

CRISPRpic Manual for Beginners (Mac OS)

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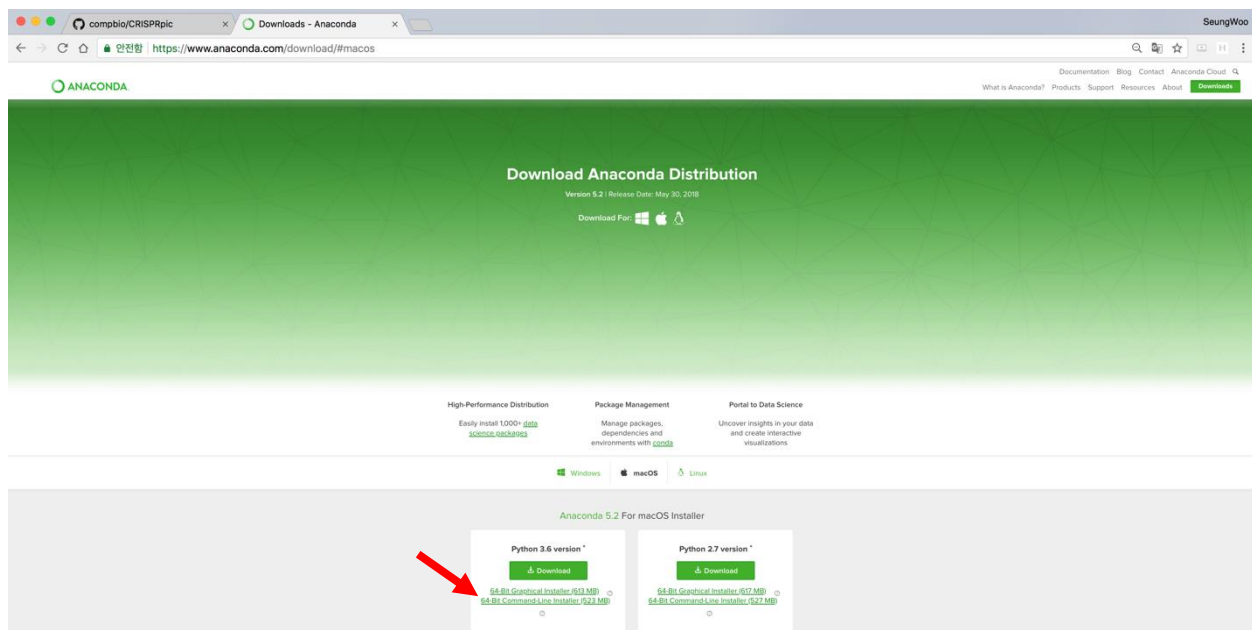
In order to run CRISPRpic, you will need the Anaconda Python. It is like a PCR-master mix, the regular Python is like a polymerase. Don't worry. It is not harmful to your computer.

1. Run Terminal App in MacOS
2. Type "Python" to check the Anaconda was installed.
3. ctrl+z to exit from Python.

```
Last login: Tue Jun 12 14:47:12 on ttys000
[DN52ehgk:~ swcho8$ python
Python 2.7.10 (default, Jul 15 2017, 17:16:57)
[GCC 4.2.1 Compatible Apple LLVM 9.0.0 (clang-900.0.31)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

This Python 2.7.10 is provided by MacOS. You will install the Anaconda.

1. <https://www.anaconda.com/download/#macos>
2. Click Python 3.6 version 64-bit command line installer



3. Open Terminal App.
4. Move to Downloads folder
5. Type "Bash Anaconda3-5.2.0-MacOSX-x86_64.sh"
6. Follow the instruction from Anaconda
7. After install, you must close and re-open the Terminal App prior to use the Anaconda.

See this page for details.

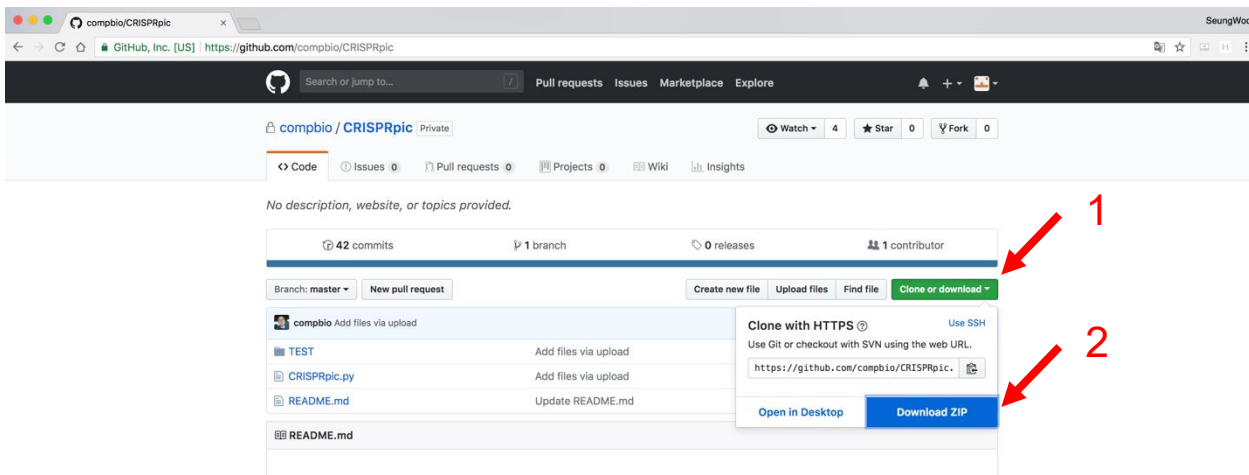
<https://docs.anaconda.com/anaconda/install/mac-os/#macos-graphical-install>

```
Last login: Wed Jun 13 09:49:26 on ttys000
[DN52ehgk:~ swcho8$ cd Downloads/
[DN52ehgk:Downloads swcho8$ bash Anaconda3-5.2.0-MacOSX-x86_64.sh █
```

8. Type "Python" to verify the Anaconda installation.

```
swcho8 — python — 80x24
Last login: Wed Jun 13 09:27:13 on ttys000
[DN52ehgk:~ swcho8$ python
Python 3.6.5 |Anaconda, Inc.| (default, Apr 26 2018, 08:42:37)
[GCC 4.2.1 Compatible Clang 4.0.1 (tags/RELEASE_401/final)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> █
```

Now, your computer is ready to run CRISPRpic.
 You can download the CRISPRpic at <https://github.com/compbio/CRISPRpic>



1. Unzip the CRISPRpic-master.zip
2. Move to CRISPRpic-master/TEST
3. Type "Python ../CRISPRpic.py -i AAVS1_input.txt -f AAVS1.out.extendedFragments.fastq -w 3"

```
TEST — -bash — 220x24
Last login: Wed Jun 13 10:13:18 on ttys000
[DN52ehgk:~ swcho8$ cd Downloads/
[DN52ehgk:Downloads swcho8$ cd CRISPRpic-master
[DN52ehgk:CRISPRpic-master swcho8$ cd TEST
[DN52ehgk:TEST swcho8$ python ../CRISPRpic.py -i AAVS1_input.txt -f AAVS1.out.extendedFragments.fastq -w 3
Initial Index Size : 8
Checking reference sequence and gRNAseqs
AAVS1
Counting reads
AAVS1
selecting amplicons
making possible mutant sequences
counting the frequency of mutations
summarizing frequencies
plotting figures
[DN52ehgk:TEST swcho8$ █
```

4. The output files will be generated in /CRISPRpic/TEST/AAVS1/