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Marine Purity Broth

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Protocol status: Working

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Abstract

Purpose: To test axenic cultures for purity

Guidelines

Formulation:

17 g	BD Difco AC Broth
20 g	NaCl
Qs to 1 L with distilled H ₂ O	

After broth has cooled:

2 M MgSO ₄	(2 M MgSO ₄ ·7H ₂ O = 49.3 g/100 ml H ₂ O, dissolve and 0.2 μm filter)
1 M CaCl ₂	(1 M CaCl ₂ ·2H ₂ O = 14.7 g/100 ml H ₂ O, dissolve and 0.2 μm filter)

Bertillon et al. 2003 Limnol Oceanogr 48(5): 1721-1731



- 1 Autoclave BD Difco AC Broth and NaCl Qs to 1 L with distilled water for 20 min.

00:20:00

Note

See formulation in guidelines.

- 2 After broth has cooled, add 16 ml 2 M MgSO_4 and 10 ml 1 M CaCl_2

Note

(2 M $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ = 49.3 g/100 ml H_2O , dissolve and 0.2 μm filter)

Note

(1 M $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$ = 14.7 g/100 ml H_2O , dissolve and 0.2 μm filter)

- 3 Dispense 2.0 or 4.5 ml per sterile tube
- 4 Inoculate sterile MPB with 1:5 (vol:vol) dilution of culture
- 5 Incubate at 22°C

Note

Heterotrophs normally grow in less than 2 days. No growth in the broth after 1-2 weeks indicates culture is axenic.