Technical Information

Anaerobic Agar (Brewer)

Product Code: DM 1491

Application: - Anaerobic Agar (Brewer) is recommended for the isolation and sensitivity testing of facultative and obligatory anaerobes and study of colonial morphology.

Composition**

Ingredients	Gms / Litre
Proteose peptone	10.000
Casein enzymic hydrolysate	5.000
Yeast extract	5.000
Dextrose	10.000
Sodium chloride	5.000
Sodium thioglycollate	2.000
Sodium formaldehyde sulphoxylate	1.000
Resazurin	0.002
Agar	15.000
Final pH (at 25^0 C)	7.2±0.2

** Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Brewer [1] devised this medium for use with Brewer anaerobic cover for that surface growth of anaerobes and microaerophiles on agar without using anaerobic jar. This medium is suitable for isolation of facultative and obligate anaerobes and for the study of colonial morphology which can be readily seen on the light coloured agar media [2,3].

Dispense 50-60 ml medium per 95 x 20 mm plate. For best results, use porous tops for the plates during solidification to obtain a dry surface. Inoculation can be done by streaking or smearing. After inoculation of the medium, cover with Brewer Anaerobic Petri dish cover. The sealing ring inside the cover should make a perfect contact with the medium and must not be broken before the end of the incubation period. When standard plates are used, dispense 0.1 to 1.0 ml of inoculum into plates and mix with 20-25 ml of sterile medium.

Proteose peptone, casein enzymic hydrolysate, yeast extract provides nitrogen, vitamin and amino acids. Dextrose is a carbohydrate source. This medium contains sodium thioglycollate and sodium formaldehyde sulphoxylate that provide adequate anaerobiosis, which is indicated by resazurin present in the medium. Resazurin provides pink colour to the medium in presence of oxygen.

Methodology

Suspend 53 grams of powder media in 1000 ml distilled water. Shaking well & heat to boiling to dissolve the medium completely. Sterilize by authoclaving at 15 lbs pressure (121^0 C) for 15 minutes. Mix well and pour into sterile petri plates.

Quality Control

Physical Appearance

Cream to yellow homogenesous free flowing powder

Gelling

Firm comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light amber coloured clear to slightly opalescent gel forms in petri plates that becomes red due aeration on standing.

Reaction

Reaction of 5.3% w/v awueous solution at 25^0 C pH :7.2±0.2

pH Range:- 7.00-7.40

Cultural Response/Characteristics

DM 1491 : Cultural characteristics observerd under anaerobic condition, after an incubation at 35-37^0 C for 18-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Clostridium botulinum ATCC 19397	50-100	luxuriant	>=50%
Clostridium perfringens ATCC 12924	50-100	luxuriant	>=50%
Clostridium sporogenes ATCC 11437	50-100	luxuriant	>=50%

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. Brewer J. H., 1942, Science, 95:587.
2. Isenberg (Ed.), 1992, Clinical Microbiology Procedures Handbook, American Society for Microbiology, Washington, D.C.
3. Baron E. J., Peterson and Finegold S. M., Bailey & Scotts Diagnostic Microbiology, 9th Ed., 1994, Mosby-Year Book, Inc., St. Louis, Mo.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried a 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.
- Donot use the products if it fails to meet specificatons for identity and performens parameters.