Technical Information

Nutrient Broth with 1% Peptone

Product Code: DM 1244

Application: 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

Principle & Interpretation

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

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].

Methodology

Suspend 25 grams of powder media in 1000 ml distilled water. Shake well & heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical 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 Range 7.20-7.60

Cultural Response/ characteristices

DM 1244: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
Escherichia coli ATCC 25922	50-100	luxuriant
Enterobacter aerogenes ATCC 13048	50-100	luxuriant
Klebsiella pneumoniae ATCC 13883	50-100	luxuriant
Salmonella Typhimurium ATCC 14028	50-100	luxuriant
Escherichia coli ATCC 8739	50-100	luxuriant
Escherichia coli NCTC 9002	50-100	luxuriant
Staphylococcus aureus ATCC 6538	50-100	luxuriant
Salmonella A bony NCTC 6017	50-100	luxuriant

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. 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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