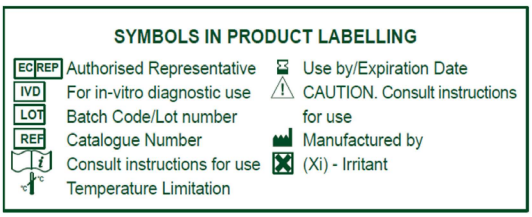
Nutrient Broth

REF.	Pack size
1421 001	100 gm
1421 002	500 gm



Intended Use

Nutrient Broth is used as a general purpose medium for the cultivation of less fastidious microorganisms, can be enriched with blood or other biological fluids.

Background

Nutrient broth is a general purpose non- selective medium for the cultivation of organisms that are not demanding in their nutritional requirements e.g. organisms that can be isolated from air, water, dust etc. It can be used for the cultivation and enumeration of bacteria which are not particularly fastidious. It is isotonic and can be enriched with biological fluids such as sterile blood and egg yolk.

Principle

Peptone, Beef extract and yeast extract provide the necessary nitrogen compounds,carbon, vitamins and also some trace ingredients necessary for the growth of bacteria. Sodium chloride maintains the osmotic equilibrium of the medium.Nutrient Broth is suitable for teaching and demonstration purposes.

Components	gm/Liter
Peptone	5.0
Sodium Chloride	5.0
Beef extract	1.5
Yeast extract	1.5

Final pH (at 25°C) 7.4±0.2

Preparation, Storage and Stability

Store the dehydrated medium at 10-30°C and use before the expiry date on the label.Store the prepared medium at 2-8°C
After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Procedure

1. Suspend 13 grams of the medium in one liter of distilled water.
2.Heat if necessary to dissolve the medium completely.
3.Dispense into bottles or tubes as desired.
4.Sterilize by autoclaving at 121°C for 15 minutes.

Quality Control

Appearance

1-Dehydrated Appearance : Cream to yellow homogeneous free flowing powder

2-Prepared Appearance : Light yellow coloured clear solution with no precipitate.

3-Cultural Response : after 18-48 hours at 30-35°C or at 35 ± 2°C for clinical specimens

Organisms (ATCC)	Growth
E.Coli	Good
Pseudomonas aeruginosa	Good
Staphylococcus aureus	Good
Streptococcus pyogenes	Good

Interpretation of the results

1- Inoculate tubes of medium with test samples.

2- Growth is seen as turbidity in the medium.

Precautions

1-Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

Bibliography

1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington DC
2. Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1
3. MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Lippincott, Williams and Wilkins, Baltimore.

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