# **Align Sequences with MUSCLE**

This workflow performs multiple sequence alignment with MUSCLE algorithm and saves the resulting alignment to Stockholm document. Source data can be of any format containing sequences or alignments.

### How to Use This Sample

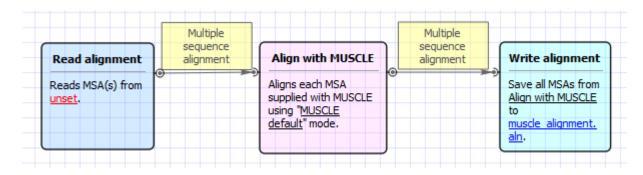
If you haven't used the workflow samples in UGENE before, look at the "How to Use Sample Workflows" section of the documentation.

### Workflow Sample Location

The workflow sample "Align Sequences with MUSCLE" can be found in the "Alignment" section of the Workflow Designer samples.

### Workflow Image

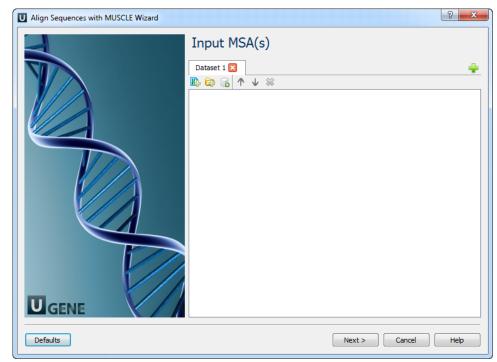
The workflow looks as follows:



#### Workflow Wizard

The wizard has 2 pages.

1. Input MSA(s): On this page you must input multiple alignments file(s).



2. Align Sequences with MUSCLE: On this page you can modify MUSCLE and output parameters.

| U Align Sequences with MUSCLE Wizard |                                                                                                  |                                                                 | ? ×         |
|--------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------|
|                                      | Align Seque<br>MUSCLE Algorithm par<br>Mode<br>Stable order<br>Max iterations<br>Region to align | ences with MUSCLE ameters MUSCLE default True 2 Whole alignment | ▼<br>▼<br>★ |
|                                      | Output File<br>Result alignment<br>Document format                                               | muscle_alignment.aln<br>clustal                                 | -           |
| Defaults                             | < Bac                                                                                            | k Apply Cancel Run                                              | Help        |

## The following parameters are available:

| Mode                | Selector of preset configurations, that give you the choice of optimizing accuracy, speed, or some compromise between the two. The default favors accuracy.                                                                 |  |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Stable order        | Do not rearrange aligned sequences (-stable switch of MUSCLE).<br>Otherwise, MUSCLE re-arranges sequences so that similar sequences are adjacent in the output file. This makes the<br>alignment easier to evaluate by eve. |  |
| Max<br>iterations   | Maximum number of iterations.                                                                                                                                                                                               |  |
| Region to<br>align  | Whole alignment or column range e.g. 1100.                                                                                                                                                                                  |  |
| Result<br>alignment | Location of output data file. If this attribute is set, slot "Location" in port will not be used.                                                                                                                           |  |
| Document<br>format  | Document format of output file.                                                                                                                                                                                             |  |