TM 2027 – CPC AGAR BASE W/ 1% CELLOBIOSE

INTENDED USE

For the cultivation and identification of *Vibrio* species from foods in accordance with FDA BAM, 1998.

PRODUCT SUMMARY AND EXPLANATION

Vibrio species are natural inhabitants of brackish and salt water. Human disease is associated with ingestion of contaminated water or consumption of contaminated seafood. Wound and systemic infections develop following contact with contaminated water. CPC (Cellobiose, Polymyxin and Colistin) Agar Base w/1% cellobiose, is formulated in accordance with FDA BAM for the differentiation of *Vibrio vulnificus* from other *Vibrio's*. *Vibrio cholerae* strains except *V.cholerae* 01-classical biotype grow on CPC Agar while most *Vibrio parahaemolyticus* strains do not grow on CPC Agar. If growth occurs, colonies appear green purple coloured due to lack of cellobiose fermentation.
Blend approximately 25 grams of food sample with 225 ml Alkaline Peptone Water and incubate at 35 ±2°C for 6 to 8 hrs to overnight depending on the sample. Transfer a loopful culture from this to the surface of the dried plates of CPC Agar Base w/1% cellobiose with Modified CPC Supplement for mCPC Agar or Colistin Supplement for CC Agar; incubate at 39 - 40°C for 18 to 24 hours. Typical colonies of *V. cholerae* are small, smooth, opaque and green to purple in colour as the medium contains two pH indicators viz. bromothymol blue and cresol red. A purple background will also be developed upon extended incubation. Biochemical tests are performed to confirm the organisms.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	10.000
Beef extract	5.000
Cellobiose	10.000
Sodium chloride	20.000
Bromothymol blue	0.040
Cresol red	0.040
Agar	15.000

PRINCIPLE

CPC Agar contains beef extract and peptone which supply the essential nitrogenous compounds to the growing *Vibrio's*. Cellobiose is fermented by some *Vibrio's* producing acid and is indicated by the pH indicator bromothymol blue, which turns yellow at acidic pH. Cresol red is the pH indicator of alkaline range, which turns red at alkaline pH. Alkaline pH of the medium enhances the recovery of *Vibrio's*.

INSTRUCTION FOR USE

- Dissolve 60.08 grams in 1000 ml of purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add the rehydrated contents of 1 vial of Modified CPC Supplement or Colistin Supplement.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to light brown homogeneous free flowing powder.
Appearance of prepared medium : Olive-green to light brown coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.6±0.2

INTERPRETATION

Cultural characteristics observed after incubation with added Modified CPC Supplement or Colistin Supplement.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
Vibrio cholerae	15748	50-100	Good - luxuriant	>=50%	Green-purple	40±2°C	18-24 Hours
Vibrio parahaemolyticus	17802	>=10^3	Inhibited	0%	-	40±2°C	18-24 Hours
Vibrio vulnificus	27562	50-100	Good - luxuriant	>=50%	Yellow	40±2°C	18-24 Hours

PACKAGING:

In pack size of 100 gm bottles.

STORAGE

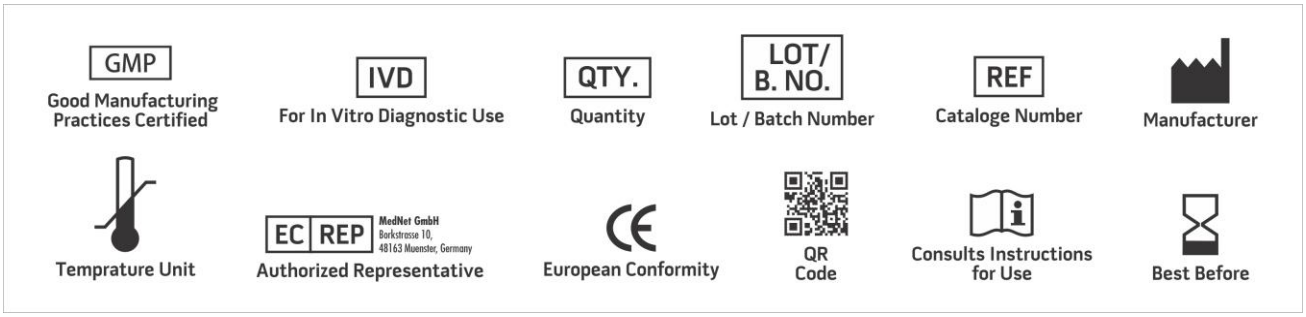
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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. Bacteriological Analytical Manual,8th Edition, Revision A,1998.
2. 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.
3. Salfinger Y., and Tortorello M.L. 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.



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

***For Lab Use Only**

Revision: 08 Nov., 2019