

Actinomycete Isolation Broth

Medium used for the isolation *Actinomycetes* spp. from soil and water.

• CONTENTS (Liter)

Sodium Caseinate	2.0 g
Asparagine	0.1 g
Sodium Propionate	4.0 g
Dipotassium Phosphate	0.5 g
Magnesium Sulfate	0.1 g
Ferrous Sulfate	0.001 g
Final pH = 8.1 ± 0.2 at 25°C.	

• PROCEDURE

Suspend 6.7 G of powder in 1 L of distilled or deionized water. Add 5 mL of Glycerol supplement (MB-G1821). Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45-50°C in water bath. Dispense in tubes.

• INTERPRETATION

Actinomycete Isolation Broth is a medium used for isolating and cultivating *Actinomycetes* spp. from soil and water. Sodium caseinate provides nitrogen source. Asparagine acts an amino acid and a source of nitrogen. Sodium propionate is used as a substrate in anaerobic fermentation. Dipotassium phosphate is buffering agents. Magnesium sulfate and ferrous sulfate provide metallic ions. Glycerol serves as an additional source of carbon.

• TECHNIC

Inoculate the specimen with stab using a sterile needle to the medium. Shake gently for spreading microorganism. Incubate at 30 ± 2°C for up to 72 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: light beige.

Prepared medium

Appearance: opalescent.

Color: medium amber.

Incubation conditions: 30 ± 2°C / up to 72 hours

Microorganism	ATCC	Inoculum CFU	Growth
<i>Streptomyces achromogenes</i>	12767	50-100	good
<i>Streptomyces albus</i>	3004	50-100	good
<i>Streptomyces lavendulae</i>	8664	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 or until signs of deterioration or contamination are evident. Store prepared medium at 2-8°C.

• REFERENCES

1. Clesceri, Greenberg and Eaton (ed.). 1998. Standard methods for the examination of water and wastewater, 20th ed. American Public Health Association, Washington, D.C.
2. Lechevalier. 1975. Actinomycetes of sewage-treatment plants. Environ. Protection Technol. Ser., EPA-600/2-75-031, U. S. Environmental Protection Agency, Cincinnati, Ohio.
3. Lechevalier and Lechevalier. 1974. Int. J. Syst. Bacteriol. 24:278.
4. Olsen. 1960. Personal communication.

• PACKAGE

Cat. No : MB-A0690 Actinomycete Isolation Broth	500 G
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• MICROBIAL CULTURE IMAGES



Incubation conditions : 35±2°C 72h