Technical Information

M-Endo MiVeg Broth MF (MF Endo MiVeg™ Medium)

Product Code : VM2103

Application:- M-Endo MiVeg Broth MF is used in the one step membrane filter technique for the enumeration of coliform bacteria in water.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate No. 1	10.0
MiVeg hydrolysate	5.0
MiVeg special peptone	5.0
Yeast extract	1.5
Lactose	12.5
Synthetic detergent No. III	0.1
Dipotassium phosphate	4.375
Monopotassium phosphate	1.375
Sodium chloride	5.0
Sodium lauryl sulphate	0.05
Sodium sulphite	2.1
Basic fuchsin	1.05
Final pH (at 25°C)	7.2±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

M-Endo MiVeg Broth MF is prepared by using vegetable peptones in place of animal based peptones which makes it free from BSE / TSE risks. This medium is the modification of M-Endo Broth MF which is a selective and differential medium for the detection of coliforms by the membrane filter technique (1). Preliminary enrichment on a non-selective medium is not required for this medium. It is a medium of choice for the determination of coliform bacteria in water and other specimens.

This medium contains MiVeg hydrolysate No.1, yeast extract, MiVeg special peptone and MiVeg hydrolysate which supplies essential nutrients, mainly nitrogenous nutrients. Synthetic detergent No. III present in the medium inhibits gram-positive bacteria. Lactose fermenting bacteria forms pink colonies with metallic sheen on this medium.

Methodology

Suspend 48 grams of powder media in 1000 ml distilled water containing 20 ml ethanol. Mix thoroughly. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to room temperature and dispense about 2 ml onto sterile absorbent pads. This medium should be used on the same day it is prepared and should be protected from bright light.

Caution : Basic fuchsin is a potential carcinogen and care must be taken to avoid inhalation and contamination of the skin.

Quality Control

Physical Appearance

Purple coloured, homogeneous, free flowing powder.

Colour and Clarity of prepared medium

Pinkish red coloured, opalescent solution without any precipitate.

Reaction

Reaction of 4.8 % w/v aqueous solution pH: 7.2 ±0.2 at 25°C

pH range

7.0-7.4

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony*
Escherichia coli (25922)	10-10²	luxuriant	pink with metallic sheen
Salmonella serotype Typhimurium (14028)	10-10²	luxuriant	colourless to slightly pink
Staphylococcus aureus (25923)	10-10²	luxuriant	-

Key : * = on membrane filter

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

1. Eaton A.D., Clesceri L.S. and Greenberg A.E., (ed.), 1998, Standard Methods for the Examination of Water and Wastewater, 20th ed, APHA, Washington, D.C.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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