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f/2 medium with soil extract

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Roscoff Culture Collection[1]

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Roscoff Culture Collection

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Protocol status: Working
We use this protocol and it's working

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Abstract

Medium to grow phytoplankton species in particular dinoflagellates which often require soil extract.

Before start

Please refer to our general recommendations to grow cultures :

https://www.protocols.io/private/A48906DC1374AD6281495CB86A8F092F

Prepare f/2 medium

1

Protocol

NAME

f/2 medium

CREATED BY

Daniel Vaulot

PREVIEW

1.1
- Filter 1L of old seawater of at least two months on prefilter and 0.2 µm filter
- Heat seawater during 10/20 min at 100°C (pasteurisation)
- Let the water cool down
- Under laminar flow hood, , add 25 mL of Guillard's (f/2) Marine Water Enrichment Solution (Sigma-Aldrich G9903)
- Filter the medium on 0,2 µm

Guillard's (F/2) Marine Water Enrichment Solution **Merck MilliporeSigma (Sigma-Aldrich) Catalog #**G0154-500ML

1.2 See: https://ncma.bigelow.org/media/wysiwyg/Algal_recipes/NCMA_algal_medium_f_2_1.pdf

Add soil extract

2

Protocol

NAME

Soil extract for algal media

CREATED BY

Daniel Vaulot

PREVIEW

2.1 Sample 10 g of dry soil from a place that does not contain any pesticide nor pollutant and where you can be sure to be able to come back in order to always use the same soil. The

soil must be dry because the boiling step will be longer if the soil is not dry.

2.2 Add the 10 g soil to 400ml of milliQ water.

2.3 Boil during 1 hour.

2.4 Filter on 0.2 µm or first through 0.8/0.4 µm and then through 0.2µm in order not to clog the filter.

2.5 Aliquot and freeze.

2.6 Add 30 à 50ml of soil extract per 1 L of medium.