ARENA BioScien

Block 5, Street 9 inside The Ismailia free zone. Ismailia- Egypt
Post Code-41511
Tel.-Fax: +202 21813500/ +202 21813600
Mob.: +2 01211550941/ +2 01119225860
E-mail: sales@arenabioscientific.com
Website: www.arenabioscien.com

# Nutrient Broth No.2

For cultivation and enrichment of less fastidious bacteria and as a base in the preparation of special media.

| | | | |
|---|---|---|---|
| REF: BS.1/NN01.100.0100 | 100 Gram | REF: BS.1/NN01.250.0250 | 250 Gram |
| REF: BS.1/NN01.500.0500 | 500 Gram | | |

## CLINICAL SIGNIFICANCE

Nutrient Broth is a general purpose medium used for the cultivation of microorganisms that are not exacting in their nutritive requirements. Nutrient Broth No.2 is a basic culture medium used for maintaining microorganisms (1) and for purity checking prior to biochemical or serological testing. It 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 (2).

## METHOD PRINCIPLE

Meat peptone and tryptone provide the necessary nutrients for the growth of non-fastidious organisms. Sodium chloride maintains the osmotic equilibrium of the medium.

## MEDIA COMPOSITION

| Item | Formula per liter of medium |
|---|---|
| - Meat peptone | 4.300 gm |
| - Tryptone | 4.300 gm |
| - Sodium Chloride | 6.400 gm |

## PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.
  ***S56:*** dispose of this material and its container at hazardous or special waste collection point.
  ***S57:*** use appropriate container to avoid environmental contamination.
  ***S61:*** avoid release in environment.

For further information, refer to the Nutrient Broth No.2 material safety data sheet.

## STORAGE AND STABILITY

***BioScien*** Nutrient Broth No.2 should be stored between 10-30°C in a firmly closed container and the prepared medium at 15-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

***Final pH 7.5 ± 0.2 at 25°C***

## PREPARATION

Suspend 15 grams in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Dispense into tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

### *Deterioration*

The color of ***BioScien*** Nutrient Broth No.2 is Cream to yellow homogeneous free flowing powder. Prepared Media is Light yellow coloured clear solution. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard medium.

## SPECIMEN

Clinical samples - faeces, urine; Food and dairy samples; Water samples.

## EQUIPMENT REQUIRED NOT PROVIDED

- Sterile test tubes
- Incubator
- Autoclave

## PERFORMANCE CHARACTERISTICS

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

| Organism | Growth |
|---|---|
| *Klebsiella aerogenes ATCC 13048* | luxuriant |
| *Klebsiella pneumoniae ATCC 13883* | luxuriant |
| *Salmonella Typhimurium ATCC 14028* | luxuriant |
| *Escherichia coli ATCC 25922* | luxuriant |

## QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control still out of range please contact ***BioScien*** technical support.

## REFERENCES


1. Lapage S., Shelton J. and Mitchell T., 1970, Methods in Microbiology', Norris J. and Ribbons D., (Eds.), Vol. 3A, Academic Press, London.
2. MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Lippincott, Williams and Wilkins, Baltimore.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. 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.
5. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed.,Washington D.C.
6. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
7. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed.,APHA Inc., Washington, D.C.
8. Lipps WC, Braun-Howland EB, Baxter TE,eds. Standard methods for the Examination of Water and Wastewater, 24th ed. Washington DC:APHA Press; 2023.


| SYMBOLS IN PRODUCT LABELLING | | | |
|---|---|---|---|
| IVD | For in-vitro diagnostic use | Σ | Number of <n> test in the pack |
| LOT | Batch Code/Lot number | | Caution |
| REF | Catalogue Number | | Do not use if package is damaged |
| | Temperature Limitation | | Consult Instruction for use |
| | Expiration Date | | |
| | Manufactured by | | |