Technical Data Sheet

m-FC Broth without Rosolic Acid – 2mL Liquid Media Ampoules
Cat. No. MHA00FCR2

This medium is recommended for testing waste and effluent waters for fecal coliforms.

Mode of Action
m-FC Broth without Rosolic Acid is used for the detection and enumeration of fecal coliforms in water and other liquid samples by membrane filtration technique. This medium is based on the property that fecal coliforms grow at 44-45°C. Enzymatic digestion of animal tissue provide nitrogen, carbon, and minerals in M-FC Broth without Rosolic Acid. Yeast Extract is a source of vitamins and trace elements. Sodium Chloride maintains the osmotic balance. Lactose serves as a carbohydrate source. Bile Salts inhibit growth of Gram-positive bacteria. Eliminating rosolic acid improves the procedure by allowing higher fecal coliform colony recoveries with greater ease as well as providing a sharper contrast between the vivid blue fecal colonies and the grey to cream colored non-fecal colonies.

Typical Composition (per liter of purified water)

Biosate Peptone	10.0 g	Bile Salts	1.5 g
Polypeptone Peptone	5.0 g	Aniline Blue	0.1 g
Yeast Extract	3.0 g		
Lactose	12.5 g		
Sodium Chloride	5.0 g		

Application
1. Collect the water sample in a sterile container. Sodium thiosulfate is necessary when the water sample contains a residual disinfectant. The sample should be a 100 ml minimum where low levels of bacteria are present, the sample should be less for non-potable water or water that contains more bacteria.
2. Invert one m-FC Broth without Rosolic Acid ampoule 2 to 3 times. Open the ampoule. Remove the lid of a petri dish and carefully pour the contents equally onto the absorbent pad.
3. Set up the membrane filtration apparatus. Use sterile forceps to put the membrane filter in the assembly. The grid side is up.
4. Invert the sample / diluted sample for approximately 30 seconds to thoroughly mix the sample.
5. Pour the sample / diluted sample into the funnel. If the volume is less than 20ml, add 10 ml of sterile buffered dilution water to the funnel.
6. Apply the vacuum until the funnel is empty. Then stop the vacuum.
7. Rinse the funnel with 20ml to 30ml of sterile buffered dilution water. Apply the vacuum. Rinse the funnel two more times.
8. Stop the vacuum when the funnel is empty. Remove the funnel from the assembly. Use sterile forceps to lift the membrane filter.
9. Put the membrane filter on the absorbent pad. Let the membrane filter bend and fall equally across the absorbent pad to make sure that the air bubbles are not trapped below the filter.
10. Secure the lid on the petri dish and invert the dish.
11. Incubate the inverted petri dish for 24 +/- 2 hours at 44.5 +/- 0.5° C.
12. Remove the petri dish from the incubator. Use a microscope to count the number of bacteria colonies on the membrane filter.
13. Interpret and report the results.

Results Reporting
Report the colony density as the number of colonies in 100ml of sample. If there's more than 200 colonies, dilute the sample and use the diluted sample in the test procedure.

Colonies in 100ml = Colonies counted / ml of sample x 100.

Storage and Shelf Life
The product can be used until the expiry date if the unopened ampoules are stored sealed in the aluminum foil bag at 2 – 10°C.

Disposal
Please dispose of used culture medium in accordance with local regulations (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

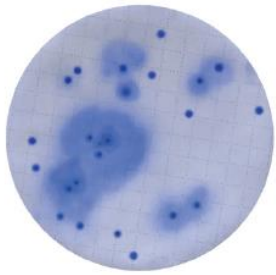
Quality Control

Function	Control Strains	Incubation	Reference Medium	Method of Control	Expected Results
Productivity	*Escherichia coli* ATCC® 25922 WDCM 00013	24 +/- 2 hours at 44.5 +/- 0.5° C	Previously validated batch of m-FC Broth without Rosolic Acid	Quantitative	Recovery 85-115% Characteristic colonies
Selectivity	Mixed culture, (*E. coli, Ps aeruginosa*, and *Pr. Vulgaris*)			Qualitative	Recovery of E. coli with other organisms inhibited

Please refer to the actual batch specific certificate of analysis.

Fecal coliforms are blue colonies.
Other colonies will form gray to cream colored colonies.
In some rare cases, confirmed fecal coliforms are pink.

m-FC Broth



Ordering Information

Product	Cat. No.	Pack size
m-FC Broth without Rosolic Acid	MHA00FCR2	50 x 2 mL plastic ampoules

Literature

Geldreich EE et al (1965): Fecal coliform organism medium for the membrane filter technique. American Water Works Association. 57:2. 208-214.

Lit. No. MS_PF7002EN