

# Actinomycete Isolation Agar



Medium used for the isolation of *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
Agar	15.0 g
Final pH = 8.1 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 21.7 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. Pour into petri dishes.

## • INTERPRETATION

Actinomycete Isolation Agar is a medium used for isolation and cultivation Actinomycetes 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 plates with spreading the specimen on surface of the medium using a sterile loop. 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: light amber

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

Microorganism	ATCC	Inoculum CFU	Growth
<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-600/275-031, 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-A0611 Actinomycete Isolation Agar	500 G
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*Streptomyces albus* ATCC 3004 (100CFU)



*Candida albicans* ATCC 10231 (100CFU)

Incubation conditions : 35±2°C 72h