Nutrient Broth

Intended Use
Nutrient Broth is used as a general-purpose culture media for the cultivation of bacteria, which may also be used as enrichment media by incorporating 10% v/v sterile blood or other biological fluids.

Summary
Nutrient Broth is a basic non-selective culture medium used for the routine cultivation of microorganisms. Nutrient Broth can be used for the cultivation of more exacting bacteria by incorporating biological fluids like horse or sheep blood, serum, ascitic fluid, egg yolk, etc.

Principle
Peptone and beef extract provide water-soluble substances including carbohydrates, vitamins, organic nitrogen compounds and salts. Peptone is the principle source of organic nitrogen, particularly amino acids and long chained peptides. Sodium chloride maintains the osmotic equilibrium of the medium.

Formula*

Ingredients	**g/L**
Peptone	5.0
Sodium Chloride	5.0
Beef Extract	1.5
Yeast Extract	1.5
Final pH (at 25°C)	7.4 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen
Water and Waste Water samples; Clinical samples - Faeces; Food and Dairy samples

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 13.00 g of powder in 1000 mL purified / distilled water.
2. Boil with frequent agitation to dissolve the powder completely.
3. Dispense as required.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control
Dehydrated Appearance: Cream to yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Light yellow to amber coloured, clear solution without any precipitate.
Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP and growth is observed after an incubation at 30°C-35°C for 18 to 24 hours.
Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤ 100 cfu of appropriate microorganism at 30°C-35°C for 18 hours.

Organism (ATCC)	Growth
Escherichia coli (25922)	Good
Escherichia coli (8739)	Good
Staphylococcus aureus subsp. *aureus* (25923)	Good
Staphylococcus aureus subsp. *aureus* (6538)	Good
Streptococcus pyogenes Strain Bruno (19615)	Good
Pseudomonas aeruginosa Strain Boston 41501 (27853)	Good
Pseudomonas aeruginosa (9027)	Good
Bacillus spizizenii (6633)	Good

Note: Inoculum cfu for good growth is 10 - 100.

Interpretation of Results

1. Growth is seen as turbidity in the medium.
2. Aliquots of the medium can be used for sub-culturing onto a solid medium for isolation and identification of pure cultures.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. US Food and Drug Adm; 1998, Bacteriological Analytical Manual, 8th Ed; Rev. A, AOAC, International, Gaithersburg, Md.
2. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201140090100	Dehydrated Culture Media	100 g
201140090500	Dehydrated Culture Media	500 g
201140092500	Dehydrated Culture Media	2.5 k
201140099825	Dehydrated Culture Media	25 k
203140160005	Ready Prepared Tube	50 x 5 mL