

LDM Medium Recipe

Directions

Modification of Lewin's marine diatom medium.

For 1 L Total

1. To approximately 950 mL of pasteurized seawater (30 ppt), add each of the components in the order specified (except vitamins) while stirring continuously.

2. Bring total volume to 1 L with non-pasteurized seawater.

*For 1.5% agar medium add 12 g of agar into the flask; do not mix.

3. Cover and autoclave medium.

4. When cooled add sterile vitamins.

*For agar medium add vitamins, mix, and dispense before agar solidifies.

5. Store at refrigerator temperature.

#	Component	Amount	Stock Solution Concentration	Final Concentration
1	Pasteurized Seawater	950 mL		
2	NaNO ₃ (Fisher BP360-500)	1 mL/L	10 g/400mL dH ₂ O	0.29 mM
3	CaCl ₂ ·2H ₂ O (Sigma C-3881)	1 mL/L	1 g/400mL dH ₂ O	0.017 mM
4	MgSO ₄ ·7H ₂ O (Sigma 230391)	1 mL/L	3 g/400mL dH ₂ O	0.03 mM
5	K ₂ HPO ₄ (Sigma P 3786)	1 mL/L	3 g/400mL dH ₂ O	0.043 mM
6	KH ₂ PO ₄ (Sigma P 0662)	1 mL/L	7 g/400mL dH ₂ O	0.129 mM
7	NaCl (Fisher S271-500)	1 mL/L	1 g/400mL dH ₂ O	0.043 mM
8	P-IV Metal Solution	6 mL/L		
9	Tryptone (Sigma T 9410))	1 g/L		
10	Vitamin B₁₂	1 mL/L		
11	Biotin Vitamin Solution	1 mL/L		