



Nutrient Broth with 1% Peptone

M244

Nutrient Broth with 1% Peptone is used as a general purpose and sterility testing media.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	10.000
Beef extract	10.000
Sodium chloride	5.000
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 25 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Nutrient Broth with 1% Peptone has almost double concentration of the nitrogen sources than that used in Nutrient Broth, making it more nutritive.

Beef extract and peptic digest of animal tissue provide the necessary nitrogen compounds, carbon, vitamins and also some trace ingredients to non-fastidious organisms like *Bacillus subtilis* and *Staphylococcus aureus*. Sodium chloride maintains osmotic equilibrium of the medium. Peptic digest of animal tissue and beef extract are nutritionally rich in supplying essential nitrogen and growth factors (1).

Nutrient Broth with 1% Peptone can be used as a sterility testing medium for aerobes against Nutrient Broth recommended for microbial limit tests as per standard pharmacopoeia (2). This broth can also be used as the suspending medium for cooked meat granules for the cultivation of anaerobic organisms. Nutrient Broth w/ 1% Peptone is a nutritionally rich medium that facilitates the growth of very low inocula, when with fastidious microorganisms.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured clear solution in tubes

Reaction

Reaction of 2.5% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH

7.20-7.60

Cultural Response

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

Cultural Response

Organism	Inoculum (CFU)	Growth
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant
<i>Enterobacter aerogenes</i> ATCC 13048	50-100	luxuriant
<i>Klebsiella pneumoniae</i> ATCC 13883	50-100	luxuriant

<i>Salmonella Typhimurium</i> ATCC 14028	50-100	luxuriant
<i>Escherichia coli</i> ATCC 8739	50-100	luxuriant
<i>Escherichia coli</i> NCTC 9002	50-100	luxuriant
<i>Staphylococcus aureus</i> ATCC 6538	50-100	luxuriant
<i>Salmonella Abony</i> NCTC 6017	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. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore
2. IP: Indian Pharmacopoeia, 1996, Govt. of India, 1996, The Controller of Publication, Delhi.

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