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MEMBRAN FILTRATION KIT
M- MACCONKEY AGAR

INTENDED USE:
Membrane filter technique is more convenient to work with high volume samples and count as well as conventional procedures.

PRINCIPLE AND INTERPRETATION:
Membrane filter technique is an effective, accepted technique for testing fluid samples for microbiological contamination. It involves less preparation than many traditional methods, and is one of a few methods that will allow the isolation and enumeration of microorganisms.

MacConkey agar is a selective and differential culture medium for bacteria designed to selectively isolate Gram-negative and enteric (normally found in the intestinal tract) bacilli and differentiate them based on lactose fermentation. The crystal violet and bile salts inhibit the growth of gram-positive organisms which allows for the selection and isolation of gram-negative bacteria. Enteric bacteria that have the ability to ferment lactose can be detected using the carbohydrate lactose, and the pH indicator neutral red.

TEST PROCEDURE:

Sample Volume : A sample volume of 50 to 100 ml should be selected.

Filtration Technique :

1. The filter set body is sterilized in an autoclave at 121 oC for 15-30 minutes and the filter assembly is installed.
2. Membrane filter is taken from the sterile pack with a sterile clamp.
3. Carefully placed in the container with the checkered side of the filter on top.
4. Turn on the vacuum and allow the sample to draw completely through the filter.
5. After the filtration process is finished, the membrane filter is taken carefully with the help of a sterile pliers.
6. Place the membrane filter into the prepared petri dish.
7. Incubate at the proper temperature and for the appropriate time period.

COMPOSITION OF MEDIA:

Ingredients	Gr/Liter
Peptone	20 gr
Lactose	10 gr
Bile salts	1,5 gr
Sodium chloride	5 gr
Neutral red	0,03 gr
Crystal violet	0,001 gr
Agar	15 gr

***Formula adjusted, standardized to suit performance parameters

pH: 7,2 ± 0,2

QUALITY CONTROL OF MEDIA:
1.Sterility Control:
Incubation 48 hours at 30-35ºC and 72 hours at 20-25ºC: NO GROWTH

2.Phsical/Chemical Control
pH: 7,2 ± 0,2
Apperance: Reddish purple

3.Microbiological Control: Incubation at 35± 2 °C during 24-48 h

Microorganism	Inoculum (CFU)	Results	
		Growth	Reaction
Escherichia coli ATCC 25922	10-100	Good	Red colonies with bile precipitation
Salmonella typhimurium ATCC 14028	10-100	Good	Colourless colonies
Pseudomonas aeruginosa ATCC 9027	10-100	Good	Colourless colonies
Staphylococcus aureus ATCC 25923	100-1000	Inhibition	Inhibition
Enterococcus faecalis ATCC 29212	100-1000	Inhibition	Inhibition

PRECAUTIONS:

For professional use only. Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

STORAGE CONDITIONS AND SHELF LIFE:

Store the prepared medium at 2 - 12°C. Use before expiry date on the label. Do not use beyond stated expiry date.

DISPOSAL:

Incubated prepared medium may contain active bacteria and micro-organisms. Do not open infected medium. Infected plate should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

PACKAGING:

Katalog Number: 06218
Packaging: Box
Content: 100 plates and 100 membran filters/each package

REFERENCES:

1. American Public Health Association (1998) Standard Methods for the Examination of Water and Wastewater. 20th Edn. APHA Inc. Washington DC.
2. American Public Health Association (1976) Compendium of methods for the Microbiological Examination of Foods. APHA Inc. Washington DC.
3. American Public Health Association (1978) Standard Methods for the Examination of Dairy Products. 14th Edn. APHA Inc. Washington DC.
4. Barnes Ella M. and Goldberg H. S. (1962) J. Appl. Bact. 25(1). 94-106.
5. Medrek T. F. and Barnes Ella M. (1962) J. Appl Bact. 25(2). 159-168.
6. Barnes Ella M. and Shrimpton D. H. (1957) J. Appl. Bact. 20(2). 273-285.
7. Thornley Margaret J. (1957) J. Appl. Bact. 20(2). 273-285.
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10. Trepeta A. W. and Edburg S. C. (1984) J. Clin. Microbiol. 19. 172-174.
11. Maddocks J. L. and Greenan M. J. (1975) J. Clin. Pathol. 28. 686-687

Aseptic Sterile

Batch Code

Catalogue Number

Negative Controls

Positive Controls


Use by


Temperature Limitation


Do not reuse


Contains sufficient for <n> tests


Look at user manual


Manufacturer