TM 366 – COOKED MEAT MEDIUM (R.C. MEDIUM) (COMPLETE SOLUBLE)

INTENDED USE

For cultivation and maintenance of aerobes, anaerobes of stock cultures.

PRODUCT SUMMARY AND EXPLANATION

Cooked Meat Medium was originally developed by Robertson for the cultivation of certain anaerobes isolated from wounds. The present formulation is a modification, also called as Chopped M-Medium, which supports the growth of many spore forming and non-spore forming strict anaerobes. It has the ability to initiate growth of bacteria from very small inocula and to maintain the viability of cultures over long period. Mixed cultures of bacteria survive in Cooked Meat Medium without displacing the slower-growing organisms. The products of growth do not rapidly destroy the inoculated organisms and therefore it is an excellent medium for the storage of aerobic and anaerobic organisms. It is used for cultivation and maintenance of Clostridia and for determining proteolytic activity of anaerobes. FDA has recommended this medium for enumeration and identification of *Clostridium perfringens* from foods.

For best results, medium should be used on the day it is prepared, otherwise it should be boiled or steamed for a few minutes and allowed to cool without agitation and then inoculated. Inoculation should be made near the bottom of the tube in the meat particles for anaerobic cultures. Aerobes grow at the top whilst more anaerobic species grow deeper in the medium.

COMPOSITION

Ingredients	Gms / Ltr
Beef heart, solids	98.000
Proteose peptone	20.000
Dextrose(Glucose)	2.000
Sodium chloride	5.000

PRINCIPLE

This medium consists of Beef heart solids, which provide amino acids and other nutrients. It also contains glutathione, a reducing substance that permits the growth of obligate anaerobes. The sulfhydryl groups, which impart reducing effect, are more available in denatured protein and hence cooked meat is added in the medium. The addition of dextrose allows rapid and heavy growth of anaerobic bacteria in a short time and leads to more rapid identification of important anaerobes. Growth in this medium is indicated by turbidity or bubble formation by some organisms. Blackening and disintegration of the meat particles indicate proteolysis.

INSTRUCTION FOR USE

- Dissolve 12.5 grams in 100 ml purified/distilled water.
- Mix thoroughly and allow to stand for 15 minutes until all the particles are thoroughly wetted.
- Dispense into tubes or flasks as desired.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 min.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Creamish yellow homogeneous free flowing powder..
Appearance of prepared medium : Light amber colour clear to slightly opalescent solution, may have some precipitate.
pH (at 25°C) : 7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Clostridium botulinum	25763	50-100	Luxuriant	35-37°C	40-48 Hours
Clostridium perfringens	12924	50-100	Luxuriant	35-37°C	40-48 Hours
Clostridium sporogenes	11437	50-100	Luxuriant	35-37°C	40-48 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	35-37°C	40-48 Hours
Streptococcus pneumoniae	6303	50-100	Luxuriant	35-37°C	40-48 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.

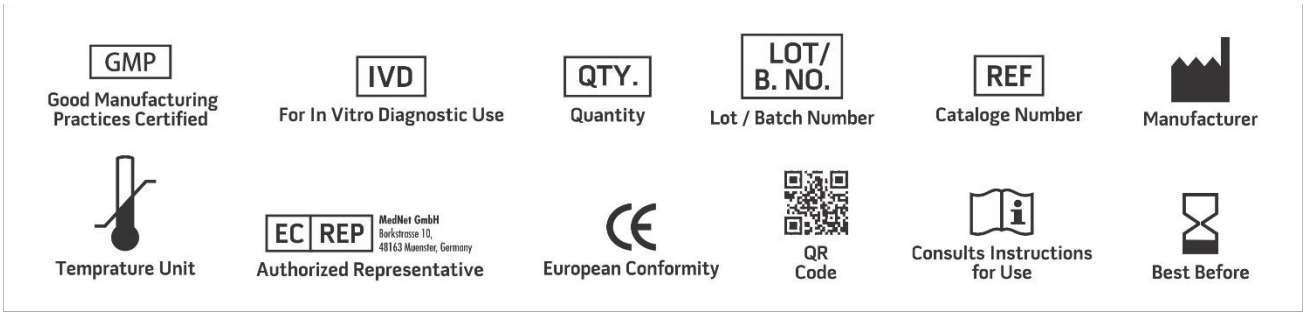
DISPOSAL

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

REFERENCES

1. Collins C. H., Lyne P. M., Grange J. M., 1985, 7th Ed., Microbiological Methods.
2. MacFaddin J. F., 1985, Media for Isolation - Cultivation - Identification - Maintenance of Medical bacteria, Vol. I, Williams & Wilkins, Baltimore.

3. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
4. U. S. Food and Drug Administration, 1984, Bacteriological Analytical Manual, 6th Ed., AOAC, Arlington, Va.
5. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.



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

***For Lab Use Only**

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