

HADDOCK 2.4

@Bonvinlab

WELCOME TO THE UTRECHT BIOMOLECULAR INTERACTION WEB PORTAL >>

HADDOCK server status for job "cford_HLA-csp-22"

Status: FINISHED

Your HADDOCK run has successfully completed. The complete run can be downloaded as a gzipped tar file [here](#). The file containing your docking parameters is [here](#).

Please cite the following paper in your work:

G.C.P van Zundert, J.P.G.L.M. Rodrigues, M. Trellet, C. Schmitz, P.L. Kastiris, E. Karaca, A.S.J. Melquiond, M. van Dijk, S.J. de Vries and A.M.J.J. Bonvin (2016). "The HADDOCK2.2 webserver: User-friendly integrative modeling of biomolecular complexes." *J. Mol. Biol.*, **428**, 720-725 (2015).

and add the following acknowledgment:

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How would you rate your experience with our portal?



Questions / feedback ? ask.bioexcel.eu

Do check up the [HADDOCK best practice guide!](#) There you can learn more about which settings are best used in which scenario and use HADDOCK in its full potential!

In the aim to improve our new web portal, we would really appreciate 2 min of your time to complete a short survey [here!](#) Thanks!

Post-processing: SUCCESS

Summary

HADDOCK clustered **164** structures in **9** cluster(s), which represents **82 %** of the water-refined models HADDOCK generated. Note that currently the maximum number of models considered for clustering is 200.

The statistics of the top 10 clusters are shown below. The top cluster is the most reliable according to HADDOCK. Its Z-score indicates how many standard deviations from the average this cluster is located in terms of score (the more negative the better).

A [graphical representation](#) of the results is also provided at the bottom of the page.

You can also [download all cluster files](#) (best 4 of the top 10 cluster(s)).






Cluster 5

| | |
|---|-----------------|
| HADDOCK score | -74.6 +/- 2.8 |
| Cluster size | 12 |
| RMSD from the overall lowest-energy structure | 0.3 +/- 0.2 |
| Van der Waals energy | -26.7 +/- 5.4 |
| Electrostatic energy | -262.8 +/- 28.4 |
| Desolvation energy | 2.0 +/- 1.7 |

Restraints violation energy 26.3 +/- 23.1

Buried Surface Area 1192.6 +/- 58.0

Z-Score -1.3

| | | | |
|---------------------|---|---------------------------------|---|
| Nr 1 best structure |  | Download file ▾ |  |
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Cluster 1

HADDOCK score -68.7 +/- 2.6

Cluster size 48

RMSD from the overall lowest-energy structure 3.0 +/- 0.1

Van der Waals energy -34.5 +/- 5.3






Electrostatic energy -159.0 +/- 18.2

Desolvation energy -4.4 +/- 2.0

Restraints violation energy 20.0 +/- 17.2

Buried Surface Area 1177.4 +/- 57.6

Z-Score -0.6

| | | | |
|---------------------|---|---------------------------------|---|
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Cluster 7

HADDOCK score -68.1 +/- 3.9

Cluster size 7

RMSD from the overall lowest-energy structure 3.0 +/- 0.0

Van der Waals energy -33.3 +/- 5.3





Electrostatic energy -165.3 +/- 44.3

Desolvation energy -3.7 +/- 2.8

Restraints violation energy 19.6 +/- 13.5

Buried Surface Area 1458.5 +/- 40.2

Z-Score -0.5

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|---------------------|---|---------------------------------|---|
| Nr 1 best structure |  | Download file ▾ |  |
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Nr 4 best structure

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Cluster 6

HADDOCK score

-67.9 +/- 4.1

Cluster size

11

RMSD from the overall lowest-energy structure

2.6 +/- 0.0

Van der Waals energy

-36.9 +/- 2.2

Electrostatic energy

-124.7 +/- 13.3

Desolvation energy

-7.5 +/- 1.5

Restraints violation energy

14.9 +/- 8.5

Buried Surface Area

1320.7 +/- 57.1

Z-Score

-0.5

Nr 1 best structure

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Nr 2 best structure

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Nr 3 best structure

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Nr 4 best structure

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Cluster 3

HADDOCK score

-65.8 +/- 2.1

Cluster size

28

RMSD from the overall lowest-energy structure

0.8 +/- 0.1

Van der Waals energy

-34.3 +/- 2.0

Electrostatic energy

-124.3 +/- 13.5

Desolvation energy

-8.3 +/- 1.2

Restraints violation energy

16.6 +/- 14.4

Buried Surface Area

1241.1 +/- 24.6

Z-Score

-0.2

Nr 1 best structure

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Nr 2 best structure

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Nr 3 best structure

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Nr 4 best structure

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Cluster 2

HADDOCK score

-64.3 +/- 0.9

Cluster size

35


RMSD from the overall lowest-energy structure

2.9 +/- 0.0

Van der Waals energy

-23.1 +/- 3.4

| | |
|-----------------------------|-----------------|
| Electrostatic energy | -201.6 +/- 23.3 |
| Desolvation energy | -2.1 +/- 1.3 |
| Restraints violation energy | 11.4 +/- 1.1 |
| Buried Surface Area | 1303.8 +/- 76.4 |
| Z-Score | -0.0 |

| | | |
|---------------------|---|---------------------------------|
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Cluster 4

| | |
|---|-----------------|
| HADDOCK score | -61.8 +/- 3.4 |
| Cluster size | 14 |
| RMSD from the overall lowest-energy structure | 2.5 +/- 0.2 |
| Van der Waals energy | -41.0 +/- 3.5 |
| Electrostatic energy | -78.8 +/- 31.2 |
| Desolvation energy | -5.3 +/- 3.2 |
| Restraints violation energy | 1.8 +/- 0.9 |
| Buried Surface Area | 1153.9 +/- 54.1 |
| Z-Score | 0.3 |

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Cluster 8

| | |
|---|------------------|
| HADDOCK score | -59.9 +/- 7.2 |
| Cluster size | 5 |
| RMSD from the overall lowest-energy structure | 3.4 +/- 0.2 |
| Van der Waals energy | -25.2 +/- 10.2 |
| Electrostatic energy | -178.9 +/- 38.1 |
| Desolvation energy | -0.8 +/- 4.8 |
| Restraints violation energy | 18.8 +/- 14.0 |
| Buried Surface Area | 1219.6 +/- 102.7 |
| Z-Score | 0.5 |

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| Nr 1 best structure |  | Download file ▾ |
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| Nr 2 best structure |  | Download file ▾ |
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Cluster 9

| | |
|---|------------------|
| HADDOCK score | -44.7 +/- 5.8 |
| Cluster size | 4 |
| RMSD from the overall lowest-energy structure | 2.9 +/- 0.1 |
| Van der Waals energy | -23.4 +/- 3.4 |
| Electrostatic energy | -123.2 +/- 43.1 |
| Desolvation energy | 0.9 +/- 2.9 |
| Restraints violation energy | 24.5 +/- 17.6 |
| Buried Surface Area | 1110.8 +/- 108.7 |
| Z-Score | 2.4 |

| | | |
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Model Analysis ([Download all plots](#))

Cluster Analysis