



M-Nutrient Broth

M1126

M-Nutrient Broth is recommended for enumeration of bacteria using membrane filter technique.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	40.000
Yeast extract	6.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 46 grams in 1000 ml distilled water. Heat if necessary to ensure complete solution. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

M-Nutrient Broth is used for enumeration of non-fastidious bacteria using membrane filtration technique. The medium was originally developed as Nutrient Broth as is mentioned in Standard Methods for Examination of Water and Waste Water (1).

This medium has relatively simple formulation with high amount of peptic digest of animal tissue and low amount of yeast extract. These nutrients support the growth of non-fastidious microorganisms and thus enables the user to enumerate and cultivate the bacteria in any liquid materials using membrane filtration technique (2). Sterile cotton absorbent pads are saturated with about 2 ml M-Nutrient Broth. Sterile membrane filters used for filtering water samples are aseptically placed on the saturated cotton absorbent pads. These are then incubated at 35-37°C for a period of 18-48 hours.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured clear solution without any precipitate

Reaction

Reaction of 4.6% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH

7.00-7.40

Cultural Response

M1126: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth
Cultural Response		
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant
<i>Enterococcus faecalis</i> ATCC 29212	50-100	luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant
<i>Staphylococcus epidermidis</i> ATCC 12228	50-100	luxuriant

Storage and Shelf Life

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. Eaton A. D., Clesceri L. S. and Greenberg A. E., (Ed.), 1995, Standard Methods for the Examination of water and Wastewater, 19th Ed., American Public Health Association, Washington, D.C.
2. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore

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