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Von Stosch (VS) enriched seawater medium solution

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Protocol status: Working

We use this protocol and it's working

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Abstract

This protocol outlines the steps required to prepare von Stosch (VS) enriched seawater medium modified according to Guiry & Cunningham (1984).

Citation

M. D. Guiry & E. M. Cunningham (1984)

. Photoperiodic and temperature responses in the reproduction of north-eastern Atlantic *Gigartina acicularis* (Rhodophyta: Gigartinales).

Phycologia.

<https://doi.org/10.2216/i0031-8884-23-3-357.1>

LINK



Protocol materials

⊗ Vitamin B12 **Fisher Scientific Catalog #68-19-9**

⊗ MilliQ water

⊗ Titriplex® III solution **Merck MilliporeSigma (Sigma-Aldrich) Catalog #1099920001**

⊗ Sodium Glycerophosphate **Catalog # S8041-100GM**

⊗ Iron(II) sulfate heptahydrate **Merck MilliporeSigma (Sigma-Aldrich) Catalog #215422**

⊗ Manganese(II) chloride tetrahydrate **Merck MilliporeSigma (Sigma-Aldrich) Catalog #M3634**

⊗ Biotin **P212121**

⊗ Thiamine HCl **P212121**

⊗ Potassium iodide

Before start

It is important to follow the order of chemicals added as shown in the protocol.



Vitamin B12 stock solution

- 1  5 mg  Vitamin B12 Fisher Scientific Catalog #68-19-9 in  500 mL
 MilliQ water

Note

The vitamin B12 stock solution has to be prepared separately to the primary solution and should be stored in the fridge.

Primary solution

- 1.1 In  4 L  MilliQ water dissolve:

- 1.2  1.86 g
 Titriplex® III solution Merck MilliporeSigma (Sigma-Aldrich) Catalog #1099920001

(Na₂-EDTA 2 H₂O)

- 1.3  21.26 g  Sodium Glycerophosphate Catalog # S8041-100GM

- 1.4  0.139 g
 Iron(II) sulfate heptahydrate Merck MilliporeSigma (Sigma-Aldrich) Catalog #215422

- 1.5  0.98 g
 Manganese(II) chloride tetrahydrate Merck MilliporeSigma (Sigma-Aldrich) Catalog #M3634

- 1.6  0.05 g  Biotin P212121

- 1.7  0.1 g  Thiamine HCl P212121

- 1.8  20 mL Vitamin B12 stock solution ( 5 mg in  500 mL  MilliQ water
 [go to step #1](#))
- 1.9  10 mg  Potassium iodide
- 1.10 Pasteurise for  02:00:00 at  99 °C

Storage

- 2 Store VS solution in Duran bottles in a cold and dark setting at  10 °C .

Equipment

Duran® laboratory bottles, with caps

NAME

Glass bottle

TYPE

Duran

BRAND

Z305197-10EA

SKU

500 ml

SPECIFICATIONS

Application

- 3 Culturing medium is created by adding  200 mL VS to  10 L sterile seawater

Note

Add VS solution to seawater only after it has cooled down.



Citations

M. D. Guiry & E. M. Cunningham. Photoperiodic and temperature responses in the reproduction of north-eastern Atlantic *Gigartina acicularis* (Rhodophyta: Gigartinales)

<https://doi.org/10.2216/i0031-8884-23-3-357.1>