

TM 003 – AC BROTH

INTENDED USE

For cultivation of aerobes and sterility testing of biological products without mercurial preservatives.

PRODUCT SUMMARY AND EXPLANATION

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. 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 and Malin and Finn. Earlier studies performed have reported the usefulness of using this medium for the cultivation of a wide variety of organisms.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	20.000
Beef extract	3.000
Yeast extract	3.000
Malt extract	3.000
Dextrose (Glucose)	5.000
Ascorbic acid	0.200

PRINCIPLE

Proteose peptone, beef extract, 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.

INSTRUCTION FOR USE

- 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.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Medium amber coloured clear to slightly opalescent solution.
pH (at 25°C) : 7.2±0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU)	Growth	Incubation Temperature	Incubation Period
<i>Clostridium perfringens</i>	12919	50-100	Luxuriant	35-37°C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	35-37°C	18-24 Hours
<i>Neisseria meningitidis</i>	13090	50-100	Luxuriant	35-37°C	18-24 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25923	50-100	Luxuriant	35-37°C	18-24 Hours
<i>Streptococcus mitis</i>	9811	50-100	Luxuriant	35-37°C	18-24 Hours
<i>Streptococcus pneumoniae</i>	6303	50-100	luxuriant	35-37°C	18-24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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



 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
Revision: 08 Nov., 2019