



# Nutrient Broth with 1% Peptone

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)	$7.4\pm0.2$	
**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

### pН

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
Escherichia coli ATCC 25922	50-100	luxuriant
Enterobacter aerogenes ATCC 13048	50-100	luxuriant
Klebsiella pneumoniae ATCC 13883	50-100	luxuriant

**M244** 

Salmonella Typhimurium	50-100	luxuriant
ATCC 14028		
Escherichia coli ATCC 873	9 50-100	luxuriant
Escherichia coli NCTC 900	2 50-100	luxuriant
Staphylococcus aureus	50-100	luxuriant
ATCC 6538		
Salmonella Abony NCTC	50-100	luxuriant
6017		

#### **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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