

Technical Information

Ammonium Phosphate Agar

Product Code: DM 1235

Application: - Ammonium Phosphate Agar is recommended for isolating microorganisms that can use ammonium phosphate as source of nitrogen. It is particularly used in differentiating Micrococci from Staphylococci

Composition**

Ingredients	Gms / Litre
Ammonium phosphate	1.000
Dextrose	10.000
Potassium chloride	0.200
Magnesium sulphate	0.200
Bromo cresol purple	0.050
Agar	15.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Staphylococci are generally found as commensal on the skin and mucous membranes of human's beings and other animals. On the other hand micrococci are found in the environment and as transient members of the microflora on the skin of humans and other mammals (1). Hucher (2) formulated Ammonium Phosphate Agar for detecting microorganisms that can utilize ammonium phosphate as a source of nitrogen. This medium is particularly useful for the differentiation of Micrococci from Staphylococci. Dextrose upon fermentation produces acid, which is indicated by the colour change of the bromocresol purple indicator to yellow. Free living, non pathogenic, saprophytic or facultatively parasitic Micrococci utilize dextrose and ammonium phosphate present in the medium. Potassium chloride and magnesium sulphate provide necessary salts for the growth of microorganisms.

Methodology

Suspend 26.45 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boil to dissolve the medium completely. Dispense in tubes and sterilize by autoclaving at 118-121°C for 10 minutes. Allow the tubes to cool in slanted position.

Quality Control

Physical Appearance

Light yellow to light purple homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Purple coloured clear to slightly opalescent gel forms in tubes as slants

Reaction

Reaction of 2.65% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH Range:- 6.80-7.20

Cultural Response/Characteristics

DM 1235: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth	Recovery
<i>Micrococcus luteus</i> ATCC 10240	50-100	luxuriant	yellow
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant	purple

Storage and Shelf Life

Dried media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8^o in sealable plastic bags for 2-5 days.

Further Reading

1. Koneman E. W., Allen S. D., Janda M. W., Schreckenberger C. P., Winn C. W., (Eds), Colour Atlas and Textbook of Diagnostic Microbiology, 4th Edition, J. B. Lippincott Company.
2. Hucher, 1924, New York State Exp. Sta. Tech. Bull., 100:36.

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