

MBL Medium

Reference: Nichols, H. W. (1973) in *Handbook of Phycological Methods*, Ed. J. R. Stein, pp. 16-17. Cambridge University Press.

Online source:

<http://www.marine.csiro.au/microalgae/methods/Media%20CMARC%20recipes.htm#MBL>

Adapted by the CSIRO for freshwater algae

Stock solutions	Per litre distilled water	
1. CaCl ₂ .2H ₂ O	36.76 g	
2. MgSO ₄ .7H ₂ O	36.97 g	
3. NaHCO ₃	12.60 g	
4. K ₂ HPO ₄	8.71 g	
5. NaNO ₃	85.01 g	
6. Na ₂ SiO ₃ .9H ₂ O	28.42 g	
7. Na ₂ EDTA	4.36 g	
8. FeCl ₃ .6H ₂ O	3.15 g	
9. Metal Mix		Add each constituent separately to ~750mL of distilled H ₂ O, fully dissolving between additions. Finally make up to 1L with distilled H ₂ O.
CuSO ₄ .5H ₂ O	0.01 g	
ZnSO ₄ .7H ₂ O	0.022 g	
CoCl ₂ .6H ₂ O	0.01 g	
MnCl ₂ .4H ₂ O	0.18 g	
Na ₂ MoO ₄ .2H ₂ O	0.006 g	
10. Vitamin stock		
Cyanocobalamin (Vitamin B12)	0.0005 g / L dH ₂ O	
Thiamine HCl (Vitamin B1)	0.10 g / L dH ₂ O	
Biotin	0.0005 g / L dH ₂ O	
11. Tris stock	250.0 g / L dH ₂ O	

Store all stock solutions in the refrigerator.

To Prepare MBL Medium

Add 1mL of each stock solution (1 – 11) to 1litre distilled water.

(For species which cannot use nitrate substitute 1mL of NH₄Cl made up to 5.4 g /L H₂O)

Adjust pH to 7.2 with HCl.

Autoclave at 121°C (15PSI for 15 mins).