Actinomycetes Isolation Agar

Intended Use
Actinomycetes Isolation Agar is used for isolation and propagation of *Actinomycetes* from soil and water.

Summary
Actinomycetes are Gram-positive, acid-fast cells, which show marked chemical and morphological diversity in growth ranging from coccoid and pleomorphic forms to branched filaments (e.g. Aerobic *Actinomycetes*, include the genera *Nocardia, Streptomyces, Actinomadura, Nocardiopsis, Rhodococcus* and *Dermatophilus*). Actinomycetes Isolation Agar, formulated by Olsen, is used for isolation and propagation of *Actinomycetes* from soil and water

Principle
Actinomycetes Isolation Agar contains sodium caseinate as nitrogen source. Asparagine in addition to being an amino acid is also a source of nitrogen. Sodium propionate is used as a substrate in anaerobic fermentation. Dipotassium phosphate provides the buffering system. Sulphate serves as source of sulphur and metallic ions. Glycerol serves as an additional source of carbon.

Formula*

Ingredients	g/L
Sodium Caseinate	2.0
L-Asparagine	0.1
Sodium Propionate	4.0
Dipotassium Phosphate	0.5
Magnesium Sulphate	0.1
Ferrous Sulphate	0.001
Agar	15.0
Final pH (at 25°C)	8.1 ± 0.2

*Adjusted to suit performance parameters

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen
Soil and Water samples

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 21.70 g of the powder in 1000 mL purified / distilled water containing 5 mL glycerol.
2. Heat to boiling to dissolve the powder completely.
3. Dispense as desired. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control
Dehydrated Appearance: Cream to yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Yellow to light amber coloured, very slightly opalescent gel forms in petridishes.

Cultural Response: Cultural characteristics observed after an incubation for 40-72 hours at 35-37°C..

Organisms (ATCC)	Growth
Nocardia asteroides (19247)	Good
Escherichia coli (25922)	Inhibited
Streptomyces albus subsp. *albus* (3004)	Good
Streptomyces lavendulae (55330)	Good

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Clesceri, Greenberg & Eaton (Ed.), 1998. Standard methods for the examination of water & wastewater, 20th Ed. American Public Health Association, Washington, D.C.
2. Lechevalier, 1975. Actinomycetes of sewage-treatment plants. E.P. Technol. Ser., EPA-600/2-75-031, U. S. Lechevalier and Lechevalier, 1974. Int. J. Syst. Bacteriol. 24:278.
3. Olsen, 1960. Personal communication.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201010020100	Dehydrated Culture Media	100 g
201010020500	Dehydrated Culture Media	500 g