

## Guidelines for using CIAAlign

Here we want to share some tips that might help you using CIAAlign. They concern how to choose the parameters and what to do if you input a very big alignment.

However, we want to stress that your analysis depends on your MSA (size and number of gaps), the purpose of your downstream analysis and the computer you are using. Please keep in mind that we cannot make universal statements here, as it depends on your individual case.

### Tips for choosing parameters

- Which functions you want to use and with which parameters depend on your downstream analysis and on your MSA
- Playing around with different parameters and seeing the effect of them on the MSA in the markup mini alignment can help to find the ones you need
- Better to start with more conservative parameters to avoid over-cropping

### Tips for dealing with large MSAs

- If your MSA has many sequences or is very long and you want to create a sequence logo, you might not be able to create the image due to the restrictions of the python library we are using (matplotlib allows no more than  $2^{16}$  pixels in each direction). We recommend that you decrease the dpi to 200 or even 100 with the parameter `--sequence_logo_dpi`
- Generally, we recommend for very large MSAs to focus on our main functions: the cleaning and the mini alignments functions