

# mFC (membrane Fecal Coliforms) Agar



Medium used for the identification and determination of fecal coliforms from water by membrane filter technique.

## • CONTENTS (Liter)

Tryptose	10.0 g
Proteose Peptone No.3	5.0 g
Yeast Extract	3.0 g
Lactose	12.5 g
Sodium Chloride	5.0 g
Bile Salts No.3	1.5 g
Aniline Blue	0.1 g
Agar	15.0 g
Final pH = 7.4 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 52.1 G of powder in 1 L of distilled or deionized water. Aseptically add 2 vials of Rosolic Acid supplement (MB-R1829). Heat to boiling until completely dissolved. DO NOT AUTOCLAVE. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes.

### Rosolic Acid supplement

1 vial content (each vial is sufficient for 500mL of medium)

Rosolic Acid 0.05 g

## • INTERPRETATION

mFC (Membrane Fecal Coliforms) Agar is a medium used for the identification and determination of fecal coliforms from water by the membrane filter technic. Tryptose, proteose peptone No.3 and yeast extract provide essential sources of nitrogen and other growth nutrients. Lactose is a carbohydrate. Sodium chloride maintains the osmotic balance. Bile salts No.3 inhibits Gram-positive organisms. The indicator system is based on the color change of methyl blue and rosolic acid. Agar is the solidifying agent.

## • TECHNIC

Inoculate the plates with spreading the specimen on surface of medium using a sterile loop. Incubate at 44.5 ± 0.5°C for 24 ± 2 hours. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: greyish-beige

### Prepared medium

Appearance: clear, slightly opalescent

Color: red

Incubation conditions: : 44.5 ± 0.5°C / 24 ± 2 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
<i>Escherichia coli</i>	25922	50-100	good	blue colonies
<i>Salmonella typhimurium</i>	14028	50-100	good	pinkish colonies
<i>Shigella flexneri</i>	12022	50-100	good	pinkish colonies
<i>Enterococcus faecalis</i>	29212	≥10 <sup>3</sup>	inhibited	-
<i>Staphylococcus aureus</i>	25923	≥10 <sup>3</sup>	inhibited	-

## • STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

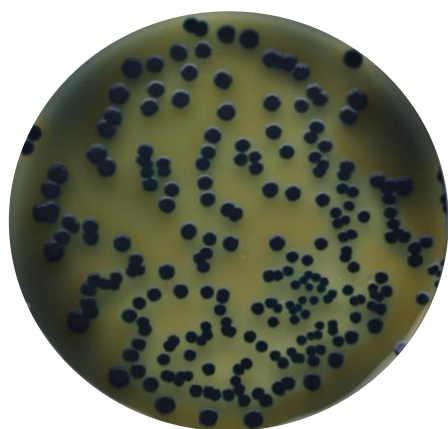
## • REFERENCES

1. APHA (1985). Standard Methods of the Examination of Water and Wastewater, 16th Edition.
2. Gildreich, E.E., H.F. Clarck, C.B. Huff, and L.C. Best (1965). J. Am. Waters Works Ass. 57, 208.

## • PACKAGE

Cat. No : MB-F1412 mFC (Membrane Fecal Coliforms) Agar	500 G
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## • MICROBIAL CULTURE IMAGES



*Escherichia coli* ATCC 25922



*Shigella flexneri* ATCC 12022



*Enterococcus faecalis* ATCC 29212

Incubation conditions :  $44.5 \pm 0.5^{\circ}\text{C}$  /  $24 \pm 2$  hours