M-FC HiVeg™ Agar Base / Broth Base MV1122 / MV1111

M-FC HiVeg Agar Base / Broth Base is used for the detection and enumeration of faecal coliforms using membrane filter technique at higher temperature

Composition ** :

Ingredients	MV1122 Grams/Litre	MV1111 Grams/Litre
HiVeg hydrolysate No. 1	10.00	10.00
HiVeg peptone No. 3	5.00	5.00
Yeast extract	3.00	3.00
Lactose	12.50	12.50
Synthetic detergent No. I	1.50	1.50
Sodium chloride	5.00	5.00
Aniline blue	0.10	0.10
Agar	15.00	—

Final pH (at 25°C) 7.4 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 52.1 grams of MV1122 or 37.1 grams of MV1111 in 1000 ml distilled water containing 10 ml 1% Rosolic Acid (FD058). Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45°C and add 2 ml of M-FC Broth on sterile absorbent pad placed in a sterile petri plate.

Principle and Interpretation :

M-FC HiVeg Agar Base/Broth Base is prepared by using vegetable peptones in place of animal based peptones which makes the media free of BSE/TSE risks. These media are the modifications of M-FC Agar Base/ Broth Base which were designed by Geldreich, Clark, Huff and Bert (1) and recommended by APHA (2) for the detection and enumeration of faecal coliforms using membrane filter technique. Faecal coliforms are differentiated from coliforms from environmental sources by their ability to grow at 44.5 + 0.5°C (2). Faecal coliforms give blue coloured colonies

HiVeg peptone No. 3, HiVeg hydrolysate No. 1 and yeast extract provide necessary nutrients for the growth of faecal coliforms. Lactose is the carbon source as well as fermentable carbohydrate in the medium. Synthetic detergent No. I inhibits the growth of contaminating gram-positive microorganisms. Aniline blue and Rosolic acid (FD058) are the differential indicators

Quality Control :

Appearance of powder

Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel of MV1122.

Colour and Clarity

With addition of rosolic acid, red coloured slightly opalescent gel forms in petri plates, clear solution in tubes.

Reaction

Reaction of 5.21% w/v of MV1122 or 3.71% w/v of MV1111 aqueous solution is pH 7.4 ± 0.2 at 25°C.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV1122/MV1111 HiVeg hydrolysate No. 1 HiVeg peptone No. 3 Synthetic detergent No. I	**M1122/M1111** Tryptose Proteose peptone Bile salts mixture

Recommended for	:	Detection and enumeration of faecal coliforms using membrane filter technique at higher temperature.
Reconstitution	:	(MV1122) : 52.1 g/l
	:	(MV1111) : 37.1 g/l
Quantity on preparation (500g)	:	(MV1122) : 9.59 L
	:	(MV1111) : 13.47 L
pH (25°C)	:	7.4 ± 0.2
Supplement	:	Rosolic acid (FD058)
Sterilization	:	Boiling (DO NOT AUTOCLAVE)

Storage : Dry Medium - Below 30°C, Use freshly prepared medium.

Cultural Response

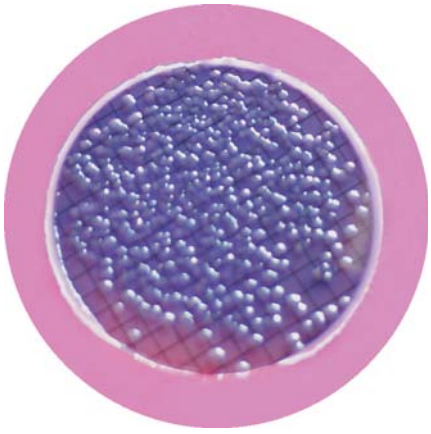
Cultural characteristics observed after an incubation for 22 - 24 hours at ...

Organisms (ATCC)	Inoculum (CFU)	Growth at 35°C	Recovery at 35°C	Colour of the colony*	Growth at 45.5°C	Recovery at 45.5°C
Escherichia coli (25922)	10-100	luxuriant	>50%	light blue	luxuriant	>50%
Salmonella serotype Typhimurium (14028)	10-100	luxuriant	>50%	pinkish	inhibited	0%
Shigella flexneri (12022)	10-100	luxuriant	>50%	pinkish	inhibited	0%
Enterococcus faecalis	10^3-2x10^3 (29212)	inhibited	0%	—	inhibited	0%

Key : * = on membrane filter

References :

1. Geldreich, Clark, Huff and Bert, 1965, J.Am. Water Works Assoc., 57:208.
2. Eaton A.D., Clesceri L.S. and Greenberg A.E., (ed.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st ed, APHA, Washington, D.C.



MV1122 M-FC HiVeg Agar Base
Escherichia coli

◉ Prepared from GMO free Vegetable proteins replacing Animal based peptones. Freedom from BSE/TSE worries.