

CM 20487 – CLOSTRIDIUM DIFFICILE MANNITOL TAUROCHOLATE BROTH BASE

INTENDED USE

For cultivation of Clostridium difficile from certain clinical specimens.

PRODUCT SUMMARY AND EXPLANATION

Clostridium difficile Mannitol Taurocholate Broth Base is used for the primary isolation of C. difficile from faecal specimens. The spectrum of disease caused by Clostridium difficile (a pathogenic Clostridium affecting the bowel) ranges from pseudomembranous colitis (PMC) through antibiotic associated colitis (AAC). It also includes chronic inflammatory bowel diseases, post-operative diarrhoea and non-antibiotic associated diarrhoea. Smith and King first reported the presence of C. difficile in human infections. The medium composition is designed so as to obtain luxuriant growth of C. difficile. The selective agents D-cycloserine and cefoxitin used in the medium inhibit the growth of majority of Enterobacteriaceae and also Enterococcus faecalis, gram-negative anaerobic bacilli and Clostridium species other than C. difficile, which may be found abundantly in faecal samples.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	40.000
Disodium hydrogen phosphate	5.000
Potassium dihydrogen phosphate	1.000
Sodium chloride	2.000
Magnesium sulfate	0.100
Mannitol	6.000
Neutral red	0.030
Sodium taurocholate	1.000
Cysteine	0.500

PRINCIPLE

Proteose peptone provides essential growth factors and trace nutrients. Mannitol is the fermentable carbohydrate, fermentation of which leads to acid production, detected by neutral red indicator. Taurocholate and lysozyme are added as spore germination stimulators. Inorganic salts supply the necessary growth requirements. Sodium chloride maintains the osmotic equilibrium.

INSTRUCTION FOR USE

Dissolve 55.63grams in 1000 ml distilled water.

Heat if necessary to boiling to dissolve the medium completely.

Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.

Aseptically add rehydrated contents of 1 vial of Clostridium difficile Selective Supplement.

Mix well and dispense into sterile tubes.

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Cream to yellow homogeneous free flowing powder.
 Appearance of prepared medium : Red coloured clear solution in tubes.
 pH (at 25°C) : 7.3±0.2

INTERPRETATION

Cultural characteristics observed after incubation under anaerobic condition with added Clostridium difficile Selective Supplement.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid	Incubation Temperature	Incubation Period
Clostridium difficile	11204	50-100	Luxuriant	Positive reaction, yellow colour	35-37°C	48 Hours
Clostridium sporogenes	11437	≥10 ³	Inhibited	Negative reaction, no colour change	35-37°C	48 Hours
Clostridium perfringens	12924	≥10 ³	Inhibited	Negative reaction, no colour change	35-37°C	48 Hours
Staphylococcus aureus	25923	≥10 ³	Inhibited	Negative reaction, no colour change	35-37°C	48 Hours
Bacteroides fragilis	25285	≥10 ³	Inhibited	Negative reaction, no colour change	35-37°C	48 Hours
Streptococcus faecalis	29212	≥10 ³	Inhibited	Negative reaction, no colour change	35-37°C	48 Hours
Proteus mirabilis	25933	≥10 ³	Inhibited	Negative reaction, no colour change	35-37°C	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. Holdeman, L.V., F.P.Cato and W.E.C.Moore.1977.Anaeobe Laboratory Manual. Virginia Polytechnic Institute and State University. Blacksburg, VA24061.
2. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 14th Ed., Churchill Livingstone.
3. Smith L. D. S. and King E. O., 1962, J. Bacteriol., 84:65.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Birkstrasse 10 48143 Münster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

