

## TM 1041 - MEHLMAN'S MAINTENANCE MEDIUM

### INTENDED USE

For 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 upto 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 |
|-----------------------------|-------|-------------------|----------------|------------------------|-------------------|
| <i>Campylobacter coli</i>   | 33559 | 50-100            | Good-luxuriant | 35-37°C                | 1 week            |
| <i>Campylobacter jejuni</i> | 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.

|  |  |  |   |  |   |
|--|--|--|---|--|---|
| <br>GMP<br>Good Manufacturing Practices Certified | <br>IVD<br>For In Vitro Diagnostic Use  | <br>QTY.<br>Quantity    | <br>LOT/<br>B. NO.<br>Lot / Batch Number | <br>REF<br>Catalogue Number       | <br>Manufacturer |
| <br>Temperature Unit                              | <br>EC REP<br>Authorized Representative | <br>European Conformity | <br>QR Code                              | <br>Consults Instructions for Use | <br>Best Before  |

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

**\*For Lab Use Only**  
**Revision: 08 Nov., 2019**