

K Medium

Stocks

	per 100 ml
(1) NaNO ₃ (Use f/2 stock 1)	7.5 g
(2) NH ₄ Cl	0.267 g
(3) Na ₂ β-glycerophosphate	0.216 g
(4) H ₂ SeO ₃	0.0129 g
(5) CuSO ₄ .5H ₂ O	0.025 g
(6) Tris-base (7.2 pH)	12.11 g
First, add to 50 ml of deionised water and pH to 7.2 with 2M HCl. Then, slowly top up to 100 ml with deionised water ensuring to check pH remains at 7.2.	
(7) Trace elements:	per 200 ml
Na ₂ EDTA	8.32 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
(8) 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 solutions 1 - 3	1.0 ml each
Stock solution 4 - 5	0.01 ml
Stock solution 6 (Tris-base 7.2 pH)	1.0 ml
Stock solution 7 (Trace elements)	0.1 ml
Stock solution 8 (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. Autoclave at 15 psi for 15 minutes.

Reference

Maureen D. Keller; Rhonda C. Selvin; Wolfgang Claus; Robert R. L. Guillard (1987). MEDIA FOR THE CULTURE OF OCEANIC ULTRAPHYTOPLANKTON. , 23(4), 633–638. – adapted for CCAP

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