

TM 1133 – ACTINOMYCES AGAR

INTENDED USE

For cultivation and maintenance of anaerobic Actinomyces species.

PRODUCT SUMMARY AND EXPLANATION

Actinomyces are gram-positive bacteria, which show marked chemical and morphological diversity but form a distinct evolutionary line of organisms that range from coccoid and pleomorphic forms to branched filaments. *Actinomyces* form an integral part of soil, water and vegetation. *Actinomyces* development leads to the formation of volatile metabolites. Traces of these volatile metabolites are sufficient to impart disagreeable odour to water or a muddy flavour to fish. *Actinomyces* also cause disruptions in wastewater treatment by forming massive growths, which are capable of producing thick foam in the activated sludge process. Actinomyces Agar is further modified and is recommended for the cultivation and maintenance of anaerobic *Actinomyces* species.

COMPOSITION

Ingredients	Gms / Ltr
Beef heart infusion solids	10.000
Tryptose	10.000
Tryptone	4.000
Yeast extract	5.000
Dextrose (Glucose)	5.000
L-Cysteine hydrochloride	1.000
Starch, soluble	1.000
Sodium chloride	5.000
Potassium dihydrogen phosphate	15.000
Ammonium sulphate	1.000
Magnesium sulphate	0.200
Calcium chloride anhydrous	0.020
Agar	20.000

PRINCIPLE

The medium contains beef heart infusion solids B, tryptose, tryptone, yeast extract, starch and dextrose act as sources of carbon, nitrogen, sulphur, vitamins and other growth factors. The metallic salts provide essential electrolytes and minerals.

INSTRUCTION FOR USE

- Dissolve 77.22 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely. Distribute into tubes or flasks.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow to light amber coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 6.9±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Actinomyces israelii</i>	10049	10-100	Luxuriant	≥70%	25-30°C	40-72 Hours
<i>Streptomyces achromogenes</i>	12767	50-100	Good	40-50%	25-30°C	40-72 Hours
<i>Streptomyces albus subsp albus</i>	3004	50-100	Good	40-50%	25-30°C	40-72 Hours
<i>Streptomyces lavendulae</i>	8664	50-100	Good	40-50%	25-30°C	40-72 Hours
<i>Actinomyces bovis</i>	13683	10-100	Good	40-50%	25-30°C	40-72 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- Adams B. A., 1929, Water and Water Eng., 31:327.
- Ajello L., Georg L. K., Kaplan W. and Kaufman L., 1963, CDC Lab Manual Med. Mycology, PHS Publication No. 994, CDC, Washington D.C.
- Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.
- Lechevalier H. A., 1975, Environ. Protection Technol. Ser., EPA-600/ 2-75-031, U. S. Environmental Protection Agency, Cincinnati, Ohio.
- Lechevalier M. P., and Lechevalier H. A., 1974, Int. J. Syst.Bacteriol., 24:278.



 Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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