

M-Endo Medium w/ Sterile Membrane Filter

MF010F

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

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	20.000
Yeast extract	6.000
Lactose	25.000
Dipotassium phosphate	7.000
Basic fuchsin	1.000
Sodium sulphite	2.500

**Formula adjusted, standardized to suit performance parameters

Directions

The test sample should be filtered through a sterile membrane filter having pore size of 0.45µ. 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. Peptic digest of animal tissue and yeast extract provide essential nutrients especially nitrogenous for the coliforms. Lactose is the fermentable carbohydrate. Sodium sulphite and Basic fuchsin inhibit the growth of gram-positive organisms. Phosphates buffer the medium. Coliforms ferment lactose and the resulting acetaldehyde reacts with sodium sulphite and basic fuchsin to form red colonies and similar colouration of the medium. Lactose non-fermenters form colourless colonies.

Quality Control

Appearance

Dry filter membrane pad of 50mm diameter

Colour

Purple coloured nutrient pad

Sterility test

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	Luxuriant	Pink, mucoid
<i>S. serotype Typhimurium</i> ATCC 14028	Luxuriant	Colourless
<i>Escherichia coli</i> ATCC 25922	Luxuriant	Pink with metallic sheen

Storage and Shelf Life

Store between 10-30°C. Use before expiry date on the label.

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.



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