

Technical Information

AC Agar

Product Code: DM 1337

Application: AC Agar is recommended for cultivation of wide variety of microorganisms particularly for sterility testing.

Composition**

Ingredients	Gms / Litre
Proteose peptone	20.000
Beef extract	3.000
Yeast extract	3.000
Malt extract	3.000
Dextrose	5.000
Ascorbic acid	0.200
Agar	1.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

AC Medium support an early and luxuriant growth of aerobic, anaerobic and microaerophilic microorganisms. Many pathogenic and saprophytic aerobes can also be isolated using AC Medium ⁽¹⁾. This medium can also be used for sterility testing of solutions and biological products not containing mercurial preservatives. AC Agar does not exhibit the toxicity as shown by some media containing sodium thioglycollate for some organisms ^(2,3). Earlier studies performed have reported the usefulness of this medium for the cultivation of a wide variety of organisms ^(4, 5). Kolb Schneither ⁽⁶⁾ used AC Agar to test the viability of *Bacillus anthracis* after exposure to methyl bromide to test the efficiency of methyl bromide as a germicidal and sporicidal agent. In addition to being a source of vitamins and cofactors. proteose peptone, beef extract, yeast extract and malt extract also serve as the carbon and nitrogen sources. Dextrose provider the fermentable carbohydrate source of energy. Ascorbic acid helps to improve the clarity of the medium.

Methodology

Suspend 35.2 grams of powder media in 1000 ml of distilled water. Shake well and heat to dissolve the medium completely. Distribute in tubes or bottles to give the desired depth and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. If the medium is not used on same day, it is advisable to drive off dissolved gases by boiling or steaming in the autoclave and cool without agitation before use.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Semisolid, comparable with 0.1 % Agar gel.

Colour and Clarity of prepared medium

Medium amber coloured clear to slightly opalescent solution

Reaction

Reaction of 3.52% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH Range:- 7.00-7.40

Cultural Response/Characteristics

DM 1357: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours (Clostridium species incubated anaerobically).



Dehydrated Culture Media
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth
<i>Clostridium perfringens</i> ATCC 12919	50-100	luxuriant
<i>Escherichia coli</i> ATCC25922	50-100	Luxuriant
<i>Neisseria meningitides</i> ATCC 13090	50-100	Luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	50-100	Luxuriant
<i>Streptococcus mitis</i> ATCC9811	50-100	Luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6303	50-100	Luxuriant

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^o in sealable plastic bags for 2-5 days.

Further Reading

1. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I. Williams & Wilkins, Baltimore, Md.
2. Christensen, 1944, Paper read at New York Meeting, American Public Health Association.
3. Malin and Finn, 1951, J. Bacteriol., 62:349.
4. Reed and Orr, 1943, J. Bacteriol., 45:309.
5. Schneiter, Dunn and Caminita, 1945, Public Health Rep., 60:789.
6. Kolb and Schneiter, 1950, J. Bacteriol., 59:401.

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.
- Do not use the products if it fails to meet specifications for identity and performs parameters.

