

K minimum

Marine dinoflagellates

Stocks

per 200 ml

(1) NaNO ₃ (Use f/2 stock 1)	15 g
(2) NaH ₂ PO ₄ .2H ₂ O (Use f/2 stock 2)	1.13 g
(3) Na ₂ SeO ₃	0.004 g
(4) Trace elements:	
Na ₂ EDTA	8.72 g
FeCl ₃ .6H ₂ O	6.30 g
ZnSO ₄ .7H ₂ O	0.044 g
CoCl ₂ .6H ₂ O	0.02 g
MnCl ₂ .4H ₂ O	0.36 g
Na ₂ MoO ₄ .2H ₂ O	0.012 g

(5) Vitamin mix: (Use f/2 stock 4)

per litre

Cyanocobalamin (Vitamin B ₁₂)	0.0005 g
Biotin	0.0005 g
Thiamine HCl (Vitamin B ₁)	0.1g

For ease of measuring, first prepare primary stock solutions and divide into 1ml aliquots to be frozen for later use.

Component	Primary Stock solution	Quantity	Molar Concentration in final medium
Thiamine HCl (B ₁)	-	100mg	2.96×10^{-7}
Biotin	0.1g L ⁻¹ dH ₂ O	5ml	2.05×10^{-9}
Cyanocobalamin (B ₁₂)	0.1g L ⁻¹ dH ₂ O	5ml	3.69×10^{-10}

Medium

per litre

Stock solution 1	1 ml
Stock solution 2	1 ml
Stock solution 3	0.1 ml
Stock solution 4 (Trace elements)	0.1 ml
Stock solution 5 (Vitamin mix)	1.0 ml

Make up to 1 litre with filtered natural seawater. Adjust pH to **8.0** with 1M NaOH or 1M HCl prior to autoclaving. Autoclave at 15 psi for 15 minutes.

 Culture Collection of algae & protozoa	QF 09 Media Preparation Recipe Template	Revision: 001 Approved: 30APR20
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Reference

Leftley JW after Keller DK, Selvin RC, Claus W & Guillard RRL (1987) Media for the culture of oceanic ultraphytoplankton. J. Phycol. 23, 633-638. – adapted for CCAP

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