



Swiss Institute of  
Bioinformatics

## SwissDock

Home

Target Database

Submit Docking

Command Line Access

Contact

Congratulation! When terminated, your docking results will be available [here](#)

### Help us improve SwissDock by telling us more about you

This survey is not mandatory. If you choose to answer it, please do it only once.

[Sign in to Google](#) to save your progress. [Learn more](#)

\* Indicates required question

What is your email address? \*

Your answer



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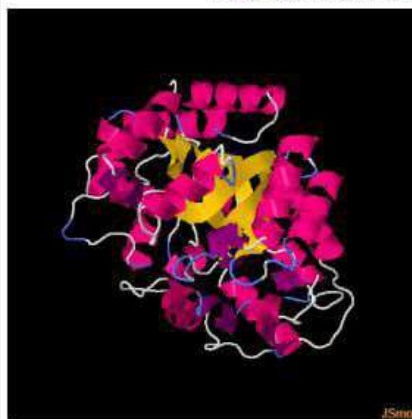
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### Predicted binding modes for your request student

This page remains accessible one week after the docking completion. [Review parameters](#)

The [SwissDock forum](#) can help you understand the docking outcome.



<input type="radio"/>	0	2	-1550.36	-11.21
<input type="radio"/>	1	3	-1519.86	-8.36
<input type="radio"/>	0	4	-1519.86	-8.36
<input type="radio"/>	0	5	-1550.32	-8.40
<input type="radio"/>	0	6	-1562.53	-6.23
<input type="radio"/>	0	7	-263.68	103.78
<input type="radio"/>	1	0	-1046.00	-10.20
<input type="radio"/>	1	1	-1538.47	-9.87
<input type="radio"/>	1	2	-1032.02	-8.73
<input type="radio"/>	1	3	-1532.91	-8.72
<input type="radio"/>	1	4	-1531.87	-8.83
<input type="radio"/>	1	5	-1531.34	-8.83
<input type="radio"/>	1	6	-1536.89	-9.74
<input type="radio"/>	1	7	-1544.73	-8.61
<input type="radio"/>	2	0	-1034.67	-8.72
<input type="radio"/>	2	1	-1634.97	-9.72
<input type="radio"/>	2	2	-1625.45	-8.80
<input type="radio"/>	2	3	-1622.80	-7.91
<input type="radio"/>	2	4	-1622.27	-7.88
<input type="radio"/>	2	5	-1622.36	-7.88
<input type="radio"/>	2	6	-1616.27	-8.37
<input type="radio"/>	2	7	-1518.21	-7.08
<input type="radio"/>	3	0	-1638.76	-8.36
<input type="radio"/>	3	1	-1526.82	-6.18

Download CSV file

If predicted binding modes are not displayed, you might suffer from a Java bug or a firewall blocking. In the meantime, please use UCSF Chimera (see below). Binding modes are scored using their FullFrees and clustered. Clusters are then ranked according to the average FullFrees of their elements (see Grottel et al., Proteins, 2007, Jun 1:87(4):1010-25).

For further inspection, you can either download predictions files, or open UCSF Chimera from your browser:



SwissDock

- \* Choose files in target selection & Ligand selection description entry is optional.
- \* Click on Start docking results will be displayed after sometime and if email id is provided the results will be mailed as well.

### Result & Discussion :-

The tool is used for docking & SWISSDOCK under SBI it is used to predict the molecular interaction that may occur between target protein & ligand. Molecule of adenosine deaminase was done.

The result will be displayed protein target. In its tertiary structure format. Alongside a list of ligands for predicted binding modes are displayed. The user can select any ligand along with parameters Number of clusters & number of elements can be selected by clicking on show option. Full fitness (energy) is indicated in KCal/mol and estimated  $\Delta G$  (free energy change) referred as shown in KCal/mol for docking interaction specified by the user. The docking score is highest negative (-ve) free energy change which is obtained as a best fit for given binding pocket.



## Docking Studies - Analysis of Substrate/Ligand Binding using Homologous Structure.

Aim:- To carryout docking studies using SWISSDOCK software tool.

### Introduction:-

SWISSDOCK a web service to predict the molecular interaction that may occur between a target protein & a small molecule. 3DB a database of manually created target & ligand structure are available. SWISSDOCK allows the user to do the following. Propose a binding mode for ligand, create, figure for your articles, generate a complex to perform subsequent calculation. Design inhibition for the target of your choice. It is based on FADOCK DSS.

Query:- Adenosine Deaminase.

URL :- [www.SWISSDOCK.ch](http://www.SWISSDOCK.ch)

### Procedure:-

- 1) Log on to [www.SWISSDOCK.ch](http://www.SWISSDOCK.ch) the homepage of SWISSDOCK & opened which is under SIB.
- 2) Click on target database select any the pair of target & ligand. Click dock download.
- 3) The files will be downloaded in zip format, next select submit docking upload.