A+ Media for Marine Phytoplankton

Dr. Steven Wilhelm

Abstract

Please contact Dr. Steven Wilhelm (wilhelm@utk.edu) for additional information regarding this protocol.

Modified from Wilhelm SW and CG Trick. 1995. Physiological profiles of *Synechococcus* (Cyanophyceae) in iron-limiting continuous cultures. Journal of Phycology, 31:79-85.

Citation: Dr. Steven Wilhelm A+ Media for Marine Phytoplankton. **protocols.io**
dx.doi.org/10.17504/protocols.io.ibncame
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Protocol

Part 1 - to 500 mL Water

Step 1.

Add 18 g NaCl

REAGENTS
- Sodium Chloride PubChem CID: 5234 by Contributed by users

Part 1 - to 500 mL Water

Step 2.

Add 5 g $MgSO_4*7H_2O$

REAGENTS
- Magnesium sulfate heptahydrate by Contributed by users

Part 1 - to 500 mL Water

Step 3.

Add 0.6 g KCl

REAGENTS
- Potassium chloride View by P212121

Part 1 - to 500 mL Water

Step 4.

Add 0.04 g H_3BO_3

REAGENTS

Boric acid BP1681 by Fisher Scientific

Part 1 - to 500 mL Water

Step 5.

Add 0.360 g $CaCl_2*2H_2O$

REAGENTS

Calcium Chloride by Contributed by users

Part 2 - to 500 mL Water

Step 6.

Add 0.03 g Na_2EDTA

REAGENTS

EDTA Disodium Salt PubChem CID: 8759 by Contributed by users

Part 2 - to 500 mL Water

Step 7.

Add 0.05 g KH_2PO_4

REAGENTS

Potassium phosphate (monobasic) View by P212121

Part 2 - to 500 mL Water

Step 8.

Add 1.0 g $NaNO_3$

REAGENTS

Sodium nitrate View by P212121

Part 2 - to 500 mL Water

Step 9.

Add 1 mL $FeCl_3$ (3.89 g/L in 0.1 N HCl stock)

REAGENTS

Iron(III) chloride hexahydrate 44944 by Sigma Aldrich

Part 2 - to 500 mL Water

Step 10.

Add 8.3 mL Tris (1 M stock at pH = 7.8)

REAGENTS

- Tris by Contributed by users

Step 11.

Autoclave separately and combine for 1 L media

Step 12.

Add 0.1 mL vitamin solution once media is cooled

For vitamin solution add:

Thiamine (100 mg/mL), Vitamin B_{12} (2 mg/mL) and Biotin (1 mg/mL)

Filter sterilize (0.2 µm) prior to media addition