43291 M-FC Agar, Vegitone (Vegitone M-FC Agar; m-Fecal Coliform Agar, Vegitone)

M-FC Agar is used for the detection and enumeration of faecal coliforms using membrane filter technique at higher temperature. In this modified medium the animal derived materials are replaced by plant peptones.

Composition:

Ingredients	Grams/Litre
Tryptose (vegetable)	10.0
Proteose Peptone (vegetable)	5.0
Yeast extract	3.0
Lactose	12.5
Synthetic detergent	1.5
Sodium chloride	5.0
Aniline blue	0.1
Agar	15.0
Final pH 7.4 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Appearance:	Yellow coloured, homogeneous, free flowing powder.
Gelling:	Firm, comparable with 1.5% Agar gel.
Colour and Clarity:	With addition of rosolic acid, red coloured slightly opalescent gel / solution forms in petri plates / tubes.

Directions:
Dissolve 52.1 g in 1 litre distilled water and heat to boiling to dissolve completely. Add 10 ml of a 1 % solution of rosolic acid (Cat. No. 861324) in 0.2 N NaOH. Continue heating for 1 minute with frequent agitation. Do not autoclave! Cool to 45-50°C. Dispense 4 ml amounts into Petri dishes (50-60mm) and allow to solidify.

Principle and Interpretation:
M-FC Agar / Broth was designed by Geldreich, Clark, Huff and Bert (1). It is recommended by APHA (2) for the detection and enumeration of faecal coliforms using membrane filter technique.
Tryptose (vegetable), Proteose Peptone (vegetable) and yeast extract provide necessary nutrients for the growth of faecal coliforms. Lactose is the carbon source in the medium. Synthetic detergent inhibits the growth of contaminating gram-positive microorganisms. Aniline blue is a triphenyl methane dye which suppresses the growth of many gram-positive microorganisms.

Cultural characteristics after 22-24 hours

Organisms (ATCC)	Growth at 35°C	Growth at 45°C	Color of Colony
Escherichia coli (25922)	+++	+++	light blue
S. serotype Typhimurium (14028)	+++	-	pinkish
Shigella flexneri (12022)	+++	-	pinkish
Enterococcus faecalis (29212)	-	-	-

References:

1. Geldreich, Clark, Huff, Bert, J. Am. Water Works Assoc., 57, 208 (1965)
2. A.E. Greenberg, R.R. Trussell, L.S. Clesceri (Eds.), Standard Methods For the Examination of Water and Wastewater, 16th ed., APHA, Washington, D.C. (1985)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.