

96961 mFC Agar (m-faecal Coliform Agar, Membrane Fecal Coliform Agar)

mFC Agar is used for the detection and enumeration of faecal coliforms using membrane filter technique. This medium is recommended by APHA.

Composition:

Ingredients	Grams/Litre
Proteose peptone	5.0
Tryptose	10.0
Yeast extract	3.0
Sodium chloride	5.0
Bile salts	1.5
Lactose	12.5
Methyl blue	0.1
Agar-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.

Directions:

Dissolve 52 g in 1 litre distilled water and heat to boiling to dissolve completely. Add 10 ml of a 1 % solution of rosolic acid 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. Incubate the plates for 22-24 hours at 44.5-45.5°C.

Principle and Interpretation:

Proteose peptone, Tryptose and Yeast extract acts as source of carbon, nitrogen, minerals, vitamins and other essential growth nutrients. Lactose is the fermentable carbohydrate. mFC Agar contains Bile salts inhibits the accompanying gram-positive bacteria. Methyl blue is a triphenyl methane dye which suppresses the growth of many gram-positive bacteria. mFC Agar. The indicator system is based on the color change of methyl blue and rosolic acid. The high incubation temperature makes the test more selective.

Cultural characteristics after 22-24 hours at 44.5-45.5°C.

Organisms (ATCC)	Growth	Color of colonies
<i>Escherichia coli</i> (25922)	+++	blue to dark-blue
<i>Salmonella typhimurium</i> (14028)	-	pinkish
<i>Shigella flexneri</i> (12022)	-	pinkish
<i>Enterococcus faecalis</i> (29212)	-	-

References:

1. E.E. Geldreich, H.F. Clark, C.B. Huff, L.C. Best, J. Am. Water Works Assoc., 57, 208 (1965)
2. A.E. Greenberg, R.R. Trussel, L.S. Clesceri (Eds.), Standard Methods for the Examination of Water and Wastewater, 16th ed., APHA Washington D.C.
- 3.

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.

