CM 20417 – CHOLERA MEDIUM BASE

INTENDED USE

For selective isolation of Vibrio species from samples contaminated with Enterobacteriaceae.

PRODUCT SUMMARY AND EXPLANATION

Vibriocholerae is theetiological agent of cholera in humans in which the disease is caused not by tissue invasion of microorganisms but through the production of toxins that interrupt normal intra-intestinal exchanges of water and electrolytes. Vibrios grow readily on most isolation media. Adding sodium chloride to the medium enhances growth of all species. Cholera Medium Base is a selective medium used for the isolation of Vibrio species from specimens contaminated with enteric bacteria. It is based on the formulation described by Felsenfeld and Watanabe for the isolation of V. cholerae and similar Vibrios from specimens contaminated with Enterobacteriaceae.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	10.000
Beef extract	10.000
Sucrose	10.000
Sodium lauryl sulphate	0.100
Sodium chloride	20.000
Sodium carbonate	5.000
Agar	10.000

PRINCIPLE

Peptone and beef extract provide nitrogenous nutrients whereas sucrose serves as the fermentable carbohydrate source for the metabolism of Vibrios. Sodium lauryl sulphate inhibits many contaminating organisms. Potassium tellurite also inhibits many gram-positive and gram-negative bacteria except Vibrios. Sodium chloride maintains osmotic equilibrium.

INSTRUCTION FOR USE

Dissolve 65.1 grams in 1000 ml purified / distilled water.
Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE.
Cool to 70°C and add 2 ml of sterile 1% Potassium Tellurite Solution and 5 ml of sterile defibrinated blood.
Maintain at 70°C for a few minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Basal medium: Yellow coloured clear to slightly opalescent gel. After Addition of blood & Tellurite and on heating : Brownish red coloured opaque gel forms in Petri plates.
pH (at 25°C)	: 8.5±0.2

INTERPRETATION

Culturalcharacteristics observed after incubation with added 1% Potassium Tellurite Solution and sterile defibrinated blood.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Bacillus subtilis	6633	>=10^3	Inhibited	0%	35-37°C	18-24 Hours
Escherichia coli	25922	>=10^3	Inhibited	0%	35-37°C	18-24 Hours
Proteus mirabilis	25933	>=10^3	Inhibited	0%	35-37°C	18-24 Hours
Pseudomonas aeruginosa	27853	>=10^3	Inhibited	0%	35-37°C	18-24 Hours
Vibrio cholerae	15748	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
Vibrio parahaemolyticus	17802	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours

PACKAGING:

Inpacksizeof500 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.

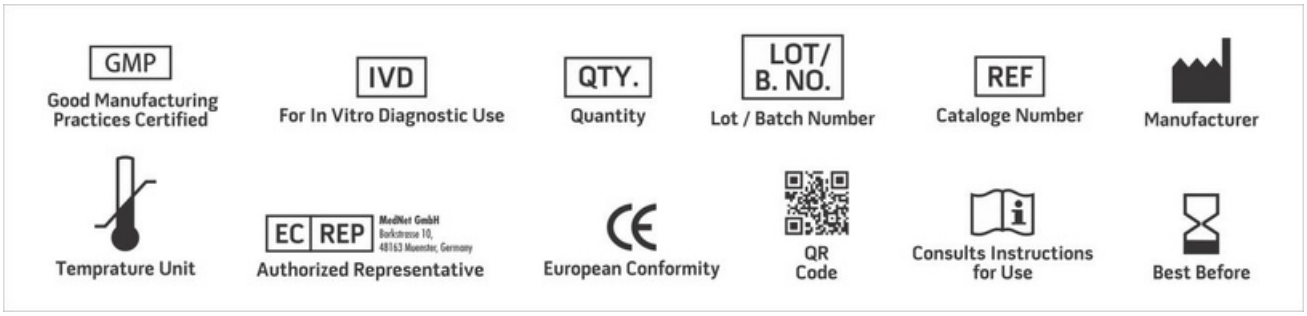
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Felsenfeld O. and Watanabe Y., 1958, U.S. Armed Forces Med. J., 9 (7): 975.
2. Isenberg, H. Clinical Microbiology Procedures Handbook. 2nd Edition.



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

*For LabUse Only