

## L1 Medium

(Marine dinoflagellates)

**Stocks** (1) Trace elements (from CCMP) **per litre**

Quantity	Compound	Stock Solution	Molar Concentration in Final Medium
3.15 g	FeCl <sub>3</sub> · 6H <sub>2</sub> O	-	1.17 × 10 <sup>-5</sup> M
4.36 g	Na <sub>2</sub> EDTA · 2H <sub>2</sub> O	-	1.17 × 10 <sup>-5</sup> M
0.25 mL	CuSO <sub>4</sub> · 5H <sub>2</sub> O	2.45 g/L dH <sub>2</sub> O	1 × 10 <sup>-8</sup> M
3 mL	Na <sub>2</sub> MoO <sub>4</sub> · 2H <sub>2</sub> O	19.9 g/L dH <sub>2</sub> O	9 × 10 <sup>-8</sup> M
1 mL	ZnSO <sub>4</sub> · 7H <sub>2</sub> O	22 g/L dH <sub>2</sub> O	8 × 10 <sup>-8</sup> M
1 mL	CoCl <sub>2</sub> · 6H <sub>2</sub> O	10 g/L dH <sub>2</sub> O	5 × 10 <sup>-8</sup> M
1 mL	MnCl <sub>2</sub> · 4 H <sub>2</sub> O	180 g/L dH <sub>2</sub> O	9 × 10 <sup>-7</sup> M
1 mL	H <sub>2</sub> SeO <sub>3</sub>	1.3 g/L dH <sub>2</sub> O	1 × 10 <sup>-8</sup> M
1 mL	NiSO <sub>4</sub> · 6H <sub>2</sub> O	2.7 g/L dH <sub>2</sub> O	1 × 10 <sup>-8</sup> M
1 mL	Na <sub>3</sub> VO <sub>4</sub>	1.84 g/L dH <sub>2</sub> O	1 × 10 <sup>-8</sup> M
1 mL	K <sub>2</sub> CrO <sub>4</sub>	1.94 g/L dH <sub>2</sub> O	1 × 10 <sup>-9</sup> M

(2) Vitamin mix

Cyanocobalamin (Vitamin B <sub>12</sub> )	0.0005 g
Thiamine HCl (Vitamin B <sub>1</sub> )	0.1 g
Biotin	0.0005 g

**Medium** **per litre**

NaNO <sub>3</sub>	0.075 g
NaH <sub>2</sub> PO <sub>4</sub> · 2H <sub>2</sub> O	0.00565 g
Trace elements stock solution (1)	1.0 ml
Vitamin mix stock solution (2)	1.0 ml

Make up to 1 litre with filtered natural seawater. Adjust pH to 8.0 with 1M NaOH or HCl. Sterilise by autoclaving for 15 minutes at 15 psi and use when cooled to room temperature.

### Reference

Guillard and Hargraves (1993)

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