

M-Endo HiVeg™ Broth MF (MF Endo HiVeg™ Medium) (M-Coliform HiVeg™ Broth)

MV1103

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

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate No. 1	10.0
HiVeg hydrolysate	5.0
HiVeg 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.

Directions :

Suspend 48 grams in 1000 ml distilled water containing 20 ml ethanol. 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.

Principle and Interpretation :

M-Endo HiVeg Broth MF is prepared by completely replacing animal based peptones with vegetable peptones. M-Endo HiVeg Broth MF 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 in case of M-Endo HiVeg Broth MF and this is a medium of choice for the determination of coliform bacteria in water and other specimens.

Essential nutrients are supplied by HiVeg hydrolysate No. 1, yeast extract, HiVeg special peptone and HiVeg hydrolysate. They provide mainly nitrogenous nutrients. Synthetic detergent No. III inhibits gram-positive bacteria. Coliforms ferment lactose and form pink colonies with metallic sheen on this medium.

Product Profile :

Vegetable based (Code MV)Ⓞ	Animal based (Code M)
MV1103 HiVeg hydrolysate No. 1 HiVeg hydrolysate HiVeg special peptone Synthetic detergent No. III	M1103 Tryptose Casein enzymic hydrolysate Peptone special Sodium deoxycholate
Recommended for	: Enumeration of coliform bacteria in water by the membrane filter technique.
Reconstitution	: 48.0 g/l
Quantity on preparation (500g)	: 10.41 L
pH (25°C)	: 7.2 ± 0.2
Supplement	: Ethanol
Sterilization	: Boiling (DO NOT AUTOCLAVE)
Storage	: Dry Medium - Below 30°C, Use freshly prepared Medium.

Quality Control :

Appearance of powder

Purple coloured, homogeneous, free flowing powder.

Colour and Clarity

Pinkish red coloured, opalescent solution without any precipitate.

Reaction

Reaction of 4.8% w/v aqueous solution containing 2.0% v/v ethanol is pH 7.2 ± 0.2 at 25°C.

Cultural Response

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony*
<i>Escherichia coli</i> (25922)	10-10 ²	luxuriant	pink with metallic sheen
<i>Salmonella</i> serotype Typhimurium (14028)	10-10 ²	luxuriant	colourless to slightly pink
<i>Staphylococcus aureus</i> (25923)	10-10 ²	luxuriant	-

Key : * = on membrane filter

References :

- 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.