

## TM 1914 - M - 7 HR FC AGAR

### INTENDED USE

For examination of water and waste water.

### PRODUCT SUMMARY AND EXPLANATION

M7 Hr FC Agar is a modified method of Van Donsel et al and Reasoner et al, which is recommended by APHA for the examination of water and wastewater for the presence of faecal coliforms by the membrane filter technique. This medium has an advantage over other media to yield results in 7 hours that are generally comparable to those obtained by the standard coliform method. Thus this medium is accepted for assessment of the sanitary quality of water during emergencies involving water treatment plant failure or line breaks in a distribution network. It is reliable and has sensitivity levels equal to those of the standard tests routinely used.

After filtering a suitable or desired volume of water, the membrane is placed on the surface of plate and then incubated at 41.5°C for 7 hours. Faecal coliform form yellow colonies, indicating lactose fermentation.

MF technique has certain limitations, particularly when testing waters with high turbidity or non-coliform bacteria. For such waters or when the membrane filter technique has not been used previously, it is desirable to carry out parallel tests with the multiple tube fermentation technique to determine applicability and comparability.

### COMPOSITION

Ingredients	Gms / Ltr
Biopeptone	5.000
Yeast extract	3.000
Lactose	10.000
D-Mannitol	5.000
Sodium chloride	7.500
Sodium lauryl sulphate	0.200
Sodium deoxycholate	0.100
Bromo cresol purple	0.350
Phenol red	0.300
Agar	15.000

### PRINCIPLE

Biopeptone and yeast extract provide nutritional requirement to a wide variety of organisms. Lactose and mannitol are energy sources and sodium chloride maintains osmotic equilibrium of the medium. Sodium lauryl sulphate and sodium deoxycholate help to restrict the gram-positive and gram-negative bacterial flora present in water. Bromocresol purple and phenol red help as indicators in the detection of organisms. This is a solid culture medium for the rapid detection of faecal coliforms by membrane filtration method.

### INSTRUCTION FOR USE

- Dissolve 46.45 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely. Do not autoclave.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS



**Appearance of Powder** : Beige to purple homogeneous free flowing powder  
**Appearance of prepared medium** : Dark pinkish purple coloured clear to slightly opalescent gel forms in Petri plates  
**pH (at 25°C)** : 7.3±0.2

### INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of Colony	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	luxuriant	≥70 %	yellow	41.5°C	7-18 Hours
<i>Staphylococcus aureus</i>	25923	≥10 <sup>3</sup>	inhibited	0%	-	41.5°C	7-18 Hours
<i>Enterococcus faecalis</i>	29212	≥10 <sup>3</sup>	inhibited	0%	-	41.5°C	7-18 Hours

### PACKAGING:

In pack size of 100 gm and 500 gm bottles.

### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.













### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

### REFERENCES

1. Van Donsel D. J., Twedt R. M. and Geldrich E. E., 1969, Bacteriol.Proc. Abs. No. G46; p. 25.
2. Reasoner, D.J., Blannon J. C. and Geldrich E. B., 1979, Appl. Environ. Microbiol., 38:229.
3. Eaton A. D., Clesceri L. S., Rice E. W. and Greenberg A. W., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st Ed., APHA, Washington, D.C.



 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP MedNet GmbH Buckstrasse 10, 48163 Muenster, Germany Authorized Representative	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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