



Nutrient Broth Medium

MM244

Nutrient Broth Medium is used as a sterility-testing medium in accordance with Indian Pharmacopoeia, Third Edition.

Composition**

Ingredients	Gms / Litre
Peptone	10.000
Beef extract	10.000
Sodium chloride	5.000
pH after sterilization	7.3±0.1

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 25 grams in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Sterilise by autoclaving at 10 lbs pressure (115°C) for 30 minutes or alternatively at 15lbs pressure(121°C) for 15 minutes or as per validated cycle

Principle And Interpretation

Nutrient Broth Medium is a general purpose medium used for the examination of water and dairy products according to Standard Methods for the Examination of Water and Wastewater (1) and Dairy Products (2) in accordance with IP (4). It can also be used for cultivating several less fastidious microorganisms.

Beef extract and peptone provide the necessary nitrogen compounds, carbon, vitamins and also some trace ingredients to the non-fastidious organisms. Sodium chloride maintains osmotic equilibrium of the medium.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured clear solution.

pH

7.20-7.40

Growth Promotion Test

Growth promotion is carried out as per Indian Pharmacopoeia

Cultural Response

MM244: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
Cultural Response		
<i>Escherichia coli</i> ATCC 8739	50-100	luxuriant
<i>Escherichia coli</i> NCTC 9002	50-100	luxuriant
<i>Salmonella</i> Typhimurium ATCC 14028	50-100	luxuriant
<i>Salmonella</i> Abony NCTC 6017	50-100	luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 9027	50-100	luxuriant
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	luxuriant

<i>Enterobacter aerogenes</i> ATCC 13048	50-100	luxuriant
<i>Klebsiella pneumoniae</i> ATCC 13883	50-100	luxuriant

Storage and Shelf Life

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

Reference

- 1.Greenberg A.E., Trussell R.R. and Clesceri L.S. (Eds.), 1985, Standard Methods for the Examination of Water and Wastewater, 16th ed., APHA, Washington, D.C.
- 2.American Public Health Association, 1978, Standard Methods for the Examination of Dairy Products, 14th ed., APHA, Inc., Washington, D.C.
- 3.American Public Health Association, 1917, Standard Methods of Water Analysis, 3rd ed., APHA, Inc., Washington, D.C.
- 4.Indian Pharmacopoeia, 1985, Third Edition, Government of India Ministry of Health of family Welfare

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