BG11 Agar

Medium used for the cultivation and enumeration of algae and protozoa.

• CONTENTS (Liter)

Sodium Nitrate	1.5 g
Dipotassium Hydrogen Phosphate	0.0314 g
Magnesium Sulfate	0.036 g
Calcium Chloride Dihydrate	0.0367 g
Sodium Carbonate	0.02 g
Disodium Magnesium EDTA	0.001 g
Citric Acid	0.0056 g
Ferric Ammonium Citrate	0.006 g
Boric Acid	0.00286 g
Manganese Chloride	0.00181 g
Zinc Sulfate	0.000222 g
Sodium Molybdate	0.00039 g
Copper Sulfate	0.000079 g
Cobalt Nitrate	0.000049 g
Agar	15.0 g
Final pH = 7.1 ± 0.2 at 25°C	

• PROCEDURE

Suspend 16.64 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. It is recommended to adjust pH with 1 M NaOH or HCl if it does not achieve 7.1. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes. For marine species, make as solution of 10 g/L sodium chloride and 1 g/L Vitamin B12. Add 20 ml of this solution (sterile filtered) to 1 L of BG11 Agar.

• INTERPRETATION

BG11 Agar is a medium used for the cultivation and enumeration of algae and protozoa. Sodium nitrate serves as the source of nitrogen. Dipotassium hydrogen phosphate is the buffering agent. Magnesium sulfate and calcium chloride dihydrate are sources of ions to stimulate the growth of microorganisms. Sodium carbonate, disodium magnesium EDTA, boric acid, Manganese chloride, zinc sulfate, sodium molybdate, copper sulfate and cobalt nitrate provide the essential electrolytes and minerals. Citric acid acts as metabolic intermediate. Ferric ammonium citrate is an indicator of sulfate reduction. Agar is the solidifying agent.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 20 - 25°C for 1 week under light intensity of 2000 - 3000 lux, 150rpm. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium
Appearance: free-flowing, homogeneous
Color: light beige
Prepared medium
Appearance: slightly opalescent with precipitates
Color: light amber
Incubation conditions: 20 - 25°C / 1 week under light intensity of 2000 - 3000 lux, 150rpm

Microorganism	ATCC	Inoculum CFU	Growth
Chlorella vulgaris	30821	50-100	good

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

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3. C. Lehel, et al, J. Biol. Chem. 268, 1799 (1993)
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6. R.Y. Stanier,R. Kunisawa,M. Mandel, & Cohen-Bazire,G. Bacteriol.Rev. 35: 171-205 (1971).
7. ATCC Catalogue of Bacteria & Bacteriophages 18th edition, 1992.

• PACKAGE

Cat. No : MB-B0871 BG11 Agar	500 G

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