

Technical Information

Nutrient Agar 1.5%

Product Code : DM1087

Application: Nutrient Agar 1.5% is a general purpose nutrient medium which can be used for cultivation of bacteria not requiring a highly nutritious medium. The medium can also be enriched with blood, ascetic fluid or other enriching fluid.

Composition**

Ingredients	Gms / Litre
Beef extract	3.000
Peptic digest of animal tissue	5.000
Sodium chloride	8.000
Agar	15.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Nutrient Agar 1.5% is the modification of Nutrient Agar recommended by APHA for cultivation and maintenance of non-fastidious microorganisms⁽¹⁾. This medium is used as a general- purpose medium. Recently ISO Committee with slight modification⁽²⁾ has also recommended this media for subcultivation of *Pseudomonas* species isolated from meat and meat products.

Peptic digest of animal tissue is the principal source of organic nitrogen while beef extract provides carbohydrates, vitamins, organic nitrogen compounds and salts. Nutrient Agar 1.5% may be used for blood culturing work after the addition of sterile 5-10% v/v defibrinated blood. Sodium chloride makes the medium isotonic preventing haemolysis of red blood corpuscles.

Methodology

Suspend 31 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. If desired it can be appropriately enriched as per need by adding sterile blood, ascetic fluid or serum after cooling medium base to 45-50°C. Mixed well and dispense as desired and use accordingly.

Quality Control

Physical Appearance

Cream to yellow coloured homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Yellow coloured clear gel forms in Petri plates. With the addition of blood, cherry red coloured, opaque gel forms in Petri plates.

Reaction

Reaction of 3.1% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH Range 7.10-7.50

Cultural Response/ characteristics

DM 1087: Cultural characteristics observed after an incubation at 35-37°C for 18 - 24 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Escherichia coli ATCC 25922	50-100	luxuriant	>=70%
Pseudomonas aeruginosa ATCC 27853	50-100	luxuriant	>=70%
Staphylococcus aureus ATCC 25923	50-100	luxuriant	>=70%



Dehydrated Culture Media
Bases / Media Supplements

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° in sealable plastic bags for 2-5 days.

Further Reading

1. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.

2. International Organization for Standardization (ISO), 1995, Draft ISO/DIS 9308-1

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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