SN Maintenance Medium for Synechococcus

JB Waterbury & JM Willey

Abstract

Reference:
JB Waterbury & JM Willey. Isolation and growth of marine planktonic cyanobacteria. 1988. Methods in Enzymology 167: 100-105.

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Guidelines

Reference:
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Formulation:

Stock Solution	Amount	Final Concentration
EDTA, disodium salt, 1g/L	5.57 ml	15 µM
K_2HPO_4, anhydrous, 6.1g/L	2.57 ml	90 µM
$NaNO_3$, 30%	2.57 ml	9 mM
$Na_2CO_3 \cdot H_2O$, 4g/L	2.65 ml	100 µM
CTMM[1]	1.00 ml	
Vit. B12, 10mg/ml	0.10 ml	1 µg/L
Seawater	750 ml	75%
DDH_2O	250 ml	25%

[1] CTMM contains 1.17 µM Na_2EDTA, 8 nM Zn, 5 nM Co, 90 nM Mn, 3 nM Mo, 10 nM Se, 10 nM Ni and 1.17 µM Fe

Note:
Some *Synechococcus* do not grow well in nitrate containing medium and NH_4^+ can be substituted for NO_3^- as a source of nitrogen (try using 250-500 µM NH_4Cl)

Protocol

Step 1.
Mix seawater and double distilled water

Step 2.
Autoclave 30-35 min.

DURATION

00:35:00

Step 3.

Prepare stock solution following formulation in guidelines

Step 4.

Prepare stock solutions and 0.2 µm filter them

Step 5.

Aseptically add each stock solution to seawater, mixing after each addition

Step 6.

Store in the dark

NOTES

VERVE Team 01 Jul 2015

Vit. B12 degrades in the light.