Technical Information

Tryptone Agar Base

Product Code: DM 1319

Application: Tryptone Agar Base is used for determination of motility and carbohydrate fermentation reactions of aerobes and anaerobes.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	20.000
Phenol red	0.020
Agar	3.500
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Tryptone Agar was formulated by Vera [1] for the accurate differentiation and identification of aerobes and anaerobes by means of motility and fermentation reactions. It is recommended for Clostridia, Bacillus species, Micrococci, enteric bacilli and other nonfastidious organisms [2].

Casein enzymic hydrolysate provides essential nutrients necessary to support the growth of nonfastidious microorganisms. Phenol red is the pH indicator. Small amount of agar meke it suitable for study of motility. Acid produced do not readily get dispersed throughout the medium and hence positive reaction can be more quickly determined in this medium than in liquid medium. Tryptone Agar Base is also an excellent medium for the maintenance for both - aerobic and anaerobic cultures. Viability in this medium is greater than in any other broth medium or slant culture. Fermentation reactions can also be determined by the addition of desired carbohydrates. Acid production, during fermentation, is detected by the phenol red indicator by changing the colour of the medium from red to yellow.

Methodology

Suspend 23.52 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. If desired add required amount of carbohydrate (0.5%). Dispense in tubes and sterilize by autoclaving at 12 lbs pressure (118°C) for 15 minutes. Cool the tubed medium in an upright position.

Quality Control

Physical Appearance
Light yellow to light pink homogeneous free flowing powder

Gelling
Semisolid, comparable with 0.35% Agar gel.

Colour and Clarity of prepared medium
Red coloured clear to slightly opalescent gel forms in tubes as butts.

Reaction
Reaction of 2.35% w/v aqueous solution at 25°C. pH : 7.4±0.2

pH range 7.20-7.60

Cultural Response/Characteristics
DM 1319: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours with added 0.5% Dextrose.

Organism	Inoculum (CFU)	Growth	Acid	Sulfite reduction
Clostridium perfringens ATCC 12924	50-100	luxuriant	positive reaction, yellow colour	negative, growth along the stabline, surrounding medium remains clear
Clostridium sporogenes ATCC 11437	50-100	luxuriant	positive reaction, yellow colour	positive, growth away from stabline causing turbidity
Escherichia coli ATCC 25922	50-100	luxuriant	positive reaction, yellow colour	positive, growth away from stabline causing turbidity
Enterobacter aerogenes ATCC 13048	50-100	luxuriant	positive reaction, yellow colour	positive, growth away from stabline causing turbidity
Salmonella Typhi ATCC 6539	50-100	luxuriant	positive reaction, yellow colour	positive, growth away from stabline causing turbidity
Salmonella Enteritidis ATCC 13076	50-100	luxuriant	positive reaction, yellow colour	positive, growth away from stabline causing turbidity
Staphylococcus aureus ATCC 25923	50-100	good	positive reaction, yellow colour	negative, growth along the stabline, surrounding medium remains clear

Storage and Shelf Life

Dried media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 days.

Further Reading

1. Vera, 1944, J. Bact., 47:455.
2. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
- Do not use the products if it fails to meet specificatons for identity and performens parameters.