A C Broth

M875

Intended Use:

Recommended for cultivation of common aerobes and sterility testing of solutions and biological products without mercurial preservatives.

Composition**

Ingredients	Gms / Litre
Proteose peptone	20.000
HM peptone B #	3.000
Yeast extract	3.000
Malt extract	3.000
Dextrose (Glucose)	5.000
Ascorbic acid	0.200
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Beef extract

Directions

Suspend 34.2 grams in 1000 ml of purified / distilled water. Heat if necessary 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.

Principle And Interpretation

AC Broth support an early and luxuriant growth of aerobic, anaerobic and microaerophilic microorganisms. Many pathogenic and saprophytic aerobes can also be cultivated using AC Broth (1). This medium can also be used for sterility testing of solutions and biological products not containing mercurial preservatives. Some of the media containing sodium thioglycollate exhibit toxicity for some organisms. This toxicity is not seen in the case of AC Broth as reported by Christensen (2) and Malin and Finn (3). Earlier studies performed have reported the usefulness of using this medium for the cultivation of a wide variety of organisms (4, 5).

Proteose peptone, HM peptone B, yeast extract and malt extract serve as the carbon and nitrogen sources in addition to being a source of vitamins and cofactors. Dextrose serves as the fermentable carbohydrate and source of energy. Ascorbic acid in the media helps to improve the clarity of the medium.

Type of specimen

Pharmaceutical samples- Environmental monitoring

Specimen Collection and Handling

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. This medium is general purpose medium and may not support the growth of fastidious organisms.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Medium amber coloured clear to slightly opalescent solution.

Reaction
Reaction of 3.42% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH
7.00-7.40

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

Organism	Inoculum (CFU)	Growth
Clostridium perfringens ATCC 12919	50-100	luxuriant
Escherichia coli ATCC 25922 (00013*)	50-100	luxuriant
Neisseria meningitidis ATCC 13090	50-100	luxuriant
Staphylococcus aureus subsp. *aureus ATCC 25923* (00034*)	50-100	luxuriant
Streptococcus mitis ATCC 9811	50-100	luxuriant
Streptococcus pneumoniae ATCC 6303	50-100	luxuriant

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder 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.

Disposal

Vtfs nvtu fotvsf tbgf e tqptbm c bvupdmbw oh boe0ps od ofsbu po pg vtfe ps vovtbcmf qsfqbsbu pot pg ui t qspevdu/ pmmpx ftubcm tife mbcpsbups qspdfevsft o e tqpt oh pg ogfdu pvt nbufs bmt boe nbufs bm uibu dpnft oup dpoubdu x ui tbnqmf nvtu cf efdpoubn obufe boe e tqptfe pg o bddpsebodf x ui dvssfou mbcpsbups ufdio rvf2,3

Reference

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.

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