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

# Tryptose Blood Agar Base

Tryptose Blood Agar Base is designed for the isolation of fastidious organisms and estimation the haemolytic reactions.

| | | | |
|---|---|---|---|
| REF: BS.1/NZ01.100.0100 | 100 Gram | REF: BS.1/NZ01.250.0250 | 250 Gram |
| REF: BS.1/NZ01.500.0500 | 500 Gram | | |

## PRINCIPLE AND INTERPERTATION :

Tryptose Blood Agar Base is a tryptose based medium that can be used for the cultivation of fastidious organisms (1,2), on supplementation with blood. This medium is devoid of dextrose and therefore useful in determining the haemolytic reactions. Tryptose Blood Agar Base is recommended by FDA (3). Tryptose Blood Agar Base can be used as a general purpose medium without supplementation of blood. These media can be used to determine the haemolytic reactions of fastidious organisms. The four different types of hemolysis observed are as follows: a)Alpha hemolysis: partial lysis of the erythrocytes surrounding colony, causing a grey green or brownish discoloration in the media. b)Beta hemolysis: complete lysis of the red blood cells surrounding a colony, causing a clearing of blood from the medium. c) Gamma hemolysis: no hemolysis and consequently, no colour change of the medium surrounding a colony. Organisms showing no hemolysis are generally termed non-hemolytic rather than gamma haemolytic. d)Alpha-prime or wide zone alpha: a small zone of intact erythrocytes immediately adjacent to the colony, with a zone of complete red cell hemolysis surrounding the zone of intact erythrocytes. This type of hemolysis may be confused with beta hemolysis (4). Tryptose and HM peptone B provide nitrogenous and carbonaceous compounds, sulphur, vitamin B complex and trace elements essential for bacterial metabolism. Blood provides additional nutrients and serves as a base to study haemolytic reactions. This medium not only keeps the blood cells in a good state but also help in forming distinct hemolysis. Perform biochemical test for further identification (5). As per FDA BAM, pure cultures of Salmonella are maintained on Tryptose Blood Agar Base for serological testing (3).

## MEDIA COMPOSITION

| Item | Formula per liter of medium |
|---|---|
| Tryptone | 10.00 gm |
| HM Peptone B# | 3.00 gm |
| Sodium Chloride | 5.00 gm |
| Agar | 15.00 gm |

# - Equivalent to beef extract

**Final pH** (at 25°C) 7.0 ± 0.2 ** Formula adjusted, standardized to suit performance parameters.

## 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 Tryptose Blood Agar Base material safety data sheet.

## STORAGE AND STABILITY

***BioScien*** Tryptose Blood Agar Base should be Stored between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in 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.

### *PREPARATION*

Suspend 33.0 grams in 950 ml purified/distilled water.Heat to boiling to dissolve the medium completely.Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.For preparing Blood Agar,cool the autoclaved medium to 45-50°C and aseptically add 5% v/v sterile defibrinated blood. Mix thoroughly, avoiding air bubbles and pour into sterile Petri plates.

### *Deterioration*

The color of ***BioScien*** Tryptose Blood Agar Base Cream to yellow homogeneous free flowing powder. prepared medium Basal medium : Yellow coloured clear to slightly opalescent gel forms in Petri plates. After addition of 5% v/v sterile defibrinated blood : Cherry red coloured opaque gel forms in Petri plates.

## EQUIPMENT REQUIRED NOT PROVIDED

- Sterile petri dishes
- Incubator
- Autoclave

## PERFORMANCE CHARACTERISTICS

Cultural characteristics observed with added 5% v/v sterile defibrinated blood, after an incubation at 35-37°C for 18-48 hours.

| Organisms (ATCC) | Growth | Haemolysis |
|---|---|---|
| Neisseria meningitidis ATCC 13090 | luxuriant | none |
| Staphylococcus aureus subsp. aureus ATCC 25923 | luxuriant | beta/gamma |
| Staphylococcus epidermidis ATCC 12228 | good-luxuriant | gamma |
| Streptococcus pneumoniae ATCC 6303 | good | alpha |

## 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.

## REFERENCE


1. Casman E. P., 1942, J. Bacteriol., 43:33.
2. Casman E. P., 1947, Am. J. Clin. Pathol., 17: 281.
3. Chapter 5:Salmonella, FDA Bacteriological Analytical Manual, Oct 2017, AOAC, Washington, DC.
4. Koneman E. W., Allen S. D., Janda W. M., Schreckenberger P. C., Winn W. C. Jr., 1992, Colour Atlas and Textbook of Diagnostic Microbiology, 4th Ed., J. B. Lippinccott Company.


**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 | | |