



Ammonium Phosphate Agar

M235

Ammonium Phosphate Agar is recommended for detecting microorganisms that can use ammonium phosphate as source of nitrogen.

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

Directions

Suspend 26.45 grams in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Dispense in tubes and sterilize by autoclaving at 118-121°C (12-15 lbs pressure) for 10 minutes. Allow the tubes to cool in slanted position.

Principle And Interpretation

Staphylococci are generally found on the skin and mucous membranes of humans and other animals. Micrococci are found in the environment and as transient members of the microflora on the skin of humans and other mammals (1). Ammonium Phosphate Agar was formulated by Hucher (2) for detecting microorganisms that can utilize ammonium phosphate as a source of nitrogen. This medium is particularly useful during 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.

Quality Control

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

6.80-7.20

Cultural Response

M235: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

| Organism | Inoculum (CFU) | Growth | Colour of slant |
|---|----------------|-----------|-----------------|
| Cultural Response | | | |
| <i>Micrococcus luteus</i> ATCC 10240 | 50-100 | luxuriant | yellow |
| <i>Staphylococcus aureus</i> ATCC 25923 | 50-100 | luxuriant | purple |

Storage and Shelf Life

Please refer disclaimer Overleaf.

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

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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