TM 1917 – NUTRIENT BROTH, NO. 3

INTENDED USE

For the culture and growth of microorganisms.

PRODUCT SUMMARY AND EXPLANATION

Nutrient Broth is a general purpose medium used for the cultivation of microorganisms that are not exacting in their nutritive requirements. Nutrient Broth No. 3 is a basic culture medium used for maintaining microorganisms and for purity checking prior to biochemical or serological testing. This medium is used for the cultivation and enumeration of bacteria, which are not particularly fastidious. In semisolid form it is used for maintenance or control of standard organisms. Addition of different biological fluids such as horse or sheep blood, serum, egg yolk, etc. makes it suitable for the cultivation of fastidious organisms.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	5.000
Meat extract	1.000
Sodium chloride	5.000
Yeast extract	2.000

PRINCIPLE

The medium consists of an infusion of meat and peptone which constitute the nutrient composition. Meat extract, peptone and yeast extract provides nitrogen, carbon compounds, long chain amino acids, vitamin B complex and other necessary nutrients for the growth of non-fastidious organisms. Sodium chloride helps to maintain osmotic balance in the medium.

INSTRUCTION FOR USE

- Dissolve 13.0 grams in 1000 ml purified/distilled water.
- Heat, if necessary, to dissolve the medium completely.
- Dispense into test tubes or flasks as desired and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light amber coloured clear solution in tubes.
pH (at 25°C)	: 7.4 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period

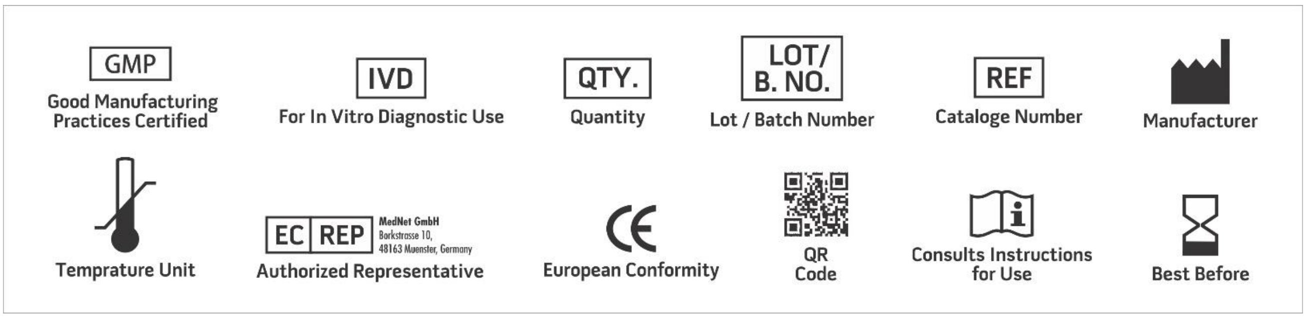
Escherichia coli	25922	50-100	Luxuriant	35-37°C	18-48 Hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	35-37°C	18-48 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Luxuriant	35-37°C	18-48 Hours
Streptococcus pyogenes	19615	50-100	Luxuriant	35-37°C	18-48 Hours

PACKAGING:
In pack size of 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. 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.
2. Lapage S., Shelton J. and Mitchell T., 1970, Methods in Microbiology', Norris J. and Ribbons D., (Eds.), Vol. 3A, Academic Press, London.
3. MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Lippincott, Williams and Wilkins, Baltimore.
4. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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