Nutrient Agar 1.5% M087

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 fluids.

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

Directions

Suspend 31 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. If desired, it can be appropriately enriched with sterile blood, ascitic fluid or serum after cooling to 45-50°C. Mix well and dispense as desired.

Principle And 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 (2) has also recommended it with slight modification 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.

Quality Control

Appearance

Cream to yellow 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

Cultural Response

M087: 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%			

Reference

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.

Storage and Shelf Life

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