

CM 21177 - MEHLMAN'S MAINTENANCE MEDIUM

INTENDED USE

Maintenance of Campylobacter species.

PRODUCT SUMMARY AND EXPLANATION

Campylobacter is a genus of gram-negative bacteria carried in the intestinal tract of animals and therefore contaminate foods of animal origin. Infection with Campylobacter species is one of the most common causes of human bacterial gastroenteritis. Organisms in the genus Campylobacter were originally classified in the genus Vibrio. Most strains now associated with acute gastroenteritis in humans and having the ability to grow at 42°C were originally described as related Vibrios. Mehlman's Maintenance Medium formulated by Mehlman is recommended by APHA for the maintenance of Campylobacter species.

COMPOSITION

Ingredients	Gms / Ltr
Proteose peptone	15.000
Yeast extract	7.500
Casein enzymic hydrolysate	5.000
Dipotassium phosphate	5.000
Soluble starch	1.000
Ammonium sulphate	1.500
Neutral red	0.020
Agar	3.000

PRINCIPLE

The medium contains nitrogenous nutrients such as proteose peptone, yeast extract and casein enzymic hydrolysate. The medium contains starch, which helps to neutralize any toxic metabolites formed. Energy sources such as dextrose are absent. Neutral red is the pH indicator. Dipotassium phosphate helps in maintaining buffering action of the medium. Mehlman's Maintenance Medium can also be used for storage of stock cultures for up to one month without serial passage at room temperature after cells are grown at 42°C for 24 hours. Transfer weekly or when most of the medium turns yellow.

INSTRUCTION FOR USE

Dissolve 38.02 grams in 1000 ml distilled water.

Heat to boiling to dissolve the medium completely.

Dispense in 8 ml amounts in screw-capped tubes.

Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

Cool to 45-50°C and aseptically add 0.2 ml filter sterilized 2.5% sodium sulphite solution to each tube. Mix gently.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to beige homogeneous free flowing powder.
Appearance of prepared medium	: Orange red coloured clear to slightly opalescent solution in tubes.
pH (at 25°C)	: 7.3±0.2

INTERPRETATION



Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Campylobacter coli	33559	50-100	Good-luxuriant	35-37°C	1 week
Campylobacter jejuni	29428	50-100	Good-luxuriant	35-37°C	1 week

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.

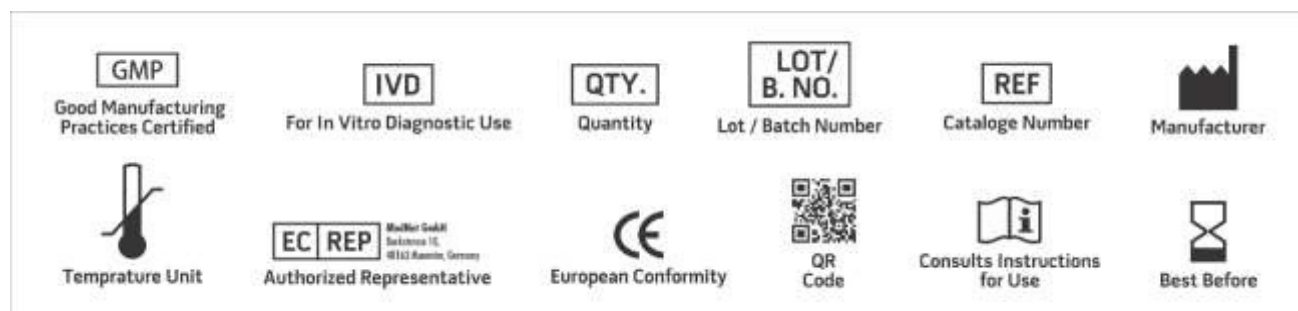
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

- King E. O., 1957, J. Infect. Dis., 101: 119. Mehlman I. J. and Romero A., 1982, Appl. Environ. Microbiol., 43: 615-618.
- Speck M. L., (Eds.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., APHA, Washington, D.C.



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

*For Lab Use Only

