Marine Purity Broth

Bertillson et al.

Abstract

Purpose: To test axenic cultures for purity

Citation: Bertillson et al. Marine Purity Broth. **protocols.io**
dx.doi.org/10.17504/protocols.io.dcm2u5
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Guidelines

Formulation:

17 g BD Difco AC Broth
20 g NaCl
Qs to 1 L with distilled H_2O

After broth has cooled:

2 M $MgSO_4$ (2 M $MgSO_4 \cdot 7H_2O$ = 49.3 g/100 ml H_2O, dissolve and 0.2 µm filter)
1 M $CaCl_2$ (1 M $CaCl_2 \cdot 2H_2O$ = 14.7 g/100 ml H_2O, dissolve and 0.2 µm filter)

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

Protocol

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

DURATION
00:20:00

NOTES
VERVE Team 12 Aug 2015
See formulation in guidelines.

Step 2.
After broth has cooled, add 16 ml 2 M $MgSO_4$ and 10 ml 1 M $CaCl_2$

NOTES
VERVE Team 12 Aug 2015
(2 M $MgSO_4 \cdot 7H_2O$ = 49.3 g/100 ml H_2O, dissolve and 0.2 µm filter)
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(1 M $CaCl_2 \cdot 2H_2O$ = 14.7 g/100 ml H_2O, dissolve and 0.2 µm filter)

Step 3.
Dispense 2.0 or 4.5 ml per sterile tube

Step 4.
Inoculate sterile MPB with 1:5 (vol:vol) dilution of culture

Step 5.
Incubate at 22°C

NOTES

VERVE Team 10 Jul 2015
Heterotrophs normally grow in less than 2 days. No growth in the broth after 1-2 weeks indicates culture is axenic.