

TM 703 – COOKED MEAT MEDIUM (R.C. MEDIUM) (as per BIS)

INTENDED USE

For cultivation of aerobes and anaerobes especially pathogenic Clostridia and also for maintenance of stock cultures. It is recommended by BIS committee under the specifications IS:5887(Part II)-1976.

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 recommended by BIS for the detection and enumeration of bacteria responsible for food poisoning especially *Clostridium welchii*. This medium with addition of further 10% Sodium chloride is used as a salt medium for isolation of Staphylococci. It is used for cultivation and maintenance of Clostridia and for determining proteolytic activity of anaerobes. FDA has recommended a slight modification of this medium for enumeration and identification of *Clostridium perfringens* from foods.

The growth in this medium is indicated by the turbidity or bubble formation by some organisms. Blackening and disintegration of the meat particles indicate proteolysis. 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.

COMPOSITION

Ingredients	Gms / Ltr	
Beef heart, infusion from	500.000	
Peptic digest of animal tissue	5.000	
Sodium chloride	2.500	

PRINCIPLE

Cooked Meat Medium contains beef heart, the muscle protein which provides amino acids and other nutrients. It also contains glutathione a reducing substance which permits the growth of obligate anaerobes. The sulphydryl groups which impart reducing effect are more available in denatured protein and hence the cooked meat is added in the medium.

INSTRUCTION FOR USE

- Dissolve 11.54 grams in 100 ml distilled water.
- Mix thoroughly and allow to stand for 15 minutes until all the particles are thoroughly wetted.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Brown coloured granules.

Appearance of prepared medium : Medium amber coloured clear to slightly opalescent supernatant over

insoluble granules.

pH (at 25°C) : 7.8±0.2

INTERPRETATION

Cultural characteristics observed after incubation.











Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Clostridium botulinum	25763	50-100	Luxuriant	>=70%	35°C	40-48 Hours
Clostridium perfringens	12924	50-100	Luxuriant	>=70%	35°C	40-48 Hours
Clostridium sporogenes	11437	50-100	Luxuriant	>=70%	35°C	40-48 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	>=70%	35°C	40-48 Hours
Streptococcus pneumoniae	6303	50-100	Luxuriant	>=70%	35°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. Robertson, 1916, J. Pathol. Bacteriol., 20:327.
- 2. Bureau of Indian Standards IS: 5887 (Part II) 1976, Second Reprint December 1994.
- 3. Bureau of Indian Standards IS: 5887 (Part IV) 1976.
- 4. Lenette and others (Eds.), 1985, Manual of Clinical Microbiology, 4th ed., ASM, Washington, D.C.
- 5. MacFaddin J.F., 1985, Media for Isolation Cultivation Identification Maintenance of Medical bacteria, Vol. I, Williams & Wilkins, Baltimore.
- $6.\ U.S.\ Food\ and\ Drug\ Administration,\ 1984,\ Bacteriological\ Analytical\ Manual,\ 6th\ ed.,\ AOAC,\ Arlington,\ Va.$





































NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only Revision: 08 Nov., 2019







