

MACCONKEY AGAR

INTENDED USE:

A selective medium giving excellent differentiation between coliforms and non-lactose fermenters with inhibition of Gram-positive micrococci.

PRINCIPLE AND INTERPRETATION:

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.

COMPOSITION:

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

PRECAUTIONS:

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

TEST PROCEDURE:

Streak the specimen as soon as possible after it is received in the laboratory. The streak plate is used primarily to isolate pure cultures from specimens containing mixed flora. Alternatively, if material is being cultured directly from a swab, roll the swab over a small area of the surface at the edge; then streak from this inoculated area. A nonselective medium such as Columbia Agar with 5% Sheep Blood must also be inoculated to provide an indication of other organisms present in the specimen. Incubate plates, protected from light, at 35 ± 2°C (do not use CO₂-enriched atmosphere with MacConkey Agar) for 18 to 24 h or longer if necessary.

QUALITY CONTROL:**1. Sterility Control:**

Incubation 72 hours at 20-25°C and 48 hours at 30-35°C: NO GROWTH

2. Physical/Chemical Control

pH: 7,2 ± 0,2

Appearance: Reddish purple

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

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: 02030

Packaging: Single wrap

Content: 10 plates/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.
8. Eddy B. P. (1960) J. Appl. Bact. 23(2). 216-249.
9. Anderson R. L., Graham D. R. and Dixon R. E. (1981) J. Clin. Microbiol. 14. 161-164.
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