

# deepEA installation

---

- **Step 1:** Docker installation

- i) **Docker installation and start** ([Official installation tutorial](#))

For **Windows (Only available for Windows 10 Professional and Enterprise version):**

- Download [Docker](#) for windows;
- Double click the EXE file to open it;
- Follow the wizard instruction and complete installation;
- Search docker, select **Docker for Windows** in the search results and click it.

For **Mac OS X (Test on macOS Sierra version 10.12.6 and macOS High Sierra version 10.13.3):**

- Download [Docker](#) for Mac OS;
- Double click the DMG file to open it;
- Drag the docker into Applications and complete installation;
- Start docker from Launchpad by click it.

For **Ubuntu (Test on Ubuntu 18.04 LTS):**

- Go to [Docker](#), choose your Ubuntu version, browse to **pool/stable** and choose **amd64, armhf, ppc64el or s390x**. Download the **DEB** file for the Docker version you want to install;
- Install Docker, supposing that the DEB file is download into following path: **`"/home/docker-ce-ubuntu_amd64.deb"`**

```
$ sudo dpkg -i /home/docker-ce<version-XXX>~ubuntu_amd64.deb
$ sudo apt-get install -f
```

## ii) Verify if Docker is installed correctly

Once Docker installation is completed, we can run `hello-world` image to verify if Docker is installed correctly. Open terminal in Mac OS X and Linux operating system and open CMD for Windows operating system, then type the following command:

```
$ docker run hello-world
```

**Note:** root permission is required for Linux operating system.

- Once Docker is installed successfully, you will see the following message:

```
zhaijj@subnet97-166: ~ (zsh) 1

# zhaijj @ subnet97-166 in ~ [17:18:56] C:130
$ docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
1b930d010525: Pull complete
Digest: sha256:4fe721ccc2e8dc7362278a29dc660d833570ec2682f4e4194f4ee23e415e1064
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/

# zhaijj @ subnet97-166 in ~ [17:26:12]
```

- **Step 2:** deepEA installation from Docker Hub

```
# pull latest deepEA Docker image from docker hub
$ docker pull malab/deepea
```

- **Step 3:** Launch iwa-miRNA local server

```
$ docker run -it -p 8080:8080 malab/deepea bash
$ bash /home/galaxy/run.sh
```

Then, deepea local server can be accessed via <http://localhost:8080>

Galaxy

Analyze DataWorkflowShared DataVisualizationHelpLogin or Register

Tools

search tools

PRE-ANALYSIS  
Data Preparation  
Quality Control

CORE ANALYSIS  
Identification of RNA Modifications  
Functional Annotation

ADVANCED ANALYSIS  
Multi-omics Integrative Analysis  
Prediction Analysis Based on Machine Learning

USEFUL TOOLS  
Convert Formats  
Filter and Sort  
Get Data

Workflows  
All workflows

deepEA

AboutTutorialDocker imageSource codeContact

Using 0 bytes

History

search datasets

Unnamed history  
(empty)

This history is empty. You can load your own data or get data from an external source

Test data

deepEA demo

Video tutorial

Welcome to deepEA

A Containerized Web Server for Interactive Analysis of Epitranscriptome Sequencing Data