:154:ARG:NE	0.56	1.98	66	1
1:B:153:ILE:CG2	1:B:153:ILE:O	0.56	2.52	33	6
1:A:162:ARG:NH2	1:A:219:GLN:HE22	0.56	1.99	23	2
1:A:81:ASP:OD1	1:A:100:ARG:NH1	0.56	2.38	69	1
1:B:153:ILE:CD1	1:B:153:ILE:N	0.56	2.68	99	1
1:A:139:ASN:ND2	1:A:167:ARG:NE	0.56	2.52	38	1
1:A:184:TRP:CZ3	1:B:184:TRP:CZ3	0.56	2.93	82	14
1:B:100:ARG:NH2	1:B:102:SER:H	0.56	1.98	83	2
1:A:197:ASP:OD1	1:A:198:CYS:N	0.56	2.39	70	2
1:A:98:GLU:O	1:A:100:ARG:NH1	0.56	2.39	53	10
1:A:150:ILE:HD13	1:A:185:MET:SD	0.56	2.40	31	3
1:A:152:ASP:O	1:A:152:ASP:CG	0.56	2.44	15	13
1:B:153:ILE:O	1:B:153:ILE:HG23	0.56	2.00	28	6
1:B:166:ASP:CG	1:B:167:ARG:N	0.56	2.59	98	2
1:B:153:ILE:HG23	1:B:153:ILE:O	0.56	2.00	43	7
1:A:95:GLN:O	1:A:96:MET:SD	0.56	2.64	37	10
1:B:87:HIS:O	1:B:97:ARG:NH2	0.56	2.38	74	6
1:B:145:TYR:CD1	1:B:145:TYR:C	0.56	2.79	85	5
1:B:143:ARG:CZ	1:B:143:ARG:O	0.56	2.53	42	4
1:A:78:ALA:O	1:A:81:ASP:OD1	0.56	2.24	58	10
1:B:140:LYS:O	1:B:144:MET:SD	0.56	2.63	85	5

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:69:LEU:O	1:B:73:ILE:HD13	0.56	2.01	93	3
1:B:124:ILE:N	1:B:124:ILE:HD12	0.56	2.15	4	26
1:A:150:ILE:CD1	1:A:150:ILE:N	0.56	2.68	42	5
1:B:20:LEU:HD11	1:B:58:THR:OG1	0.56	2.01	48	15
1:A:140:LYS:HZ2	1:A:143:ARG:NH2	0.56	1.98	14	2
1:B:97:ARG:HE	1:B:100:ARG:HH12	0.56	1.43	90	1
1:B:97:ARG:NH1	1:B:100:ARG:NE	0.56	2.54	97	1
1:A:4:GLN:OE1	1:A:10:MET:N	0.56	2.39	55	15
1:A:7:GLN:O	1:A:9:GLN:NE2	0.56	2.39	68	19
1:A:12:HIS:HB2	1:A:115:ILE:HD11	0.56	1.78	62	7
1:A:69:LEU:O	1:A:73:ILE:HD13	0.56	2.01	89	7
1:A:96:MET:SD	1:A:97:ARG:O	0.56	2.64	75	7
1:A:150:ILE:CG2	1:A:151:LEU:H	0.56	2.14	25	3
1:B:63:GLN:CD	1:B:64:ALA:N	0.56	2.59	1	13
1:B:195:ASN:OD1	1:B:197:ASP:OD1	0.56	2.23	74	4
1:B:9:GLN:NE2	1:B:9:GLN:H	0.56	1.99	34	4
1:B:98:GLU:OE2	1:B:100:ARG:NE	0.56	2.37	15	2
1:B:5:ASN:HD22	1:B:9:GLN:HE21	0.56	1.43	99	4
1:B:166:ASP:OD1	1:B:167:ARG:N	0.56	2.39	53	2
1:A:15:ILE:H	1:A:15:ILE:HD12	0.55	1.61	83	8
1:B:154:ARG:NH1	1:B:155:GLN:O	0.55	2.40	32	3
1:B:167:ARG:NH1	1:B:171:THR:OG1	0.55	2.39	33	3
1:A:145:TYR:CD1	1:A:145:TYR:O	0.55	2.60	52	1
1:A:7:GLN:NE2	1:A:7:GLN:N	0.55	2.54	52	1
1:A:64:ALA:O	1:A:68:MET:SD	0.55	2.65	49	12
1:B:5:ASN:ND2	1:B:6:LEU:H	0.55	1.99	76	6
1:A:97:ARG:NH2	1:A:113:GLU:OE2	0.55	2.40	2	4
1:A:192:GLN:NE2	1:A:193:ASN:ND2	0.55	2.53	66	2
1:A:7:GLN:HB3	1:A:9:GLN:HE22	0.55	1.61	89	3
1:B:143:ARG:NH2	1:B:152:ASP:OD2	0.55	2.38	70	1
1:A:153:ILE:O	1:A:153:ILE:CG2	0.55	2.54	33	2
1:A:175:GLU:OE1	1:A:176:GLN:C	0.55	2.44	67	10
1:A:198:CYS:SG	1:A:202:LEU:HD11	0.55	2.41	42	93
1:A:87:HIS:O	1:A:97:ARG:NH2	0.55	2.39	100	10
1:A:18:ARG:HE	1:A:18:ARG:H	0.55	1.44	53	1
1:B:164:TYR:CZ	1:B:193:ASN:OD1	0.55	2.59	34	3
1:A:180:GLU:N	1:A:180:GLU:CD	0.55	2.59	26	54
1:A:180:GLU:CD	1:A:180:GLU:N	0.55	2.59	28	46
1:A:159:GLU:OE2	1:A:167:ARG:NH2	0.55	2.40	37	3
1:B:100:ARG:NH2	1:B:102:SER:OG	0.55	2.39	50	1
1:A:167:ARG:NH2	1:A:171:THR:OG1	0.55	2.40	31	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:143:ARG:NH1	1:B:170:LYS:HZ3	0.55	1.98	28	1
1:A:35:GLU:O	1:A:39:MET:SD	0.55	2.64	37	35
1:B:97:ARG:H	1:B:97:ARG:CD	0.55	2.15	54	1
1:B:30:LYS:NZ	1:B:35:GLU:OE1	0.55	2.39	93	1
1:A:97:ARG:NH2	1:A:98:GLU:OE1	0.55	2.40	64	3
1:A:143:ARG:HH22	1:A:170:LYS:NZ	0.55	1.99	43	1
1:B:150:ILE:HD13	1:B:175:GLU:OE2	0.55	2.02	4	1
1:B:143:ARG:HH21	1:B:144:MET:CE	0.55	2.15	45	7
1:B:155:GLN:NE2	1:B:195:ASN:H	0.55	2.00	75	10
1:B:175:GLU:OE2	1:B:176:GLN:N	0.55	2.40	35	5
1:A:179:GLN:OE1	1:A:180:GLU:N	0.55	2.40	92	3
1:A:150:ILE:HD12	1:A:151:LEU:N	0.55	2.16	34	3
1:A:7:GLN:O	1:A:7:GLN:CG	0.55	2.55	53	6
1:A:10:MET:HG3	1:A:119:THR:HG21	0.55	1.79	79	3
1:B:12:HIS:HB3	1:B:115:ILE:HD11	0.55	1.78	28	24
1:A:12:HIS:CG	1:A:111:LEU:HD21	0.55	2.37	47	20
1:B:195:ASN:ND2	1:B:197:ASP:OD1	0.55	2.40	93	7
1:B:97:ARG:NH2	1:B:98:GLU:OE1	0.55	2.40	73	7
1:B:167:ARG:HH21	1:B:171:THR:CA	0.55	2.15	39	5
1:A:35:GLU:OE2	1:B:204:ALA:HB2	0.55	2.01	86	1
1:A:150:ILE:H	1:A:150:ILE:CD1	0.55	2.08	32	3
1:A:175:GLU:OE1	1:A:175:GLU:N	0.55	2.40	55	7
1:A:7:GLN:N	1:A:7:GLN:OE1	0.55	2.39	95	4
1:B:150:ILE:N	1:B:150:ILE:CD1	0.55	2.67	57	2
1:A:150:ILE:HD11	1:A:168:PHE:CD1	0.55	2.37	84	3
1:B:173:ARG:NE	1:B:173:ARG:O	0.55	2.40	98	2
1:B:150:ILE:HG23	1:B:175:GLU:OE2	0.55	2.02	39	1
1:B:76:GLU:OE2	1:B:132:ARG:NH2	0.55	2.40	86	5
1:A:92:ALA:HB3	1:A:95:GLN:HG2	0.55	1.79	31	10
1:B:175:GLU:OE1	1:B:175:GLU:CA	0.55	2.55	12	1
1:A:41:SER:CB	1:B:203:LYS:O	0.55	2.55	70	1
1:B:150:ILE:O	1:B:153:ILE:N	0.55	2.26	64	1
1:B:140:LYS:NZ	1:B:143:ARG:HH21	0.55	2.00	24	1
1:B:150:ILE:HG23	1:B:151:LEU:HD22	0.55	1.78	85	1
1:B:153:ILE:O	1:B:153:ILE:CG2	0.54	2.54	93	7
1:B:155:GLN:NE2	1:B:195:ASN:ND2	0.54	2.56	87	3
1:A:100:ARG:HG3	1:A:101:GLY:N	0.54	2.17	47	4
1:B:81:ASP:OD2	1:B:100:ARG:NH2	0.54	2.40	20	2
1:B:145:TYR:C	1:B:145:TYR:CD1	0.54	2.79	41	2
1:B:144:MET:O	1:B:145:TYR:CG	0.54	2.60	20	1
1:B:87:HIS:H	1:B:97:ARG:HH22	0.54	1.45	59	5

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:76:GLU:OE1	1:A:133:TRP:CZ2	0.54	2.60	24	16
1:A:12:HIS:H	1:A:12:HIS:CD2	0.54	2.19	86	5
1:B:5:ASN:HD22	1:B:6:LEU:H	0.54	1.46	90	6
1:B:96:MET:SD	1:B:97:ARG:O	0.54	2.65	95	6
1:B:175:GLU:OE1	1:B:175:GLU:N	0.54	2.40	67	5
1:B:96:MET:SD	1:B:120:HIS:CE1	0.54	3.00	27	5
1:A:179:GLN:NE2	1:A:182:LYS:NZ	0.54	2.56	69	4
1:A:7:GLN:N	1:A:7:GLN:NE2	0.54	2.56	97	1
1:A:152:ASP:CG	1:A:152:ASP:O	0.54	2.45	65	16
1:A:16:SER:OG	1:A:18:ARG:NH1	0.54	2.40	96	4
1:B:95:GLN:CG	1:B:96:MET:N	0.54	2.70	7	7
1:A:37:ILE:HB	1:A:38:PRO:HD3	0.54	1.79	88	4
1:A:4:GLN:NE2	1:A:10:MET:SD	0.54	2.80	88	1
1:A:37:ILE:CD1	1:A:139:ASN:ND2	0.54	2.70	51	1
1:B:63:GLN:OE1	1:B:67:GLN:NE2	0.54	2.39	28	1
1:A:12:HIS:CE1	1:A:112:GLN:HE22	0.54	2.20	96	3
1:A:189:LEU:HD21	1:A:193:ASN:ND2	0.54	2.17	92	3
1:B:143:ARG:NE	1:B:143:ARG:O	0.54	2.40	7	5
1:A:177:ALA:O	1:A:182:LYS:NZ	0.54	2.40	99	2
1:B:66:MET:SD	1:B:70:LYS:NZ	0.54	2.76	98	2
1:B:78:ALA:O	1:B:81:ASP:OD1	0.54	2.26	59	4
1:A:139:ASN:HD22	1:A:167:ARG:NH1	0.54	1.99	3	1
1:B:84:HIS:O	1:B:100:ARG:NH1	0.54	2.40	11	13
1:B:83:LEU:HD23	1:B:83:LEU:O	0.54	2.03	95	4
1:A:150:ILE:N	1:A:150:ILE:CD1	0.54	2.68	85	3
1:A:81:ASP:CG	1:A:100:ARG:NH1	0.54	2.61	83	2
1:A:61:GLY:O	1:A:158:LYS:NZ	0.54	2.40	92	1
1:B:86:VAL:HG12	1:B:100:ARG:HH11	0.54	1.62	82	6
1:B:142:VAL:O	1:B:145:TYR:CD2	0.54	2.60	40	2
1:A:79:GLU:OE2	1:A:82:ARG:NH1	0.54	2.41	100	2
1:B:95:GLN:N	1:B:95:GLN:OE1	0.54	2.41	38	6
1:A:50:GLN:H	1:A:114:GLN:HE22	0.54	1.45	8	6
1:B:154:ARG:CZ	1:B:155:GLN:O	0.54	2.56	87	4
1:A:205:LEU:HD13	1:A:213:GLU:OE1	0.54	2.02	17	8
1:B:7:GLN:CG	1:B:7:GLN:O	0.54	2.56	48	3
1:A:86:VAL:HG13	1:A:97:ARG:NH2	0.54	2.18	74	2
1:A:83:LEU:O	1:A:83:LEU:HD23	0.54	2.03	99	1
1:A:203:LYS:HZ2	1:B:38:PRO:CG	0.54	2.15	35	1
1:B:83:LEU:O	1:B:83:LEU:HD23	0.54	2.03	15	6
1:B:153:ILE:N	1:B:153:ILE:CD1	0.54	2.69	54	1
1:A:100:ARG:HH22	1:A:108:THR:CG2	0.54	2.14	84	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:25:LYS:O	1:B:29:GLU:OE1	0.54	2.26	84	20
1:B:86:VAL:HG23	1:B:100:ARG:HH21	0.54	1.63	96	2
1:A:192:GLN:NE2	1:A:192:GLN:O	0.54	2.41	69	5
1:B:7:GLN:OE1	1:B:7:GLN:N	0.54	2.41	4	4
1:B:87:HIS:O	1:B:87:HIS:CG	0.54	2.60	46	5
1:B:92:ALA:HB3	1:B:95:GLN:HG2	0.54	1.79	47	5
1:A:5:ASN:HD22	1:A:7:GLN:HE22	0.54	1.46	53	2
1:B:5:ASN:OD1	1:B:7:GLN:NE2	0.54	2.40	100	2
1:B:4:GLN:CD	1:B:4:GLN:O	0.54	2.47	90	4
1:B:76:GLU:OE1	1:B:133:TRP:CZ2	0.54	2.61	47	16
1:B:163:ASP:OD1	1:B:167:ARG:NH1	0.54	2.41	66	5
1:A:155:GLN:NE2	1:A:195:ASN:H	0.54	2.01	78	5
1:A:71:GLU:OE1	1:A:71:GLU:N	0.54	2.41	88	1
1:B:160:PRO:O	1:B:163:ASP:OD2	0.53	2.25	48	7
1:A:44:SER:O	1:A:131:LYS:NZ	0.53	2.41	69	15
1:A:192:GLN:O	1:A:199:LYS:NZ	0.53	2.39	82	8
1:A:12:HIS:NE2	1:A:111:LEU:HD11	0.53	2.18	16	26
1:B:118:MET:SD	1:B:118:MET:O	0.53	2.67	85	10
1:A:50:GLN:O	1:A:53:ASN:OD1	0.53	2.26	22	27
1:B:155:GLN:OE1	1:B:195:ASN:ND2	0.53	2.42	51	8
1:B:81:ASP:OD1	1:B:100:ARG:NH2	0.53	2.41	99	1
1:A:154:ARG:NH1	1:A:195:ASN:OD1	0.53	2.41	99	2
1:B:5:ASN:OD1	1:B:9:GLN:NE2	0.53	2.41	66	2
1:A:81:ASP:C	1:A:81:ASP:OD1	0.53	2.46	73	6
1:A:7:GLN:OE1	1:A:7:GLN:N	0.53	2.42	91	3
1:B:179:GLN:H	1:B:179:GLN:CD	0.53	2.05	82	3
1:B:171:THR:O	1:B:175:GLU:OE1	0.53	2.27	8	11
1:B:12:HIS:CD2	1:B:111:LEU:CD1	0.53	2.91	14	14
1:B:192:GLN:NE2	1:B:192:GLN:O	0.53	2.42	51	4
1:B:10:MET:SD	1:B:10:MET:O	0.53	2.67	62	3
1:A:7:GLN:CG	1:A:7:GLN:O	0.53	2.55	98	2
1:B:63:GLN:H	1:B:63:GLN:CD	0.53	2.05	85	1
1:B:113:GLU:N	1:B:113:GLU:OE1	0.53	2.42	52	1
1:A:12:HIS:CD2	1:A:111:LEU:CD1	0.53	2.91	16	26
1:B:7:GLN:NE2	1:B:9:GLN:CD	0.53	2.62	49	4
1:A:23:TRP:CD1	1:A:55:MET:SD	0.53	3.01	72	15
1:B:9:GLN:N	1:B:9:GLN:CD	0.53	2.62	34	4
1:A:7:GLN:CB	1:A:9:GLN:HE22	0.53	2.17	69	4
1:B:142:VAL:O	1:B:145:TYR:CG	0.53	2.62	40	1
1:A:172:LEU:CD2	1:A:185:MET:SD	0.53	2.97	68	1
1:B:95:GLN:O	1:B:96:MET:SD	0.53	2.66	52	12

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:12:HIS:NE2	1:A:50:GLN:OE1	0.53	2.42	14	5
1:B:68:MET:O	1:B:68:MET:SD	0.53	2.67	41	9
1:B:98:GLU:OE1	1:B:99:PRO:O	0.53	2.26	8	26
1:B:12:HIS:NE2	1:B:111:LEU:HD11	0.53	2.19	94	17
1:B:152:ASP:CG	1:B:152:ASP:O	0.53	2.47	3	7
1:A:79:GLU:CD	1:A:82:ARG:NH1	0.53	2.62	55	4
1:B:173:ARG:CZ	1:B:173:ARG:O	0.53	2.57	67	2
1:A:97:ARG:CZ	1:A:98:GLU:OE2	0.53	2.57	12	3
1:B:120:HIS:CD2	1:B:121:ASN:H	0.53	2.22	25	5
1:B:75:GLU:OE1	1:B:76:GLU:OE2	0.53	2.27	73	9
1:A:175:GLU:N	1:A:175:GLU:OE1	0.53	2.42	56	6
1:A:32:PHE:CZ	1:A:145:TYR:CE1	0.53	2.97	72	1
1:B:32:PHE:O	1:B:145:TYR:CE1	0.53	2.61	100	1
1:A:143:ARG:CD	1:A:154:ARG:O	0.53	2.56	17	1
1:B:80:TRP:CZ3	1:B:84:HIS:CD2	0.53	2.97	11	15
1:A:141:ILE:O	1:A:144:MET:HG2	0.53	2.04	42	6
1:A:113:GLU:N	1:A:113:GLU:OE1	0.53	2.42	88	1
1:A:166:ASP:OD2	1:A:167:ARG:NH2	0.53	2.42	57	1
1:B:219:GLN:O	1:B:219:GLN:OE1	0.52	2.27	49	4
1:A:7:GLN:NE2	1:A:9:GLN:OE1	0.52	2.42	96	5
1:B:7:GLN:O	1:B:7:GLN:CG	0.52	2.56	58	1
1:B:91:ILE:N	1:B:91:ILE:CD1	0.52	2.72	24	15
1:A:5:ASN:ND2	1:A:9:GLN:CG	0.52	2.72	19	7
1:B:118:MET:O	1:B:118:MET:SD	0.52	2.68	45	12
1:B:175:GLU:CA	1:B:175:GLU:OE1	0.52	2.58	62	3
1:A:98:GLU:N	1:A:98:GLU:OE1	0.52	2.42	14	4
1:B:97:ARG:NE	1:B:98:GLU:OE2	0.52	2.43	14	1
1:A:139:ASN:ND2	1:A:167:ARG:HE	0.52	2.02	38	1
1:B:86:VAL:CG1	1:B:100:ARG:NH1	0.52	2.73	98	5
1:A:97:ARG:HH11	1:A:100:ARG:NH2	0.52	2.03	75	1
1:A:67:GLN:OE1	1:A:68:MET:SD	0.52	2.67	89	3
1:B:192:GLN:O	1:B:199:LYS:NZ	0.52	2.42	33	3
1:B:210:THR:HG1	1:B:213:GLU:CD	0.52	2.06	88	6
1:A:32:PHE:CE1	1:A:145:TYR:CE2	0.52	2.97	64	1
1:B:155:GLN:N	1:B:164:TYR:CE1	0.52	2.78	67	3
1:B:84:HIS:O	1:B:100:ARG:CZ	0.52	2.58	72	9
1:B:12:HIS:CE1	1:B:50:GLN:NE2	0.52	2.78	22	10
1:B:68:MET:SD	1:B:68:MET:O	0.52	2.68	20	3
1:A:9:GLN:N	1:A:9:GLN:CD	0.52	2.63	69	2
1:B:143:ARG:NH1	1:B:152:ASP:OD2	0.52	2.43	100	1
1:B:92:ALA:HB3	1:B:95:GLN:HE21	0.52	1.65	5	14

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:142:VAL:O	1:A:145:TYR:O	0.52	2.27	9	4
1:B:5:ASN:ND2	1:B:6:LEU:N	0.52	2.58	90	6
1:B:44:SER:OG	1:B:131:LYS:NZ	0.52	2.41	82	7
1:A:177:ALA:H	1:A:182:LYS:NZ	0.52	2.01	99	2
1:B:7:GLN:HB3	1:B:9:GLN:HE22	0.52	1.65	79	3
1:B:213:GLU:OE1	1:B:213:GLU:N	0.52	2.42	68	2
1:B:143:ARG:O	1:B:143:ARG:CZ	0.52	2.56	2	1
1:A:67:GLN:NE2	1:A:68:MET:SD	0.52	2.83	84	3
1:B:72:THR:O	1:B:76:GLU:OE1	0.52	2.27	11	12
1:A:12:HIS:CE1	1:A:50:GLN:OE1	0.52	2.63	25	8
1:A:7:GLN:NE2	1:A:7:GLN:H	0.52	2.03	52	1
1:B:113:GLU:OE2	1:B:117:TRP:CH2	0.52	2.62	68	1
1:A:80:TRP:CH2	1:A:84:HIS:NE2	0.52	2.78	77	26
1:A:139:ASN:OD1	1:A:139:ASN:C	0.52	2.48	11	3
1:B:6:LEU:O	1:B:6:LEU:HD13	0.52	2.04	66	1
1:B:150:ILE:HD11	1:B:168:PHE:CZ	0.52	2.40	34	2
1:A:142:VAL:O	1:A:145:TYR:CD1	0.52	2.63	44	1
1:A:140:LYS:NZ	1:A:143:ARG:HH21	0.52	2.02	94	2
1:B:108:THR:CG2	1:B:108:THR:O	0.52	2.57	73	20
1:A:25:LYS:NZ	1:A:29:GLU:OE2	0.52	2.42	87	3
1:A:98:GLU:H	1:A:98:GLU:CD	0.52	2.08	77	8
1:A:79:GLU:OE1	1:A:82:ARG:NH1	0.52	2.43	49	3
1:A:97:ARG:HH21	1:A:100:ARG:HH22	0.52	1.47	61	2
1:B:139:ASN:HB3	1:B:167:ARG:NH1	0.52	2.19	51	1
1:B:155:GLN:HE21	1:B:195:ASN:H	0.52	1.46	35	6
1:B:98:GLU:OE1	1:B:98:GLU:N	0.52	2.42	79	5
1:A:124:ILE:HD12	1:A:124:ILE:N	0.52	2.20	14	11
1:B:12:HIS:NE2	1:B:48:THR:CG2	0.52	2.73	22	4
1:A:81:ASP:OD1	1:A:81:ASP:C	0.52	2.48	58	4
1:A:155:GLN:HE21	1:A:195:ASN:H	0.52	1.47	93	6
1:A:113:GLU:OE1	1:A:117:TRP:CE3	0.52	2.63	14	3
1:A:20:LEU:HD11	1:A:58:THR:CG2	0.52	2.35	74	4
1:B:20:LEU:HD11	1:B:58:THR:CG2	0.52	2.35	52	4
1:B:150:ILE:O	1:B:153:ILE:HG22	0.51	2.06	28	8
1:B:12:HIS:CD2	1:B:111:LEU:HD21	0.51	2.39	52	10
1:A:150:ILE:O	1:A:153:ILE:HG22	0.51	2.05	87	3
1:A:5:ASN:ND2	1:A:9:GLN:CD	0.51	2.64	39	7
1:A:150:ILE:HD11	1:A:168:PHE:CE1	0.51	2.41	86	2
1:B:7:GLN:CB	1:B:9:GLN:HE22	0.51	2.18	34	8
1:B:91:ILE:HD11	1:B:97:ARG:NH1	0.51	2.20	79	2
1:A:205:LEU:CD1	1:A:214:MET:SD	0.51	2.98	2	7

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:113:GLU:OE1	1:A:113:GLU:N	0.51	2.43	33	2
1:A:99:PRO:O	1:A:100:ARG:NH2	0.51	2.43	64	1
1:A:71:GLU:N	1:A:71:GLU:OE1	0.51	2.42	33	2
1:A:139:ASN:C	1:A:139:ASN:OD1	0.51	2.49	95	3
1:A:10:MET:O	1:A:10:MET:SD	0.51	2.68	49	2
1:B:113:GLU:OE1	1:B:117:TRP:CE3	0.51	2.63	64	2
1:A:139:ASN:ND2	1:A:143:ARG:HH12	0.51	2.02	28	1
1:A:184:TRP:CH2	1:B:184:TRP:CZ3	0.51	2.98	100	6
1:A:167:ARG:NH2	1:A:170:LYS:CG	0.51	2.73	83	3
1:B:143:ARG:CZ	1:B:144:MET:SD	0.51	2.99	4	6
1:A:118:MET:SD	1:A:118:MET:O	0.51	2.69	67	1
1:A:12:HIS:CE1	1:A:50:GLN:HE22	0.51	2.23	7	6
1:B:15:ILE:HD12	1:B:15:ILE:O	0.51	2.05	48	3
1:B:15:ILE:O	1:B:15:ILE:HD12	0.51	2.06	23	1
1:B:167:ARG:NE	1:B:167:ARG:HA	0.51	2.21	8	2
1:B:132:ARG:NH2	1:B:133:TRP:NE1	0.51	2.58	70	1
1:B:75:GLU:O	1:B:79:GLU:OE1	0.51	2.29	6	17
1:B:132:ARG:O	1:B:136:LEU:HD13	0.51	2.06	8	10
1:B:10:MET:SD	1:B:10:MET:N	0.51	2.83	23	8
1:B:143:ARG:CG	1:B:167:ARG:HH12	0.51	2.18	51	1
1:B:139:ASN:ND2	1:B:143:ARG:HH11	0.51	2.03	46	1
1:A:150:ILE:CD1	1:A:150:ILE:H	0.51	2.09	1	1
1:A:181:VAL:HG22	1:B:180:GLU:O	0.51	2.05	67	84
1:A:12:HIS:HB3	1:A:115:ILE:HD11	0.51	1.83	93	29
1:B:75:GLU:OE2	1:B:79:GLU:OE2	0.51	2.29	45	17
1:B:86:VAL:N	1:B:100:ARG:NH1	0.51	2.59	72	9
1:A:205:LEU:HD12	1:A:214:MET:SD	0.51	2.45	2	7
1:B:10:MET:O	1:B:10:MET:SD	0.51	2.68	54	1
1:B:64:ALA:O	1:B:68:MET:SD	0.51	2.69	53	5
1:A:172:LEU:HD13	1:A:172:LEU:O	0.51	2.06	68	1
1:B:139:ASN:HD22	1:B:170:LYS:NZ	0.51	2.04	38	1
1:B:150:ILE:HD11	1:B:168:PHE:CE1	0.51	2.41	50	3
1:B:150:ILE:CD1	1:B:151:LEU:H	0.51	2.19	67	1
1:B:97:ARG:CZ	1:B:98:GLU:OE1	0.51	2.59	32	2
1:B:5:ASN:ND2	1:B:7:GLN:OE1	0.51	2.44	61	2
1:A:100:ARG:NH2	1:A:108:THR:CG2	0.51	2.74	84	1
1:A:150:ILE:N	1:A:153:ILE:HG12	0.51	2.21	61	1
1:A:178:SER:OG	1:B:180:GLU:HB3	0.51	2.05	69	1
1:A:32:PHE:CD1	1:A:145:TYR:CD2	0.51	2.99	10	1
1:B:139:ASN:OD1	1:B:143:ARG:NE	0.51	2.43	52	1
1:A:96:MET:CE	1:A:120:HIS:NE2	0.51	2.74	89	8

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:44:SER:O	1:B:131:LYS:NZ	0.51	2.40	27	13
1:B:167:ARG:NH2	1:B:171:THR:N	0.51	2.59	39	1
1:B:177:ALA:H	1:B:182:LYS:NZ	0.51	2.03	11	6
1:A:12:HIS:CG	1:A:111:LEU:HD11	0.51	2.40	82	10
1:B:192:GLN:O	1:B:192:GLN:NE2	0.51	2.44	22	6
1:B:150:ILE:HG22	1:B:151:LEU:N	0.51	2.17	64	1
1:B:150:ILE:CD1	1:B:150:ILE:N	0.51	2.73	39	2
1:A:161:PHE:CE1	1:A:198:CYS:SG	0.51	3.04	69	10
1:B:113:GLU:OE1	1:B:113:GLU:N	0.51	2.44	97	1
1:A:81:ASP:OD2	1:A:100:ARG:NH2	0.50	2.44	51	3
1:B:5:ASN:ND2	1:B:7:GLN:CD	0.50	2.65	15	3
1:B:67:GLN:O	1:B:71:GLU:OE1	0.50	2.29	54	2
1:A:100:ARG:NE	1:A:101:GLY:H	0.50	2.03	57	2
1:A:67:GLN:OE1	1:A:68:MET:CE	0.50	2.59	34	3
1:A:150:ILE:HD11	1:A:172:LEU:CA	0.50	2.34	78	1
1:A:32:PHE:CD1	1:A:145:TYR:CE2	0.50	2.99	64	1
1:A:139:ASN:ND2	1:A:143:ARG:CZ	0.50	2.74	97	1
1:B:198:CYS:SG	1:B:202:LEU:HD11	0.50	2.47	68	77
1:A:180:GLU:OE1	1:A:183:ASN:ND2	0.50	2.44	72	8
1:A:67:GLN:O	1:A:71:GLU:OE1	0.50	2.29	51	6
1:A:4:GLN:OE1	1:A:10:MET:SD	0.50	2.70	92	3
1:A:25:LYS:O	1:A:29:GLU:OE1	0.50	2.30	82	10
1:A:175:GLU:CA	1:A:175:GLU:OE1	0.50	2.59	51	4
1:A:21:ASN:HD21	1:A:25:LYS:HZ1	0.50	1.48	62	1
1:A:203:LYS:NZ	1:B:34:PRO:O	0.50	2.39	35	1
1:A:10:MET:SD	1:A:10:MET:O	0.50	2.69	59	2
1:A:177:ALA:HB3	1:A:182:LYS:HZ1	0.50	1.66	99	2
1:A:108:THR:O	1:A:108:THR:CG2	0.50	2.59	57	8
1:A:7:GLN:NE2	1:A:9:GLN:CD	0.50	2.65	22	4
1:A:41:SER:C	1:B:204:ALA:HA	0.50	2.27	70	1
1:B:95:GLN:OE1	1:B:96:MET:N	0.50	2.44	68	2
1:B:136:LEU:HA	1:B:167:ARG:NH1	0.50	2.21	8	1
1:A:53:ASN:OD1	1:A:53:ASN:C	0.50	2.50	26	17
1:A:171:THR:HG22	1:A:175:GLU:OE2	0.50	2.07	100	4
1:B:35:GLU:OE2	1:B:39:MET:SD	0.50	2.69	54	2
1:A:9:GLN:CD	1:A:9:GLN:N	0.50	2.65	79	2
1:B:81:ASP:OD1	1:B:82:ARG:CZ	0.50	2.60	100	1
1:A:98:GLU:OE2	1:A:100:ARG:NH2	0.50	2.44	91	1
1:A:2:ILE:N	1:A:2:ILE:CD1	0.50	2.73	42	13
1:B:34:PRO:CB	1:B:152:ASP:OD1	0.50	2.59	28	1
1:B:195:ASN:HD21	1:B:197:ASP:CG	0.50	2.09	74	4

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:150:ILE:CG2	1:B:151:LEU:N	0.50	2.75	94	9
1:A:173:ARG:O	1:A:173:ARG:NE	0.50	2.43	32	2
1:B:7:GLN:O	1:B:7:GLN:NE2	0.50	2.45	58	2
1:B:53:ASN:OD1	1:B:53:ASN:C	0.50	2.50	50	6
1:B:7:GLN:O	1:B:7:GLN:CD	0.50	2.50	58	1
1:A:4:GLN:OE1	1:A:10:MET:CA	0.50	2.60	96	4
1:B:15:ILE:CD1	1:B:55:MET:SD	0.50	3.00	67	1
1:B:87:HIS:CG	1:B:87:HIS:O	0.50	2.64	50	4
1:A:41:SER:O	1:B:204:ALA:HA	0.50	2.07	70	1
1:B:179:GLN:NE2	1:B:179:GLN:H	0.50	2.03	46	2
1:A:76:GLU:OE2	1:A:132:ARG:NH2	0.50	2.45	55	1
1:A:108:THR:CG2	1:A:108:THR:O	0.50	2.60	54	9
1:A:72:THR:O	1:A:76:GLU:OE1	0.50	2.30	62	11
1:A:75:GLU:OE1	1:A:76:GLU:OE2	0.50	2.29	22	8
1:B:9:GLN:H	1:B:9:GLN:NE2	0.50	2.04	89	1
1:A:162:ARG:HH21	1:A:215:MET:CE	0.50	2.19	43	4
1:A:71:GLU:O	1:A:74:ASN:OD1	0.50	2.30	26	14
1:A:11:VAL:CG2	1:A:12:HIS:N	0.50	2.75	6	29
1:B:2:ILE:HD12	1:B:118:MET:SD	0.50	2.46	32	4
1:A:69:LEU:HD21	1:A:138:LEU:HD12	0.50	1.83	78	10
1:A:120:HIS:ND1	1:A:121:ASN:N	0.50	2.60	76	21
1:A:75:GLU:O	1:A:79:GLU:OE1	0.50	2.30	98	8
1:B:150:ILE:HD13	1:B:185:MET:SD	0.50	2.47	73	2
1:B:100:ARG:HH21	1:B:102:SER:N	0.50	2.05	77	2
1:B:143:ARG:HH12	1:B:154:ARG:HE	0.50	1.49	66	1
1:B:91:ILE:CD1	1:B:91:ILE:N	0.50	2.72	74	2
1:B:120:HIS:CD2	1:B:122:PRO:O	0.50	2.65	85	2
1:B:11:VAL:CG1	1:B:12:HIS:N	0.50	2.75	84	27
1:B:150:ILE:HG21	1:B:185:MET:HE1	0.50	1.83	76	1
1:A:87:HIS:O	1:A:97:ARG:CZ	0.50	2.60	13	6
1:A:144:MET:HB3	1:A:145:TYR:CE2	0.50	2.41	78	2
1:B:139:ASN:OD1	1:B:143:ARG:CZ	0.50	2.59	88	3
1:A:2:ILE:HG22	1:A:115:ILE:CD1	0.50	2.37	52	2
1:A:179:GLN:OE1	1:A:179:GLN:N	0.50	2.43	96	1
1:A:53:ASN:C	1:A:53:ASN:OD1	0.49	2.51	47	10
1:B:63:GLN:OE1	1:B:63:GLN:O	0.49	2.30	76	2
1:A:175:GLU:OE1	1:A:175:GLU:CA	0.49	2.60	55	4
1:A:175:GLU:CD	1:A:176:GLN:N	0.49	2.65	42	15
1:B:7:GLN:CD	1:B:7:GLN:O	0.49	2.50	23	3
1:B:197:ASP:N	1:B:197:ASP:OD1	0.49	2.44	63	2
1:A:7:GLN:N	1:A:7:GLN:CD	0.49	2.66	70	3

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:180:GLU:HB2	1:B:180:GLU:CB	0.49	2.36	26	100
1:A:198:CYS:SG	1:A:202:LEU:CD1	0.49	3.00	42	92
1:B:34:PRO:HB2	1:B:152:ASP:OD1	0.49	2.06	28	1
1:B:196:PRO:O	1:B:200:THR:HG23	0.49	2.06	66	40
1:B:9:GLN:CD	1:B:9:GLN:H	0.49	2.11	89	2
1:B:7:GLN:N	1:B:7:GLN:CD	0.49	2.66	100	2
1:B:98:GLU:H	1:B:98:GLU:CD	0.49	2.10	14	2
1:B:81:ASP:OD1	1:B:81:ASP:O	0.49	2.31	17	18
1:A:118:MET:O	1:A:118:MET:SD	0.49	2.70	98	3
1:B:108:THR:O	1:B:108:THR:CG2	0.49	2.61	45	12
1:B:166:ASP:OD1	1:B:166:ASP:C	0.49	2.50	98	6
1:A:167:ARG:NE	1:A:167:ARG:HA	0.49	2.22	51	1
1:A:4:GLN:OE1	1:A:9:GLN:C	0.49	2.51	6	12
1:A:11:VAL:CG1	1:A:12:HIS:N	0.49	2.76	93	28
1:B:53:ASN:C	1:B:53:ASN:OD1	0.49	2.51	84	9
1:A:95:GLN:CD	1:A:96:MET:N	0.49	2.66	37	7
1:B:4:GLN:OE1	1:B:8:GLY:O	0.49	2.31	71	7
1:B:97:ARG:HE	1:B:100:ARG:HH22	0.49	1.50	62	1
1:B:9:GLN:OE1	1:B:9:GLN:N	0.49	2.45	63	1
1:A:110:THR:OG1	1:A:113:GLU:OE1	0.49	2.29	78	3
1:B:54:THR:O	1:B:57:ASN:OD1	0.49	2.30	97	2
1:B:173:ARG:O	1:B:173:ARG:CZ	0.49	2.60	98	1
1:A:140:LYS:HZ3	1:A:143:ARG:HH21	0.49	1.48	94	1
1:A:6:LEU:HD13	1:A:6:LEU:O	0.49	2.08	81	4
1:B:85:PRO:O	1:B:87:HIS:NE2	0.49	2.46	37	2
1:A:18:ARG:NE	1:A:18:ARG:O	0.49	2.46	93	1
1:A:155:GLN:OE1	1:A:195:ASN:ND2	0.49	2.45	14	3
1:B:145:TYR:CD2	1:B:145:TYR:O	0.49	2.66	43	2
1:B:98:GLU:CD	1:B:100:ARG:NH2	0.49	2.66	15	1
1:A:167:ARG:HH21	1:A:171:THR:CA	0.49	2.20	31	1
1:A:171:THR:O	1:A:175:GLU:OE2	0.49	2.30	51	16
1:B:97:ARG:HH12	1:B:100:ARG:CZ	0.49	2.21	97	1
1:A:178:SER:OG	1:B:180:GLU:CG	0.49	2.60	12	56
1:B:143:ARG:C	1:B:143:ARG:HE	0.49	2.10	87	1
1:B:152:ASP:O	1:B:152:ASP:CG	0.49	2.51	4	9
1:B:4:GLN:O	1:B:4:GLN:CD	0.49	2.51	35	4
1:A:18:ARG:NH1	1:A:21:ASN:HD22	0.49	2.05	93	2
1:B:143:ARG:HA	1:B:143:ARG:NE	0.49	2.22	27	1
1:A:98:GLU:OE1	1:A:99:PRO:O	0.49	2.30	49	14
1:B:32:PHE:CE1	1:B:145:TYR:CG	0.49	3.01	18	1
1:B:81:ASP:O	1:B:81:ASP:OD1	0.49	2.31	82	28

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:69:LEU:HD21	1:A:138:LEU:CD1	0.49	2.38	33	10
1:B:95:GLN:CD	1:B:96:MET:N	0.49	2.66	65	7
1:A:175:GLU:OE1	1:A:177:ALA:CB	0.49	2.61	67	1
1:A:145:TYR:O	1:A:145:TYR:CD1	0.49	2.66	97	2
1:B:74:ASN:C	1:B:74:ASN:OD1	0.49	2.52	4	5
1:B:171:THR:HG22	1:B:175:GLU:OE2	0.49	2.06	51	4
1:A:171:THR:O	1:A:175:GLU:CD	0.49	2.51	60	8
1:B:167:ARG:NH1	1:B:171:THR:HG22	0.49	2.23	17	4
1:B:197:ASP:OD1	1:B:197:ASP:N	0.49	2.45	13	1
1:A:2:ILE:N	1:A:2:ILE:HD13	0.49	2.23	49	10
1:A:97:ARG:HE	1:A:100:ARG:CZ	0.49	2.21	12	3
1:B:87:HIS:O	1:B:97:ARG:CZ	0.49	2.61	12	2
1:A:219:GLN:OE1	1:A:219:GLN:O	0.48	2.30	81	6
1:A:145:TYR:C	1:A:145:TYR:CD1	0.48	2.83	18	1
1:B:96:MET:SD	1:B:120:HIS:CD2	0.48	3.06	14	11
1:B:95:GLN:C	1:B:96:MET:SD	0.48	2.91	78	18
1:B:215:MET:C	1:B:215:MET:SD	0.48	2.92	52	5
1:A:32:PHE:CE2	1:A:145:TYR:CE2	0.48	3.01	86	1
1:B:185:MET:N	1:B:185:MET:SD	0.48	2.86	51	5
1:A:80:TRP:CZ3	1:A:84:HIS:CD2	0.48	3.01	70	6
1:A:15:ILE:CD1	1:A:55:MET:SD	0.48	3.01	21	8
1:A:2:ILE:HD13	1:A:2:ILE:N	0.48	2.23	1	7
1:A:37:ILE:HD13	1:A:139:ASN:ND2	0.48	2.23	33	4
1:B:139:ASN:HD22	1:B:170:LYS:HE3	0.48	1.66	43	1
1:B:18:ARG:HH21	1:B:22:ALA:N	0.48	2.05	68	1
1:A:150:ILE:HG13	1:A:151:LEU:H	0.48	1.68	65	2
1:A:96:MET:SD	1:A:120:HIS:ND1	0.48	2.86	52	4
1:A:120:HIS:CD2	1:A:121:ASN:H	0.48	2.25	91	3
1:B:81:ASP:CG	1:B:100:ARG:NH2	0.48	2.66	53	1
1:A:163:ASP:OD1	1:A:167:ARG:CZ	0.48	2.60	52	1
1:B:113:GLU:CD	1:B:117:TRP:CH2	0.48	2.86	68	1
1:A:2:ILE:CD1	1:A:2:ILE:N	0.48	2.73	17	12
1:B:25:LYS:NZ	1:B:29:GLU:OE1	0.48	2.46	18	3
1:A:75:GLU:O	1:A:79:GLU:CD	0.48	2.52	39	6
1:A:153:ILE:N	1:A:153:ILE:CD1	0.48	2.76	44	6
1:A:7:GLN:H	1:A:7:GLN:NE2	0.48	2.07	97	1
1:A:150:ILE:CG1	1:A:151:LEU:N	0.48	2.73	94	1
1:B:75:GLU:O	1:B:79:GLU:CD	0.48	2.51	85	10
1:A:7:GLN:CD	1:A:7:GLN:N	0.48	2.66	66	3
1:A:5:ASN:ND2	1:A:7:GLN:CD	0.48	2.67	61	4
1:B:9:GLN:CD	1:B:9:GLN:N	0.48	2.67	89	4

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:81:ASP:OD1	1:B:81:ASP:C	0.48	2.51	49	4
1:A:34:PRO:O	1:B:203:LYS:NZ	0.48	2.47	96	1
1:B:2:ILE:CD1	1:B:118:MET:SD	0.48	3.02	41	16
1:A:154:ARG:NH1	1:A:155:GLN:O	0.48	2.46	5	8
1:A:133:TRP:N	1:A:133:TRP:CD1	0.48	2.81	93	13
1:B:50:GLN:NE2	1:B:54:THR:OG1	0.48	2.47	39	1
1:A:103:ASP:CB	1:A:109:SER:OG	0.48	2.62	86	16
1:A:7:GLN:H	1:A:7:GLN:CD	0.48	2.12	70	6
1:A:113:GLU:OE2	1:A:117:TRP:CH2	0.48	2.66	92	5
1:A:7:GLN:O	1:A:7:GLN:CD	0.48	2.52	58	4
1:A:192:GLN:O	1:A:192:GLN:NE2	0.48	2.47	62	5
1:A:7:GLN:CD	1:A:9:GLN:OE1	0.48	2.52	72	6
1:A:143:ARG:NH1	1:A:153:ILE:HD11	0.48	2.23	51	1
1:B:5:ASN:CG	1:B:7:GLN:NE2	0.48	2.67	100	1
1:B:139:ASN:HD21	1:B:143:ARG:HH11	0.48	1.51	46	2
1:A:150:ILE:H	1:A:171:THR:HG21	0.48	1.69	6	1
1:B:63:GLN:N	1:B:63:GLN:CD	0.48	2.64	85	1
1:B:103:ASP:CB	1:B:109:SER:OG	0.48	2.62	55	7
1:B:2:ILE:CD1	1:B:2:ILE:N	0.48	2.74	69	1
1:B:81:ASP:C	1:B:81:ASP:OD1	0.48	2.52	59	1
1:A:180:GLU:O	1:B:181:VAL:HG22	0.48	2.08	50	55
1:A:98:GLU:CD	1:A:98:GLU:H	0.48	2.12	25	5
1:A:113:GLU:CD	1:A:117:TRP:CH2	0.48	2.87	12	3
1:B:50:GLN:H	1:B:114:GLN:HE22	0.48	1.51	62	4
1:A:113:GLU:OE1	1:A:113:GLU:O	0.48	2.31	64	3
1:A:91:ILE:HD12	1:A:97:ARG:NH2	0.48	2.24	87	1
1:A:50:GLN:NE2	1:A:54:THR:OG1	0.48	2.47	12	4
1:A:4:GLN:OE1	1:A:5:ASN:O	0.48	2.32	23	6
1:A:163:ASP:CG	1:A:167:ARG:NH1	0.48	2.67	56	4
1:B:3:VAL:HG21	1:B:13:GLN:CD	0.48	2.29	13	3
1:B:99:PRO:O	1:B:100:ARG:NH2	0.48	2.46	33	1
1:B:145:TYR:CG	1:B:145:TYR:O	0.48	2.67	69	2
1:A:213:GLU:N	1:A:213:GLU:OE1	0.48	2.47	39	5
1:B:194:ALA:HB1	1:B:198:CYS:SG	0.48	2.49	22	4
1:A:32:PHE:CZ	1:A:145:TYR:CE2	0.48	3.02	16	1
1:B:11:VAL:CG2	1:B:12:HIS:N	0.48	2.77	32	7
1:B:95:GLN:CD	1:B:96:MET:H	0.48	2.12	15	6
1:A:75:GLU:OE1	1:A:76:GLU:CD	0.48	2.52	66	1
1:B:164:TYR:OH	1:B:193:ASN:CG	0.48	2.53	34	3
1:B:79:GLU:N	1:B:79:GLU:OE1	0.48	2.47	63	2
1:B:32:PHE:CD2	1:B:145:TYR:CE2	0.48	3.02	23	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:164:TYR:OH	1:A:193:ASN:CB	0.48	2.62	31	1
1:B:155:GLN:HE22	1:B:195:ASN:CG	0.47	2.13	24	4
1:A:39:MET:N	1:A:39:MET:SD	0.47	2.87	46	15
1:B:185:MET:SD	1:B:185:MET:N	0.47	2.87	55	5
1:A:95:GLN:C	1:A:96:MET:SD	0.47	2.92	12	4
1:B:12:HIS:CD2	1:B:115:ILE:HD11	0.47	2.44	47	4
1:A:110:THR:HG22	1:A:111:LEU:N	0.47	2.24	51	24
1:B:7:GLN:NE2	1:B:9:GLN:NE2	0.47	2.62	74	3
1:B:57:ASN:OD1	1:B:57:ASN:O	0.47	2.32	27	11
1:A:97:ARG:HH11	1:A:100:ARG:NH1	0.47	2.07	46	1
1:B:72:THR:O	1:B:76:GLU:OE2	0.47	2.32	6	14
1:A:39:MET:SD	1:A:39:MET:N	0.47	2.87	32	15
1:B:99:PRO:C	1:B:100:ARG:HE	0.47	2.11	68	4
1:B:20:LEU:CD1	1:B:58:THR:HG21	0.47	2.40	52	4
1:A:179:GLN:OE1	1:A:182:LYS:NZ	0.47	2.44	23	4
1:A:18:ARG:N	1:A:18:ARG:CD	0.47	2.76	53	1
1:A:9:GLN:H	1:A:9:GLN:CD	0.47	2.12	89	1
1:A:143:ARG:CD	1:A:171:THR:HA	0.47	2.39	43	1
1:A:72:THR:O	1:A:76:GLU:OE2	0.47	2.32	84	7
1:A:81:ASP:O	1:A:81:ASP:OD1	0.47	2.33	34	8
1:B:175:GLU:CD	1:B:176:GLN:N	0.47	2.68	68	5
1:B:91:ILE:HG21	1:B:97:ARG:NH2	0.47	2.24	54	1
1:B:74:ASN:OD1	1:B:74:ASN:C	0.47	2.53	9	2
1:B:9:GLN:N	1:B:9:GLN:OE1	0.47	2.48	13	1
1:A:141:ILE:HG23	1:A:145:TYR:CE2	0.47	2.44	64	1
1:A:120:HIS:ND1	1:A:122:PRO:O	0.47	2.48	91	4
1:A:12:HIS:CD2	1:A:12:HIS:H	0.47	2.26	90	1
1:B:15:ILE:H	1:B:15:ILE:CD1	0.47	2.22	6	12
1:A:139:ASN:HD22	1:A:167:ARG:HH21	0.47	1.52	28	1
1:B:150:ILE:HD12	1:B:150:ILE:H	0.47	1.68	91	3
1:B:92:ALA:HB3	1:B:95:GLN:CD	0.47	2.30	75	6
1:A:179:GLN:CD	1:A:182:LYS:NZ	0.47	2.68	23	4
1:A:145:TYR:CD2	1:A:145:TYR:O	0.47	2.68	31	2
1:B:179:GLN:OE1	1:B:182:LYS:NZ	0.47	2.44	69	1
1:B:78:ALA:CB	1:B:82:ARG:HH12	0.47	2.22	25	2
1:A:162:ARG:CZ	1:A:219:GLN:HE22	0.47	2.22	23	1
1:B:96:MET:SD	1:B:97:ARG:NH1	0.47	2.88	99	1
1:A:98:GLU:CD	1:A:100:ARG:NH2	0.47	2.66	85	1
1:B:154:ARG:NE	1:B:154:ARG:O	0.47	2.47	94	1
1:B:63:GLN:CD	1:B:64:ALA:H	0.47	2.12	1	11
1:B:4:GLN:OE1	1:B:5:ASN:O	0.47	2.32	98	6

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:109:SER:OG	1:B:114:GLN:NE2	0.47	2.48	36	3
1:A:44:SER:CB	1:A:131:LYS:HZ2	0.47	2.22	90	5
1:B:159:GLU:OE2	1:B:163:ASP:OD2	0.47	2.33	65	8
1:A:210:THR:OG1	1:A:213:GLU:OE1	0.47	2.33	92	5
1:B:16:SER:OG	1:B:18:ARG:NH1	0.47	2.48	96	1
1:B:17:PRO:O	1:B:21:ASN:OD1	0.47	2.32	84	18
1:A:20:LEU:CD1	1:A:58:THR:HG21	0.47	2.40	74	4
1:A:66:MET:C	1:A:66:MET:SD	0.47	2.93	39	7
1:A:153:ILE:O	1:A:193:ASN:OD1	0.47	2.32	2	29
1:A:18:ARG:NE	1:A:18:ARG:H	0.47	2.08	53	1
1:A:7:GLN:CD	1:A:7:GLN:O	0.47	2.53	23	4
1:A:6:LEU:O	1:A:6:LEU:HD13	0.47	2.10	85	5
1:B:66:MET:C	1:B:66:MET:SD	0.47	2.93	10	2
1:B:144:MET:O	1:B:145:TYR:CB	0.47	2.63	61	1
1:B:143:ARG:HH12	1:B:152:ASP:CG	0.47	2.13	100	1
1:A:183:ASN:O	1:A:187:GLU:OE1	0.47	2.33	94	3
1:A:54:THR:O	1:A:57:ASN:OD1	0.47	2.33	52	2
1:A:5:ASN:N	1:A:5:ASN:OD1	0.47	2.47	24	1
1:B:153:ILE:N	1:B:153:ILE:HD12	0.47	2.24	99	1
1:A:121:ASN:O	1:A:121:ASN:CG	0.47	2.53	31	3
1:B:80:TRP:CE2	1:B:84:HIS:CE1	0.47	3.03	52	1
1:A:21:ASN:O	1:A:24:VAL:HG12	0.47	2.10	85	24
1:B:12:HIS:CG	1:B:111:LEU:CD2	0.47	2.98	45	24
1:B:181:VAL:HG12	1:B:185:MET:CE	0.47	2.39	62	1
1:B:139:ASN:OD1	1:B:143:ARG:NH2	0.47	2.48	68	1
1:B:97:ARG:HE	1:B:100:ARG:NH1	0.47	2.08	90	1
1:A:139:ASN:HD22	1:A:167:ARG:NH2	0.47	2.08	28	1
1:B:44:SER:CB	1:B:131:LYS:HZ2	0.47	2.23	32	4
1:B:195:ASN:OD1	1:B:197:ASP:N	0.47	2.48	77	26
1:B:143:ARG:HH21	1:B:154:ARG:CZ	0.47	2.23	75	1
1:A:86:VAL:HG12	1:A:100:ARG:NH1	0.47	2.24	61	3
1:B:150:ILE:HD11	1:B:168:PHE:CD1	0.47	2.44	24	1
1:B:210:THR:OG1	1:B:213:GLU:OE1	0.47	2.33	33	7
1:B:91:ILE:HD11	1:B:97:ARG:HH11	0.47	1.69	92	1
1:A:219:GLN:O	1:A:219:GLN:CG	0.47	2.63	19	3
1:A:80:TRP:CE2	1:A:84:HIS:CD2	0.47	3.03	50	6
1:B:179:GLN:H	1:B:179:GLN:NE2	0.47	2.07	60	3
1:B:97:ARG:NH1	1:B:98:GLU:OE2	0.47	2.47	53	1
1:A:133:TRP:CD1	1:A:133:TRP:N	0.47	2.82	63	5
1:A:18:ARG:O	1:A:18:ARG:NE	0.47	2.46	13	2
1:A:173:ARG:NH2	1:A:182:LYS:NZ	0.47	2.62	69	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:63:GLN:N	1:B:63:GLN:OE1	0.47	2.48	47	1
1:B:13:GLN:OE1	1:B:14:ALA:N	0.47	2.48	95	1
1:A:12:HIS:CG	1:A:111:LEU:CD2	0.46	2.98	8	20
1:B:184:TRP:NE1	1:B:188:THR:OG1	0.46	2.48	16	14
1:B:63:GLN:NE2	1:B:64:ALA:CA	0.46	2.78	28	1
1:B:110:THR:HG22	1:B:111:LEU:N	0.46	2.25	70	14
1:B:21:ASN:O	1:B:24:VAL:HG12	0.46	2.10	15	16
1:A:97:ARG:HH11	1:A:100:ARG:CZ	0.46	2.24	50	3
1:B:198:CYS:SG	1:B:221:VAL:HG11	0.46	2.50	34	3
1:A:192:GLN:C	1:A:192:GLN:NE2	0.46	2.69	89	1
1:A:140:LYS:HZ2	1:A:143:ARG:HH22	0.46	1.52	14	1
1:B:97:ARG:HH21	1:B:100:ARG:HH11	0.46	1.51	90	1
1:B:7:GLN:NE2	1:B:9:GLN:OE1	0.46	2.48	49	3
1:A:219:GLN:CG	1:A:219:GLN:O	0.46	2.64	29	5
1:B:184:TRP:CE3	1:B:185:MET:SD	0.46	3.08	37	7
1:A:184:TRP:CZ3	1:B:184:TRP:CH2	0.46	3.03	7	7
1:A:176:GLN:C	1:A:176:GLN:NE2	0.46	2.68	20	1
1:B:154:ARG:C	1:B:154:ARG:HE	0.46	2.14	94	1
1:B:167:ARG:O	1:B:167:ARG:NE	0.46	2.46	39	4
1:A:215:MET:SD	1:A:215:MET:C	0.46	2.94	86	3
1:A:4:GLN:N	1:A:4:GLN:CD	0.46	2.69	12	1
1:B:91:ILE:HD12	1:B:97:ARG:NH2	0.46	2.26	78	1
1:A:17:PRO:O	1:A:21:ASN:OD1	0.46	2.33	49	5
1:A:80:TRP:CD2	1:A:84:HIS:CD2	0.46	3.04	77	8
1:B:98:GLU:CD	1:B:100:ARG:HH21	0.46	2.14	11	6
1:B:5:ASN:OD1	1:B:7:GLN:OE1	0.46	2.33	95	4
1:A:57:ASN:OD1	1:A:57:ASN:O	0.46	2.33	89	2
1:B:78:ALA:HB1	1:B:82:ARG:HH12	0.46	1.70	46	2
1:B:153:ILE:O	1:B:193:ASN:OD1	0.46	2.33	36	20
1:B:121:ASN:O	1:B:121:ASN:CG	0.46	2.54	85	8
1:A:4:GLN:CD	1:A:4:GLN:O	0.46	2.54	82	3
1:A:100:ARG:CD	1:A:101:GLY:N	0.46	2.75	57	2
1:B:210:THR:OG1	1:B:213:GLU:CD	0.46	2.54	88	6
1:A:69:LEU:HD21	1:A:138:LEU:HD22	0.46	1.88	64	3
1:A:203:LYS:NZ	1:B:38:PRO:CG	0.46	2.79	35	1
1:B:4:GLN:OE1	1:B:4:GLN:O	0.46	2.34	36	6
1:B:76:GLU:CD	1:B:133:TRP:NE1	0.46	2.69	35	6
1:B:63:GLN:O	1:B:63:GLN:OE1	0.46	2.33	31	2
1:B:121:ASN:O	1:B:121:ASN:OD1	0.46	2.34	34	4
1:B:150:ILE:CG1	1:B:151:LEU:N	0.46	2.78	22	1
1:A:113:GLU:OE2	1:A:117:TRP:CZ2	0.46	2.68	14	2

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:4:GLN:OE1	1:A:8:GLY:O	0.46	2.34	74	4
1:B:118:MET:C	1:B:118:MET:SD	0.46	2.95	40	7
1:A:5:ASN:ND2	1:A:7:GLN:OE1	0.46	2.48	44	5
1:A:76:GLU:N	1:A:76:GLU:CD	0.46	2.69	84	3
1:A:87:HIS:O	1:A:87:HIS:CG	0.46	2.68	29	1
1:A:18:ARG:NE	1:A:18:ARG:N	0.46	2.64	53	1
1:B:181:VAL:HG12	1:B:185:MET:HE3	0.46	1.87	62	1
1:A:162:ARG:NH2	1:A:215:MET:CE	0.46	2.79	71	2
1:A:139:ASN:ND2	1:A:167:ARG:HG3	0.46	2.25	43	2
1:A:76:GLU:OE2	1:A:80:TRP:CE3	0.46	2.69	52	1
1:B:15:ILE:HD11	1:B:51:ASP:HB3	0.46	1.88	70	26
1:A:20:LEU:HD11	1:A:58:THR:OG1	0.46	2.11	74	11
1:B:39:MET:N	1:B:39:MET:SD	0.46	2.89	96	9
1:B:197:ASP:OD1	1:B:198:CYS:N	0.46	2.49	24	4
1:A:152:ASP:O	1:A:152:ASP:OD1	0.46	2.34	87	2
1:B:199:LYS:NZ	1:B:199:LYS:CB	0.46	2.79	76	4
1:A:5:ASN:OD1	1:A:7:GLN:OE1	0.46	2.33	15	3
1:A:81:ASP:OD1	1:A:81:ASP:O	0.46	2.33	67	13
1:B:144:MET:O	1:B:145:TYR:HB2	0.46	2.09	61	1
1:A:44:SER:HB2	1:A:131:LYS:HZ2	0.46	1.71	50	3
1:A:153:ILE:CD1	1:A:153:ILE:N	0.46	2.79	9	1
1:B:152:ASP:OD1	1:B:152:ASP:O	0.46	2.34	13	3
1:A:15:ILE:H	1:A:15:ILE:CD1	0.46	2.23	38	8
1:A:195:ASN:OD1	1:A:197:ASP:N	0.46	2.48	34	30
1:A:86:VAL:CG2	1:A:100:ARG:CZ	0.46	2.94	55	1
1:B:7:GLN:C	1:B:9:GLN:HE22	0.46	2.14	15	4
1:A:159:GLU:OE2	1:A:163:ASP:OD2	0.46	2.34	37	4
1:B:69:LEU:HD21	1:B:138:LEU:HD22	0.46	1.88	48	4
1:A:4:GLN:CD	1:A:4:GLN:N	0.46	2.69	62	1
1:A:87:HIS:CG	1:A:87:HIS:O	0.46	2.69	44	1
1:B:150:ILE:O	1:B:152:ASP:N	0.46	2.49	64	1
1:B:199:LYS:CB	1:B:199:LYS:NZ	0.45	2.79	35	3
1:B:76:GLU:OE1	1:B:76:GLU:O	0.45	2.34	72	8
1:B:164:TYR:OH	1:B:193:ASN:CB	0.45	2.64	67	3
1:A:91:ILE:CD1	1:A:91:ILE:N	0.45	2.79	70	2
1:A:213:GLU:OE1	1:A:213:GLU:N	0.45	2.49	19	4
1:A:2:ILE:CD1	1:A:118:MET:SD	0.45	3.04	98	2
1:A:4:GLN:CD	1:A:10:MET:SD	0.45	2.95	62	1
1:B:16:SER:OG	1:B:18:ARG:CZ	0.45	2.64	52	1
1:A:172:LEU:CD1	1:A:172:LEU:C	0.45	2.84	68	1
1:B:198:CYS:SG	1:B:202:LEU:CD1	0.45	3.04	41	76

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:118:MET:SD	1:B:118:MET:C	0.45	2.94	85	8
1:B:155:GLN:OE1	1:B:156:GLY:O	0.45	2.34	59	10
1:B:7:GLN:O	1:B:7:GLN:OE1	0.45	2.34	85	9
1:B:80:TRP:CD2	1:B:84:HIS:CD2	0.45	3.05	23	23
1:B:5:ASN:HD22	1:B:6:LEU:N	0.45	2.10	90	5
1:A:195:ASN:C	1:A:195:ASN:OD1	0.45	2.54	72	8
1:A:219:GLN:O	1:A:219:GLN:OE1	0.45	2.33	17	12
1:A:150:ILE:HD13	1:A:185:MET:HE1	0.45	1.87	12	1
1:B:193:ASN:OD1	1:B:193:ASN:O	0.45	2.34	89	2
1:B:100:ARG:CZ	1:B:102:SER:H	0.45	2.25	83	1
1:A:81:ASP:HB3	1:A:100:ARG:NE	0.45	2.26	22	1
1:A:80:TRP:CH2	1:A:84:HIS:CD2	0.45	3.04	27	1
1:A:4:GLN:O	1:A:4:GLN:CD	0.45	2.55	2	1
1:B:143:ARG:NH1	1:B:167:ARG:HH21	0.45	2.08	37	1
1:A:20:LEU:CD2	1:A:20:LEU:C	0.45	2.85	82	1
1:B:189:LEU:HD11	1:B:193:ASN:HD22	0.45	1.71	97	1
1:A:35:GLU:OE1	1:B:204:ALA:HB1	0.45	2.11	96	1
1:B:154:ARG:NH1	1:B:154:ARG:O	0.45	2.49	23	1
1:B:17:PRO:O	1:B:18:ARG:NH2	0.45	2.49	92	1
1:A:20:LEU:C	1:A:20:LEU:CD2	0.45	2.85	27	6
1:A:171:THR:O	1:A:175:GLU:OE1	0.45	2.35	54	2
1:A:18:ARG:CZ	1:A:21:ASN:ND2	0.45	2.80	54	1
1:A:144:MET:SD	1:A:144:MET:C	0.45	2.95	66	5
1:B:176:GLN:N	1:B:176:GLN:CD	0.45	2.70	62	2
1:A:195:ASN:OD1	1:A:195:ASN:C	0.45	2.55	22	6
1:B:76:GLU:O	1:B:76:GLU:OE1	0.45	2.35	47	7
1:A:203:LYS:CE	1:B:30:LYS:NZ	0.45	2.79	84	1
1:A:144:MET:C	1:A:145:TYR:CG	0.45	2.89	56	1
1:A:35:GLU:OE2	1:B:204:ALA:O	0.45	2.34	96	1
1:A:32:PHE:CE1	1:A:145:TYR:CG	0.45	3.04	57	1
1:B:171:THR:O	1:B:175:GLU:CD	0.45	2.55	92	9
1:A:159:GLU:OE2	1:A:163:ASP:CG	0.45	2.55	37	2
1:A:213:GLU:O	1:A:216:THR:OG1	0.45	2.31	54	6
1:B:28:GLU:OE1	1:B:29:GLU:OE1	0.45	2.34	66	1
1:A:183:ASN:C	1:A:183:ASN:OD1	0.45	2.50	27	4
1:A:66:MET:SD	1:A:66:MET:C	0.45	2.95	74	6
1:B:66:MET:SD	1:B:66:MET:C	0.45	2.95	41	3
1:B:140:LYS:N	1:B:143:ARG:HH21	0.45	2.09	97	2
1:A:7:GLN:C	1:A:9:GLN:HE22	0.45	2.14	69	1
1:A:179:GLN:NE2	1:A:179:GLN:H	0.45	2.09	45	1
1:A:150:ILE:HG22	1:A:150:ILE:O	0.45	2.11	18	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:103:ASP:CG	1:A:109:SER:OG	0.45	2.55	90	15
1:B:4:GLN:O	1:B:4:GLN:OE1	0.45	2.35	30	8
1:A:15:ILE:HD11	1:A:51:ASP:HB3	0.45	1.88	94	14
1:A:4:GLN:OE1	1:A:4:GLN:O	0.45	2.34	42	7
1:B:69:LEU:HD21	1:B:138:LEU:CD2	0.45	2.42	48	4
1:A:7:GLN:OE1	1:A:7:GLN:O	0.45	2.35	22	4
1:B:211:LEU:HD12	1:B:212:GLU:H	0.45	1.71	89	3
1:A:57:ASN:O	1:A:57:ASN:OD1	0.45	2.34	79	1
1:A:202:LEU:HD21	1:A:218:CYS:SG	0.45	2.52	13	3
1:A:69:LEU:HD21	1:A:138:LEU:CD2	0.45	2.42	14	3
1:B:139:ASN:ND2	1:B:143:ARG:CZ	0.45	2.80	52	1
1:B:15:ILE:CD1	1:B:15:ILE:H	0.45	2.22	5	4
1:B:192:GLN:C	1:B:192:GLN:NE2	0.45	2.70	51	3
1:B:195:ASN:OD1	1:B:195:ASN:C	0.45	2.55	77	8
1:B:144:MET:C	1:B:145:TYR:O	0.45	2.55	73	2
1:B:33:SER:OG	1:B:35:GLU:OE1	0.45	2.35	98	2
1:B:32:PHE:CE2	1:B:145:TYR:CE1	0.45	3.05	98	1
1:B:7:GLN:OE1	1:B:7:GLN:O	0.45	2.35	41	5
1:A:5:ASN:CG	1:A:7:GLN:H	0.45	2.16	37	6
1:B:39:MET:SD	1:B:39:MET:N	0.45	2.90	74	6
1:B:193:ASN:O	1:B:193:ASN:OD1	0.45	2.34	79	1
1:A:84:HIS:CD2	1:A:98:GLU:CD	0.45	2.91	74	2
1:B:37:ILE:HD13	1:B:139:ASN:ND2	0.45	2.27	51	1
1:A:141:ILE:CG2	1:A:145:TYR:CE2	0.45	3.00	64	1
1:B:32:PHE:CE2	1:B:145:TYR:O	0.45	2.70	38	1
1:A:124:ILE:N	1:A:124:ILE:HD12	0.45	2.27	24	7
1:B:28:GLU:OE1	1:B:29:GLU:CD	0.45	2.55	29	6
1:A:61:GLY:HA2	1:A:158:LYS:NZ	0.45	2.27	92	1
1:A:215:MET:C	1:A:215:MET:SD	0.45	2.95	31	4
1:A:4:GLN:O	1:A:4:GLN:OE1	0.45	2.35	27	3
1:B:210:THR:OG1	1:B:213:GLU:OE2	0.45	2.34	13	5
1:A:163:ASP:OD1	1:A:167:ARG:NH1	0.45	2.50	56	1
1:B:150:ILE:HG13	1:B:151:LEU:N	0.45	2.26	9	1
1:A:68:MET:CE	1:A:144:MET:SD	0.45	3.05	47	1
1:A:184:TRP:CE3	1:A:185:MET:SD	0.44	3.11	59	4
1:A:183:ASN:OD1	1:A:183:ASN:C	0.44	2.51	42	3
1:B:6:LEU:O	1:B:6:LEU:CD1	0.44	2.64	70	2
1:A:12:HIS:NE2	1:A:50:GLN:NE2	0.44	2.65	7	1
1:A:184:TRP:CZ2	1:A:189:LEU:HD23	0.44	2.46	47	3
1:B:75:GLU:N	1:B:75:GLU:OE1	0.44	2.50	34	2
1:B:154:ARG:HE	1:B:155:GLN:C	0.44	2.15	64	2

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:132:ARG:NH2	1:A:133:TRP:HE1	0.44	2.10	96	1
1:A:26:VAL:HG13	1:A:39:MET:SD	0.44	2.52	52	6
1:A:95:GLN:CD	1:A:96:MET:H	0.44	2.16	27	7
1:B:167:ARG:NE	1:B:167:ARG:O	0.44	2.48	44	1
1:A:100:ARG:HG3	1:A:102:SER:H	0.44	1.72	57	2
1:A:44:SER:CB	1:A:131:LYS:NZ	0.44	2.81	25	15
1:B:17:PRO:CB	1:B:18:ARG:HH21	0.44	2.25	92	2
1:B:150:ILE:HD12	1:B:185:MET:HG3	0.44	1.89	37	1
1:B:213:GLU:N	1:B:213:GLU:OE1	0.44	2.51	93	1
1:A:86:VAL:HG13	1:A:97:ARG:HH21	0.44	1.70	49	2
1:B:167:ARG:CZ	1:B:171:THR:OG1	0.44	2.65	51	1
1:A:184:TRP:CZ3	1:A:189:LEU:HD23	0.44	2.47	68	1
1:A:203:LYS:CE	1:B:139:ASN:CG	0.44	2.86	80	1
1:B:62:HIS:CD2	1:B:65:ALA:CB	0.44	3.01	78	7
1:A:12:HIS:CD2	1:A:111:LEU:HD21	0.44	2.47	99	6
1:A:92:ALA:HB3	1:A:95:GLN:CD	0.44	2.33	62	2
1:A:18:ARG:NH2	1:A:21:ASN:HD22	0.44	2.09	13	2
1:B:151:LEU:HD12	1:B:151:LEU:N	0.44	2.27	15	2
1:B:110:THR:OG1	1:B:113:GLU:OE1	0.44	2.29	74	2
1:B:94:GLY:C	1:B:95:GLN:NE2	0.44	2.70	26	8
1:A:15:ILE:CD1	1:A:15:ILE:H	0.44	2.23	28	8
1:B:219:GLN:O	1:B:219:GLN:CG	0.44	2.65	74	5
1:A:76:GLU:OE1	1:A:76:GLU:O	0.44	2.35	78	5
1:A:68:MET:O	1:A:72:THR:HG23	0.44	2.12	88	5
1:A:176:GLN:N	1:A:176:GLN:OE1	0.44	2.51	88	1
1:B:113:GLU:OE1	1:B:113:GLU:O	0.44	2.36	64	1
1:B:4:GLN:NE2	1:B:10:MET:SD	0.44	2.90	46	1
1:A:96:MET:SD	1:A:120:HIS:CD2	0.44	3.10	38	4
1:A:97:ARG:HE	1:A:97:ARG:N	0.44	2.07	32	1
1:A:75:GLU:OE2	1:A:79:GLU:OE2	0.44	2.36	99	2
1:B:103:ASP:OD1	1:B:108:THR:OG1	0.44	2.33	84	2
1:B:97:ARG:HH21	1:B:100:ARG:NH2	0.44	2.11	62	1
1:A:67:GLN:O	1:A:71:GLU:OE2	0.44	2.35	88	2
1:A:42:ALA:O	1:A:45:GLU:OE1	0.44	2.36	11	1
1:B:124:ILE:CD1	1:B:124:ILE:N	0.44	2.81	9	4
1:A:118:MET:CE	1:A:127:GLY:H	0.44	2.25	72	1
1:A:7:GLN:HE22	1:A:9:GLN:CD	0.44	2.16	100	1
1:B:154:ARG:NH2	1:B:155:GLN:O	0.44	2.50	97	1
1:B:110:THR:OG1	1:B:113:GLU:CD	0.44	2.56	52	2
1:B:98:GLU:CD	1:B:98:GLU:H	0.44	2.15	71	1
1:A:32:PHE:CE1	1:A:145:TYR:CD2	0.44	3.06	47	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:78:ALA:C	1:B:82:ARG:NH1	0.44	2.71	25	1
1:A:2:ILE:CD1	1:A:2:ILE:H	0.44	2.26	45	8
1:A:91:ILE:HD12	1:A:97:ARG:CZ	0.44	2.43	87	1
1:B:91:ILE:O	1:B:91:ILE:HG23	0.44	2.13	19	3
1:A:179:GLN:O	1:A:183:ASN:OD1	0.44	2.35	55	1
1:B:103:ASP:CG	1:B:109:SER:OG	0.44	2.56	92	7
1:A:44:SER:OG	1:A:55:MET:SD	0.44	2.73	66	1
1:B:80:TRP:CE2	1:B:84:HIS:CD2	0.44	3.05	94	5
1:A:144:MET:O	1:A:145:TYR:CE1	0.44	2.70	78	1
1:B:132:ARG:HH21	1:B:133:TRP:HE1	0.44	1.54	70	1
1:A:143:ARG:NH2	1:A:170:LYS:HZ1	0.44	2.06	43	1
1:A:219:GLN:OE1	1:A:219:GLN:C	0.44	2.56	85	4
1:B:150:ILE:CD1	1:B:150:ILE:H	0.44	2.23	39	1
1:B:150:ILE:CG2	1:B:185:MET:SD	0.44	3.06	78	1
1:A:7:GLN:HB3	1:A:9:GLN:NE2	0.44	2.27	89	1
1:B:195:ASN:C	1:B:195:ASN:OD1	0.43	2.56	87	6
1:B:68:MET:O	1:B:72:THR:HG23	0.43	2.13	12	4
1:B:97:ARG:NH2	1:B:113:GLU:OE2	0.43	2.51	66	1
1:B:26:VAL:HG13	1:B:39:MET:SD	0.43	2.53	68	5
1:A:121:ASN:CG	1:A:121:ASN:O	0.43	2.57	35	2
1:B:154:ARG:O	1:B:154:ARG:NE	0.43	2.50	64	1
1:A:203:LYS:NZ	1:B:34:PRO:HG3	0.43	2.28	10	1
1:A:143:ARG:HH22	1:A:170:LYS:HZ1	0.43	1.52	43	1
1:A:203:LYS:NZ	1:A:203:LYS:CB	0.43	2.80	68	1
1:B:87:HIS:H	1:B:97:ARG:NH2	0.43	2.10	74	2
1:A:150:ILE:C	1:A:150:ILE:CD1	0.43	2.85	86	1
1:B:133:TRP:CD1	1:B:133:TRP:N	0.43	2.86	62	5
1:B:215:MET:SD	1:B:215:MET:C	0.43	2.97	35	3
1:A:76:GLU:O	1:A:76:GLU:OE1	0.43	2.36	33	6
1:B:78:ALA:O	1:B:81:ASP:OD2	0.43	2.37	51	5
1:A:76:GLU:N	1:A:76:GLU:OE1	0.43	2.52	84	2
1:A:18:ARG:NH2	1:A:22:ALA:N	0.43	2.66	13	2
1:A:2:ILE:H	1:A:2:ILE:CD1	0.43	2.25	30	1
1:B:202:LEU:HD21	1:B:218:CYS:SG	0.43	2.53	74	4
1:A:4:GLN:CD	1:A:8:GLY:O	0.43	2.56	85	2
1:A:61:GLY:CA	1:A:158:LYS:NZ	0.43	2.81	92	1
1:A:7:GLN:HG2	1:A:7:GLN:O	0.43	2.14	53	2
1:B:32:PHE:CD2	1:B:145:TYR:CD2	0.43	3.06	41	1
1:B:100:ARG:NE	1:B:100:ARG:CA	0.43	2.80	68	2
1:B:156:GLY:H	1:B:159:GLU:CD	0.43	2.16	14	3
1:B:162:ARG:NE	1:B:163:ASP:OD1	0.43	2.52	60	2

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:185:MET:SD	1:A:185:MET:N	0.43	2.91	69	1
1:B:189:LEU:CD1	1:B:193:ASN:HD22	0.43	2.26	97	1
1:B:100:ARG:CA	1:B:100:ARG:NE	0.43	2.82	52	1
1:A:213:GLU:OE1	1:A:213:GLU:CA	0.43	2.66	39	2
1:A:210:THR:OG1	1:A:213:GLU:OE2	0.43	2.30	84	4
1:A:139:ASN:HD21	1:A:167:ARG:CZ	0.43	2.27	3	1
1:A:80:TRP:CH2	1:A:84:HIS:CE1	0.43	3.05	15	6
1:B:98:GLU:OE2	1:B:100:ARG:NH1	0.43	2.51	70	1
1:B:86:VAL:CG1	1:B:100:ARG:HE	0.43	2.26	1	1
1:A:44:SER:OG	1:A:131:LYS:NZ	0.43	2.40	31	2
1:A:2:ILE:HD13	1:A:3:VAL:N	0.43	2.29	68	1
1:A:144:MET:C	1:A:144:MET:SD	0.43	2.97	38	1
1:A:76:GLU:CD	1:A:76:GLU:N	0.43	2.72	4	2
1:A:175:GLU:OE1	1:A:177:ALA:N	0.43	2.52	67	1
1:B:15:ILE:HD13	1:B:55:MET:SD	0.43	2.53	67	1
1:B:18:ARG:HH21	1:B:21:ASN:ND2	0.43	2.11	54	1
1:A:143:ARG:NE	1:A:143:ARG:HA	0.43	2.28	82	1
1:B:120:HIS:ND1	1:B:122:PRO:O	0.43	2.47	23	4
1:B:91:ILE:HG23	1:B:91:ILE:O	0.43	2.13	4	4
1:B:120:HIS:CE1	1:B:121:ASN:OD1	0.43	2.70	79	2
1:B:143:ARG:HH22	1:B:157:PRO:HD3	0.43	1.73	63	1
1:B:153:ILE:HD11	1:B:167:ARG:CD	0.43	2.43	33	2
1:A:16:SER:OG	1:A:19:THR:HG23	0.43	2.13	69	1
1:A:121:ASN:O	1:A:121:ASN:OD1	0.43	2.36	90	2
1:A:210:THR:OG1	1:A:213:GLU:CD	0.43	2.57	76	4
1:A:153:ILE:N	1:A:153:ILE:HD12	0.43	2.28	84	2
1:B:30:LYS:CD	1:B:30:LYS:N	0.43	2.82	78	1
1:B:143:ARG:CG	1:B:167:ARG:NH1	0.43	2.81	51	1
1:A:32:PHE:HB2	1:A:145:TYR:CD2	0.43	2.49	60	1
1:B:140:LYS:HZ2	1:B:143:ARG:HH21	0.43	1.56	24	1
1:B:97:ARG:NE	1:B:100:ARG:HH12	0.43	2.10	35	1
1:A:142:VAL:HG23	1:A:143:ARG:N	0.43	2.29	12	90
1:B:92:ALA:H	1:B:95:GLN:NE2	0.43	2.11	86	1
1:B:163:ASP:OD1	1:B:166:ASP:OD2	0.43	2.36	98	2
1:B:213:GLU:CA	1:B:213:GLU:OE1	0.43	2.66	68	1
1:B:142:VAL:HG23	1:B:143:ARG:N	0.43	2.29	40	78
1:A:87:HIS:N	1:A:97:ARG:HH22	0.43	2.06	24	2
1:A:181:VAL:HG12	1:A:185:MET:CE	0.43	2.44	37	1
1:B:95:GLN:HG2	1:B:96:MET:N	0.43	2.29	7	3
1:B:71:GLU:O	1:B:75:GLU:CD	0.43	2.57	89	3
1:B:143:ARG:NH1	1:B:152:ASP:CG	0.43	2.72	100	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:154:ARG:CD	1:A:155:GLN:O	0.43	2.67	20	2
1:B:57:ASN:C	1:B:57:ASN:OD1	0.43	2.57	97	2
1:A:171:THR:O	1:A:175:GLU:HG2	0.43	2.13	77	5
1:B:12:HIS:CE1	1:B:50:GLN:OE1	0.43	2.71	49	2
1:B:213:GLU:O	1:B:216:THR:OG1	0.43	2.31	96	7
1:A:20:LEU:O	1:A:20:LEU:HD23	0.43	2.14	42	4
1:B:166:ASP:CG	1:B:167:ARG:NH2	0.43	2.72	73	1
1:B:143:ARG:NE	1:B:154:ARG:NH2	0.43	2.67	75	1
1:A:219:GLN:C	1:A:219:GLN:OE1	0.43	2.57	16	1
1:A:67:GLN:O	1:A:71:GLU:CD	0.43	2.57	96	1
1:A:203:LYS:NZ	1:B:38:PRO:HG2	0.43	2.29	35	1
1:B:103:ASP:O	1:B:114:GLN:NE2	0.42	2.52	85	14
1:B:79:GLU:N	1:B:82:ARG:HH21	0.42	2.12	18	1
1:A:192:GLN:OE1	1:A:193:ASN:OD1	0.42	2.37	87	1
1:B:143:ARG:C	1:B:143:ARG:NE	0.42	2.73	87	1
1:B:7:GLN:CD	1:B:7:GLN:N	0.42	2.73	55	1
1:A:175:GLU:OE2	1:A:176:GLN:N	0.42	2.50	97	1
1:B:32:PHE:CE1	1:B:145:TYR:CD2	0.42	3.07	43	1
1:A:167:ARG:HE	1:A:171:THR:HG23	0.42	1.73	3	2
1:B:183:ASN:OD1	1:B:187:GLU:CD	0.42	2.58	81	1
1:B:79:GLU:OE1	1:B:79:GLU:O	0.42	2.37	54	1
1:B:76:GLU:C	1:B:76:GLU:OE1	0.42	2.58	47	2
1:A:42:ALA:CB	1:B:205:LEU:O	0.42	2.66	70	1
1:B:189:LEU:O	1:B:189:LEU:HD13	0.42	2.13	97	1
1:B:5:ASN:HD21	1:B:7:GLN:CD	0.42	2.17	15	1
1:B:151:LEU:N	1:B:151:LEU:HD12	0.42	2.28	91	1
1:A:132:ARG:NH1	1:A:136:LEU:HD11	0.42	2.29	95	1
1:B:80:TRP:CD2	1:B:84:HIS:CE1	0.42	3.08	52	1
1:B:94:GLY:O	1:B:95:GLN:OE1	0.42	2.37	94	1
1:A:97:ARG:N	1:A:97:ARG:HE	0.42	2.08	87	1
1:B:86:VAL:CG1	1:B:100:ARG:NH2	0.42	2.83	9	1
1:B:67:GLN:NE2	1:B:67:GLN:O	0.42	2.51	23	2
1:B:114:GLN:OE1	1:B:114:GLN:CA	0.42	2.68	6	7
1:B:78:ALA:C	1:B:82:ARG:HH21	0.42	2.18	38	2
1:A:103:ASP:OD1	1:A:108:THR:OG1	0.42	2.34	86	3
1:B:153:ILE:HD12	1:B:153:ILE:N	0.42	2.27	54	1
1:B:163:ASP:OD1	1:B:167:ARG:CZ	0.42	2.68	66	2
1:A:182:LYS:HB2	1:A:182:LYS:HZ2	0.42	1.73	58	2
1:B:121:ASN:CG	1:B:121:ASN:O	0.42	2.56	20	3
1:A:86:VAL:CG2	1:A:97:ARG:NH2	0.42	2.82	69	1
1:A:121:ASN:OD1	1:A:121:ASN:O	0.42	2.37	91	3

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:110:THR:HG1	1:B:113:GLU:CD	0.42	2.17	52	1
1:B:44:SER:CB	1:B:131:LYS:NZ	0.42	2.83	2	6
1:B:67:GLN:O	1:B:67:GLN:NE2	0.42	2.53	73	1
1:A:185:MET:N	1:A:185:MET:SD	0.42	2.92	34	2
1:B:75:GLU:OE1	1:B:75:GLU:N	0.42	2.53	79	1
1:B:81:ASP:OD2	1:B:82:ARG:NH1	0.42	2.52	93	1
1:B:184:TRP:CZ3	1:B:189:LEU:HD23	0.42	2.50	50	1
1:A:203:LYS:NZ	1:B:38:PRO:CD	0.42	2.82	35	1
1:A:79:GLU:CD	1:A:82:ARG:HH12	0.42	2.17	55	1
1:A:97:ARG:HE	1:A:100:ARG:NH1	0.42	2.12	92	1
1:A:95:GLN:OE1	1:A:96:MET:N	0.42	2.53	37	4
1:B:179:GLN:O	1:B:183:ASN:OD1	0.42	2.37	7	3
1:B:7:GLN:HB3	1:B:9:GLN:NE2	0.42	2.30	89	1
1:A:150:ILE:N	1:A:150:ILE:HD13	0.42	2.30	27	1
1:A:12:HIS:C	1:A:13:GLN:NE2	0.42	2.72	14	2
1:B:175:GLU:OE1	1:B:176:GLN:C	0.42	2.57	68	1
1:A:150:ILE:HD11	1:A:168:PHE:CZ	0.42	2.50	55	1
1:A:91:ILE:N	1:A:91:ILE:HD13	0.42	2.29	67	1
1:B:71:GLU:O	1:B:75:GLU:OE2	0.42	2.37	79	3
1:A:96:MET:CE	1:A:120:HIS:ND1	0.42	2.83	70	1
1:A:145:TYR:CD1	1:A:145:TYR:N	0.42	2.86	25	1
1:B:13:GLN:OE1	1:B:14:ALA:O	0.42	2.37	95	1
1:A:150:ILE:HD11	1:A:185:MET:SD	0.42	2.55	3	1
1:B:15:ILE:O	1:B:15:ILE:CD1	0.42	2.68	58	2
1:A:18:ARG:HE	1:A:18:ARG:N	0.42	2.10	53	1
1:A:166:ASP:OD1	1:A:166:ASP:C	0.42	2.58	83	1
1:B:97:ARG:HE	1:B:97:ARG:N	0.42	2.08	88	1
1:B:143:ARG:HG3	1:B:167:ARG:NH1	0.42	2.30	51	1
1:B:155:GLN:NE2	1:B:195:ASN:OD1	0.42	2.52	24	1
1:A:21:ASN:C	1:A:21:ASN:OD1	0.42	2.57	99	1
1:B:97:ARG:CD	1:B:97:ARG:H	0.42	2.27	99	1
1:A:5:ASN:OD1	1:A:5:ASN:N	0.42	2.53	74	1
1:B:114:GLN:CA	1:B:114:GLN:OE1	0.42	2.68	5	7
1:B:143:ARG:NH1	1:B:144:MET:SD	0.42	2.93	39	1
1:B:143:ARG:HE	1:B:154:ARG:NH2	0.42	2.13	75	1
1:B:57:ASN:O	1:B:57:ASN:OD1	0.42	2.37	9	3
1:A:204:ALA:HA	1:B:41:SER:C	0.42	2.35	70	1
1:B:96:MET:CE	1:B:120:HIS:CE1	0.42	3.03	89	1
1:A:112:GLN:H	1:A:112:GLN:NE2	0.42	2.12	88	1
1:B:179:GLN:OE1	1:B:179:GLN:N	0.42	2.50	2	1
1:A:20:LEU:HD23	1:A:20:LEU:O	0.42	2.14	82	3

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:70:LYS:O	1:B:74:ASN:OD1	0.42	2.37	54	1
1:B:139:ASN:O	1:B:143:ARG:HG2	0.42	2.15	70	1
1:A:182:LYS:HZ2	1:A:182:LYS:HB2	0.42	1.74	48	1
1:B:15:ILE:CD1	1:B:15:ILE:O	0.42	2.68	48	2
1:B:75:GLU:O	1:B:75:GLU:OE1	0.42	2.38	24	1
1:A:76:GLU:CD	1:A:133:TRP:NE1	0.42	2.73	33	1
1:A:118:MET:C	1:A:118:MET:SD	0.42	2.98	98	1
1:B:189:LEU:HD13	1:B:189:LEU:O	0.42	2.14	52	1
1:A:192:GLN:NE2	1:A:192:GLN:C	0.41	2.73	69	1
1:B:63:GLN:CD	1:B:63:GLN:H	0.41	2.18	57	1
1:B:177:ALA:HB3	1:B:182:LYS:HZ1	0.41	1.75	91	3
1:A:177:ALA:HB3	1:A:182:LYS:NZ	0.41	2.31	99	2
1:A:5:ASN:HD21	1:A:7:GLN:CD	0.41	2.18	61	1
1:A:76:GLU:OE1	1:A:76:GLU:N	0.41	2.53	9	1
1:B:162:ARG:HH21	1:B:215:MET:CE	0.41	2.28	95	1
1:A:80:TRP:CD1	1:A:104:ILE:CD1	0.41	3.04	52	1
1:B:5:ASN:OD1	1:B:9:GLN:O	0.41	2.38	68	1
1:B:167:ARG:NE	1:B:167:ARG:CA	0.41	2.83	8	1
1:A:20:LEU:HD12	1:A:55:MET:SD	0.41	2.54	92	1
1:B:179:GLN:CD	1:B:179:GLN:H	0.41	2.14	37	1
1:B:145:TYR:O	1:B:145:TYR:CD1	0.41	2.73	41	1
1:B:87:HIS:NE2	1:B:97:ARG:NH1	0.41	2.68	46	1
1:B:4:GLN:OE1	1:B:8:GLY:C	0.41	2.59	71	1
1:B:18:ARG:NH1	1:B:22:ALA:HB2	0.41	2.30	99	1
1:B:197:ASP:O	1:B:197:ASP:OD1	0.41	2.37	68	1
1:B:79:GLU:O	1:B:79:GLU:CD	0.41	2.58	54	1
1:B:192:GLN:NE2	1:B:192:GLN:C	0.41	2.73	23	2
1:A:173:ARG:NH2	1:A:182:LYS:HZ2	0.41	2.12	69	1
1:A:132:ARG:NH2	1:A:133:TRP:NE1	0.41	2.69	96	1
1:B:75:GLU:OE1	1:B:75:GLU:CA	0.41	2.69	79	3
1:A:179:GLN:H	1:A:179:GLN:NE2	0.41	2.14	16	1
1:B:32:PHE:CD2	1:B:145:TYR:CE1	0.41	3.08	14	1
1:A:150:ILE:HG23	1:A:171:THR:OG1	0.41	2.16	64	1
1:B:71:GLU:OE1	1:B:71:GLU:C	0.41	2.59	46	1
1:B:63:GLN:OE1	1:B:64:ALA:N	0.41	2.47	30	1
1:B:167:ARG:HH11	1:B:171:THR:HG22	0.41	1.75	2	1
1:A:30:LYS:NZ	1:A:35:GLU:OE1	0.41	2.40	82	1
1:A:186:THR:CG2	1:A:187:GLU:OE1	0.41	2.69	49	1
1:B:4:GLN:OE1	1:B:9:GLN:C	0.41	2.59	56	2
1:B:85:PRO:C	1:B:100:ARG:HH12	0.41	2.19	15	1
1:A:203:LYS:CB	1:A:203:LYS:NZ	0.41	2.84	98	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:B:219:GLN:CG	1:B:219:GLN:O	0.41	2.68	87	1
1:B:34:PRO:HG2	1:B:152:ASP:OD1	0.41	2.15	3	1
1:B:56:LEU:HD11	1:B:69:LEU:HD13	0.41	1.92	37	6
1:B:98:GLU:C	1:B:98:GLU:OE1	0.41	2.59	66	2
1:B:85:PRO:O	1:B:87:HIS:CE1	0.41	2.73	82	1
1:B:76:GLU:CD	1:B:76:GLU:N	0.41	2.74	85	2
1:B:68:MET:C	1:B:68:MET:SD	0.41	2.98	10	1
1:B:121:ASN:OD1	1:B:121:ASN:O	0.41	2.38	74	1
1:B:211:LEU:HD23	1:B:211:LEU:O	0.41	2.15	87	2
1:B:75:GLU:CD	1:B:75:GLU:C	0.41	2.79	55	1
1:A:50:GLN:OE1	1:A:54:THR:OG1	0.41	2.39	11	1
1:B:95:GLN:O	1:B:96:MET:CE	0.41	2.69	78	1
1:B:166:ASP:C	1:B:166:ASP:OD1	0.41	2.59	90	2
1:A:150:ILE:O	1:A:151:LEU:C	0.41	2.59	88	1
1:A:100:ARG:NE	1:A:100:ARG:CA	0.41	2.84	64	1
1:B:155:GLN:OE1	1:B:159:GLU:O	0.41	2.38	24	1
1:A:150:ILE:HD13	1:A:175:GLU:OE1	0.41	2.16	33	1
1:B:5:ASN:CG	1:B:7:GLN:H	0.41	2.18	57	1
1:B:12:HIS:CD2	1:B:48:THR:HG21	0.41	2.51	4	3
1:B:4:GLN:OE1	1:B:4:GLN:N	0.41	2.48	86	1
1:A:12:HIS:CD2	1:A:12:HIS:N	0.41	2.89	76	1
1:B:20:LEU:HD12	1:B:55:MET:SD	0.41	2.56	65	3
1:B:18:ARG:HH21	1:B:21:ASN:CG	0.41	2.19	54	1
1:A:95:GLN:N	1:A:95:GLN:CD	0.41	2.74	66	1
1:A:35:GLU:OE1	1:A:35:GLU:C	0.41	2.60	66	1
1:A:2:ILE:HD12	1:A:118:MET:SD	0.41	2.56	93	2
1:A:129:ILE:O	1:A:133:TRP:CD1	0.41	2.74	93	1
1:A:79:GLU:OE1	1:A:82:ARG:NH2	0.41	2.49	88	1
1:B:143:ARG:HG3	1:B:167:ARG:HH12	0.41	1.76	51	1
1:A:163:ASP:CG	1:A:167:ARG:HH12	0.41	2.19	56	1
1:A:139:ASN:OD1	1:A:143:ARG:CD	0.41	2.69	60	1
1:B:162:ARG:CZ	1:B:163:ASP:OD1	0.41	2.68	60	1
1:B:91:ILE:CD1	1:B:97:ARG:HH21	0.41	2.28	36	1
1:B:179:GLN:CD	1:B:179:GLN:N	0.41	2.74	46	1
1:B:32:PHE:CZ	1:B:145:TYR:CE2	0.41	3.09	43	1
1:B:219:GLN:O	1:B:219:GLN:CD	0.41	2.59	15	1
1:A:173:ARG:HH21	1:A:182:LYS:NZ	0.41	2.13	87	1
1:B:133:TRP:N	1:B:133:TRP:CD1	0.41	2.88	55	3
1:B:97:ARG:NH2	1:B:113:GLU:CD	0.41	2.74	66	1
1:B:98:GLU:CD	1:B:98:GLU:O	0.41	2.59	12	1
1:B:63:GLN:HG3	1:B:64:ALA:N	0.41	2.30	62	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:76:GLU:HG2	1:A:133:TRP:CD1	0.41	2.50	93	2
1:B:145:TYR:O	1:B:145:TYR:CG	0.41	2.74	83	1
1:B:97:ARG:CD	1:B:97:ARG:N	0.40	2.84	99	2
1:B:124:ILE:N	1:B:124:ILE:CD1	0.40	2.83	29	1
1:B:85:PRO:C	1:B:100:ARG:HH22	0.40	2.20	72	1
1:B:45:GLU:O	1:B:45:GLU:CD	0.40	2.60	62	1
1:A:12:HIS:CE1	1:A:112:GLN:NE2	0.40	2.89	100	1
1:B:67:GLN:HG3	1:B:68:MET:N	0.40	2.31	30	1
1:B:86:VAL:HG13	1:B:100:ARG:NH1	0.40	2.31	74	1
1:A:32:PHE:CD2	1:A:145:TYR:CE2	0.40	3.09	86	1
1:A:29:GLU:OE1	1:A:30:LYS:NZ	0.40	2.55	67	1
1:A:50:GLN:OE1	1:A:111:LEU:HD13	0.40	2.15	93	3
1:A:77:ALA:O	1:A:81:ASP:OD2	0.40	2.39	8	3
1:B:81:ASP:OD2	1:B:100:ARG:CZ	0.40	2.69	20	1
1:A:98:GLU:OE1	1:A:98:GLU:C	0.40	2.60	97	1
1:A:84:HIS:NE2	1:A:98:GLU:CG	0.40	2.84	74	1
1:B:87:HIS:NE2	1:B:98:GLU:OE1	0.40	2.52	31	1
1:A:152:ASP:OD1	1:A:152:ASP:C	0.40	2.60	90	1
1:A:172:LEU:CD1	1:A:185:MET:SD	0.40	3.10	26	1
1:A:35:GLU:OE2	1:B:204:ALA:CB	0.40	2.67	86	1
1:A:25:LYS:NZ	1:A:25:LYS:CB	0.40	2.84	37	1
1:B:87:HIS:N	1:B:97:ARG:HH22	0.40	2.14	37	1
1:A:192:GLN:HE21	1:A:193:ASN:ND2	0.40	2.14	70	1
1:A:21:ASN:OD1	1:A:21:ASN:O	0.40	2.38	71	1
1:A:145:TYR:CG	1:A:145:TYR:O	0.40	2.71	31	1
1:A:167:ARG:O	1:A:167:ARG:NE	0.40	2.50	31	1
1:A:12:HIS:N	1:A:12:HIS:CD2	0.40	2.90	80	1
1:B:15:ILE:CG2	1:B:19:THR:OG1	0.40	2.70	11	2
1:A:145:TYR:CD2	1:A:145:TYR:C	0.40	2.91	37	1
1:A:189:LEU:CD2	1:A:193:ASN:ND2	0.40	2.83	12	1
1:B:142:VAL:CG2	1:B:143:ARG:N	0.40	2.85	70	1
1:B:5:ASN:CG	1:B:7:GLN:OE1	0.40	2.59	61	1
1:A:7:GLN:OE1	1:A:9:GLN:CD	0.40	2.59	48	1
1:B:162:ARG:CD	1:B:215:MET:SD	0.40	3.09	51	1
1:B:30:LYS:N	1:B:30:LYS:CD	0.40	2.85	33	1
1:A:28:GLU:OE1	1:A:29:GLU:CD	0.40	2.60	68	1
1:B:33:SER:O	1:B:36:VAL:HG12	0.40	2.17	28	1
1:B:167:ARG:HH11	1:B:171:THR:CG2	0.40	2.29	82	1
1:A:150:ILE:O	1:A:152:ASP:N	0.40	2.55	88	1
1:A:76:GLU:OE2	1:A:80:TRP:CZ3	0.40	2.75	97	1
1:A:1:PRO:HB2	1:A:2:ILE:HD12	0.40	1.94	2	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:12:HIS:CD2	1:A:48:THR:HG21	0.40	2.52	1	1
1:A:203:LYS:NZ	1:B:34:PRO:CG	0.40	2.84	10	1
1:B:76:GLU:N	1:B:76:GLU:CD	0.40	2.74	10	1
1:A:173:ARG:HH22	1:A:182:LYS:NZ	0.40	2.14	94	1
1:A:143:ARG:HH11	1:A:171:THR:HG22	0.40	1.77	8	1

6.3 Torsion angles

6.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR 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	215/231 (93%)	211±1 (98±0%)	2±1 (1±0%)	2±1 (1±0%)	27	73
1	B	215/231 (93%)	211±1 (98±0%)	2±1 (1±0%)	2±1 (1±0%)	30	75
All	All	43000/46200 (93%)	42177 (98%)	493 (1%)	330 (1%)	27	73

All 8 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
1	A	31	ALA	100
1	B	31	ALA	100
1	A	150	ILE	47
1	B	150	ILE	30
1	B	145	TYR	28
1	A	145	TYR	23
1	A	151	LEU	1
1	B	151	LEU	1

6.3.2 Protein sidechains

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all NMR 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	184/194 (95%)	171±3 (93±2%)	13±3 (7±2%)	22	68
1	B	184/194 (95%)	170±4 (92±2%)	14±4 (8±2%)	20	66
All	All	36800/38800 (95%)	34121 (93%)	2679 (7%)	21	67

All 152 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
1	B	180	GLU	100
1	B	178	SER	100
1	A	180	GLU	100
1	A	178	SER	99
1	A	198	CYS	91
1	B	198	CYS	87
1	A	195	ASN	54
1	B	195	ASN	53
1	A	193	ASN	51
1	A	10	MET	47
1	B	192	GLN	46
1	B	96	MET	45
1	A	39	MET	45
1	B	24	VAL	43
1	B	58	THR	42
1	A	192	GLN	40
1	B	10	MET	40
1	A	150	ILE	37
1	A	58	THR	34
1	B	15	ILE	33
1	A	96	MET	33
1	B	189	LEU	32
1	A	2	ILE	31
1	A	24	VAL	31
1	B	76	GLU	31
1	A	159	GLU	30
1	B	193	ASN	29
1	A	175	GLU	29
1	A	145	TYR	28
1	B	118	MET	28
1	B	145	TYR	27
1	A	100	ARG	26
1	B	159	GLU	25
1	A	7	GLN	25

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Mol	Chain	Res	Type	Models (Total)
1	B	185	MET	25
1	A	15	ILE	24
1	A	4	GLN	24
1	B	4	GLN	23
1	B	63	GLN	23
1	A	136	LEU	23
1	A	6	LEU	23
1	B	39	MET	23
1	A	82	ARG	22
1	B	154	ARG	22
1	A	76	GLU	22
1	A	213	GLU	21
1	B	53	ASN	20
1	A	176	GLN	20
1	B	7	GLN	19
1	B	143	ARG	19
1	B	68	MET	19
1	B	100	ARG	19
1	B	97	ARG	18
1	B	167	ARG	18
1	B	67	GLN	18
1	B	50	GLN	18
1	A	108	THR	18
1	B	155	GLN	17
1	A	74	ASN	17
1	A	154	ARG	16
1	A	219	GLN	16
1	B	175	GLU	16
1	B	213	GLU	15
1	A	120	HIS	14
1	B	144	MET	14
1	B	114	GLN	14
1	A	18	ARG	14
1	B	150	ILE	14
1	B	95	GLN	14
1	B	75	GLU	13
1	B	170	LYS	13
1	B	173	ARG	13
1	B	6	LEU	12
1	A	189	LEU	12
1	A	68	MET	12
1	B	98	GLU	11

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Mol	Chain	Res	Type	Models (Total)
1	B	108	THR	11
1	B	107	THR	10
1	A	167	ARG	10
1	A	97	ARG	10
1	B	83	LEU	10
1	B	176	GLN	9
1	A	80	TRP	9
1	A	98	GLU	9
1	A	170	LYS	9
1	B	81	ASP	9
1	B	2	ILE	9
1	B	113	GLU	9
1	A	158	LYS	8
1	A	185	MET	8
1	B	215	MET	8
1	A	215	MET	8
1	B	18	ARG	8
1	B	179	GLN	7
1	A	67	GLN	7
1	B	163	ASP	7
1	B	5	ASN	6
1	A	113	GLU	6
1	A	139	ASN	6
1	A	118	MET	6
1	B	74	ASN	6
1	B	162	ARG	5
1	A	107	THR	5
1	A	132	ARG	5
1	A	66	MET	4
1	A	79	GLU	4
1	A	13	GLN	4
1	A	21	ASN	4
1	B	219	GLN	4
1	B	110	THR	4
1	B	136	LEU	4
1	A	112	GLN	4
1	B	79	GLU	4
1	B	205	LEU	4
1	A	173	ARG	3
1	B	82	ARG	3
1	A	84	HIS	3
1	B	203	LYS	3

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Mol	Chain	Res	Type	Models (Total)
1	B	164	TYR	3
1	A	119	THR	3
1	B	211	LEU	3
1	B	184	TRP	3
1	A	152	ASP	3
1	B	140	LYS	3
1	A	71	GLU	3
1	B	152	ASP	3
1	A	179	GLN	3
1	B	153	ILE	2
1	B	197	ASP	2
1	A	50	GLN	2
1	B	121	ASN	2
1	B	13	GLN	2
1	A	203	LYS	2
1	B	25	LYS	2
1	B	166	ASP	2
1	A	57	ASN	2
1	A	83	LEU	2
1	B	138	LEU	2
1	A	5	ASN	2
1	B	19	THR	2
1	B	119	THR	2
1	A	143	ARG	2
1	B	132	ARG	1
1	B	158	LYS	1
1	A	91	ILE	1
1	A	9	GLN	1
1	A	63	GLN	1
1	A	16	SER	1
1	B	71	GLU	1
1	A	162	ARG	1
1	B	16	SER	1
1	B	62	HIS	1

6.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

6.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.6 Ligand geometry [i](#)

There are no ligands in this entry.

6.7 Other polymers [i](#)

There are no such molecules in this entry.

6.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

7 Chemical shift validation

The completeness of assignment taking into account all chemical shift lists is 16% for the well-defined parts and 16% for the entire structure.

7.1 Chemical shift list 1

File name: 2m8l_cs.str

Chemical shift list name: *assigned_chem_shift_list_1*

7.1.1 Bookkeeping

The following table shows the results of parsing the chemical shift list and reports the number of nuclei with statistically unusual chemical shifts.

Total number of shifts	919
Number of shifts mapped to atoms	919
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Number of shift outliers (ShiftChecker)	0

7.1.2 Chemical shift referencing

The following table shows the suggested chemical shift referencing corrections.

Nucleus	# values	Correction \pm precision, ppm	Suggested action
$^{13}\text{C}_\alpha$	200	0.09 ± 0.14	None needed (< 0.5 ppm)
$^{13}\text{C}_\beta$	173	1.36 ± 0.05	Should be applied
$^{13}\text{C}'$	190	-0.38 ± 0.11	None needed (< 0.5 ppm)
^{15}N	178	0.07 ± 0.30	None needed (< 0.5 ppm)

7.1.3 Completeness of resonance assignments

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 16%, i.e. 875 atoms were assigned a chemical shift out of a possible 5358. 0 out of 62 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^1H	^{13}C	^{15}N
Backbone	709/2106 (34%)	169/836 (20%)	371/868 (43%)	169/402 (42%)
Sidechain	166/2916 (6%)	0/1714 (0%)	166/1072 (15%)	0/130 (0%)

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	Total	¹ H	¹³ C	¹⁵ N
Aromatic	0/336 (0%)	0/172 (0%)	0/134 (0%)	0/30 (0%)
Overall	875/5358 (16%)	169/2722 (6%)	537/2074 (26%)	169/562 (30%)

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 16%, i.e. 875 atoms were assigned a chemical shift out of a possible 5432. 0 out of 62 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	¹ H	¹³ C	¹⁵ N
Backbone	709/2142 (33%)	169/850 (20%)	371/884 (42%)	169/408 (41%)
Sidechain	166/2954 (6%)	0/1738 (0%)	166/1086 (15%)	0/130 (0%)
Aromatic	0/336 (0%)	0/172 (0%)	0/134 (0%)	0/30 (0%)
Overall	875/5432 (16%)	169/2760 (6%)	537/2104 (26%)	169/568 (30%)

7.1.4 Statistically unusual chemical shifts [i](#)

There are no statistically unusual chemical shifts.

7.1.5 Random Coil Index (RCI) plots [i](#)

The image below reports *random coil index* values for the protein chains in the structure. The height of each bar gives a probability of a given residue to be disordered, as predicted from the available chemical shifts and the amino acid sequence. A value above 0.2 is an indication of significant predicted disorder. The colour of the bar shows whether the residue is in the well-defined core (black) or in the ill-defined residue ranges (cyan), as described in section 2 on ensemble composition.

Random coil index (RCI) for chain A:

