

M-Endo Medium

MF010/E*/F[▽]

Intended use

For detection and enumeration of *E. coli* and coliforms.

Directions

The test sample should be filtered through a sterile membrane filter having pore size of 0.45 μ . Rehydrate the nutrient pad with 2.0-2.5 ml sterile distilled / purified water. After filtration, remove the membrane filter aseptically using sterile forceps. Place the membrane filter on rehydrated nutrient pad. Incubate the inoculated nutrient. Interpret the results qualitatively by observing the presence or absence of growth and quantitatively by counting the number of colonies on the surface of the membrane filter and calculating CFU/ml.

Principle And Interpretation

Field of Application: Water (Standard TNV 75, 7837, 2002), food and other samples. DriFilter Membrane Nutrient Pad Medium is ready to use sterile culture media in the form of a 50 mm biological inert absorbent pads impregnated with M-Endo medium, then dried and sterilized in 55 mm petri plate. They eliminate the need of laborious media preparation and autoclaving procedures. The nutrient pads are to be just rewetted with sterile distilled water and are ready to use. Use of nutrient pads allows larger sample volumes to be tested at a time. Interpretation of results is directly by counting the CFUs and also quantifies the microbial load present in the sample. M-Endo medium was used for studying milk lines of milk handling equipment (1) and for examination of swimming pool (2) waters using membrane filter technique. This medium gives higher counts and is most satisfactory of the many media used, since coliform colonies develop rapidly (3), preliminary enrichment and saturated relative humidity are not necessary and results are in good agreement with the Standard Methods MPN Test.

Type of specimen

Water samples

Specimen Collection and Handling

For water samples follow appropriate techniques for handling specimens as per established guidelines (1,2). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Due to varying nutritional requirements, some strains may be encountered that grow poorly.
2. If the inoculum is too heavy, the sheen may be suppressed.
3. Occasionally, non coliform organisms may produce typical sheen colonies. Coliform organisms may also occasionally produce atypical colonies, including dark red or nucleated colonies without sheen.
4. Further serological and biochemical testing is necessary for complete identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Dry filter membrane pad of 50mm diameter

Colour

Purple coloured nutrient pad

Sterility check

Passes release criteria

Cultural response

Cultural characteristics observed after incubation at 35-37°C for 18-24 hours

Organism	Growth	Colour of colony
<i>Klebsiella pneumoniae</i> ATCC 13883 (00097*)	Luxuriant	Pink,mucoid
<i>Salmonella</i> Typhimurium ATCC 14028 (00031*)	Luxuriant	Colourless
<i>Escherichia coli</i> ATCC 25922 (00013*)	Luxuriant	Pink with metallic sheen

Key: (*) - Corresponding WDCM numbers.

Storage and Shelf Life

On receipt store between 10-30°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (5,6).

Reference

1. Olson, Brown and Mickle, 1960, J., Milk and Food Tech., 23:86.
2. Shipe E. L. and Fields A., 1955, Public Health Lab., 13:44.
3. Slanetz L. W. and Bartley C. H., 1955, Applied Microbiol., 3:46.
2. Shipe E. L. and Fields A., 1955, Public Health Lab., 13:44.
3. Slanetz L. W. and Bartley C. H., 1955, Applied Microbiol., 3:46.
4. Lipps WC, Braun-Howland EB, Baxter TE, eds. Standard methods for the Examination of Water and Wastewater, 24th ed. Washington DC:APHA Press; 2023.
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
6. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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Note:

MF000 - Sterile pad packed individually in sterile Petri plate without Membrane Filter

MF000E* - Sterile pad packed individually in sterile disposable plastic bag without Membrane Filter

MF000F[▽] - Sterile pad packed individually in sterile Petri plate with sterile Membrane Filter (0.45 mm).

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.