

## MAC CONKEY AGAR

Selective medium for Gram- negative bacteria isolation and differentiation from water, dairy products and clinical specimens according to European Pharmacopoeia.

### TYPICAL FORMULA (g/L)

Pancreatic digest of casein	17.0
Peptone	3.0
Lactose	10.0
Bile Salts n°3	1.5
Sodium Chloride	5.0
Neutral Red	0.03
Crystal Violet	0.001
Agar	15.0
Final pH 7.1 ± 0.2	

### DESCRIPTION

**MAC CONKEY AGAR** is a selective medium for Gram- negative bacteria isolation and differentiation from water, dairy products and clinical specimens according to European Pharmacopoeia. The medium allows a good growth of *Salmonella* and *Shigella spp.*

### PRINCIPLE

Bile Salts and Crystal Violet inhibit the growth of Gram-positive bacteria: the staining mainly inhibits the growth of enterococci and staphylococci.

Lactose fermentation makes pH of the medium decrease with consequent precipitation of bile salts and absorption of neutral red.

### PREPARATION

Melt the content of the bottle in a boiling water-bath at 100°C (loosing the caps partially unscrewed) until completely dissolved. Cool to 45-50°C, mix well avoiding the formation of bubbles and aseptically distribute into Petri dishes. Allow the medium to solidify. Store the plates in tightly closed containers.

### TECHNIQUE

Inoculate the plates streaking the sample on the surface of the medium, incubate at 36+/-1°C in aerobiosis for 18-24 hours and observe the colonies. A longer incubation time can change microorganisms cultural characteristics.

### INTERPRETATION OF RESULTS

Coliforms cultivate with red-pink colonies surrounded by a halo of precipitation; lactose non-fermenting bacteria cultivate with colorless colonies.

### STORAGE

10-25°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

### WARNING and PRECAUTIONS

The product is not classified as hazardous by current legislation and does not contain harmful substances in concentrations of ≥1%. The product is designed for *In vitro* diagnostic use and must be used only by properly trained operators.

### DISPOSAL of WASTE

Disposal of waste must be carried out according to national and local regulations in force.

### REFERENCES

1. FDA (1995) Bacteriological Analytical Manual, 8<sup>th</sup> ed. Revision A, 1998.
2. United States Pharmacopoeia 24,2000. Microbial Limit Tests, 1814:1818.
3. NCCLS, december 1996 –Quality Assurance for Commercially Prepared Microbiological Culture Media-Second Edition; Approved Standard-M22-A2, Vol.16, N°16
4. European Pharmacopoeia 4<sup>th</sup> ed. 2002.



**Liofilchem s.r.l**

Via Scozia-Zona industriale - 64026 Roseto degli Abruzzi Tel. +39.085.8930745 - Fax +39.085.8930330  
Web site: <http://www.liofilchem.net> E-mail: [liofilchem@liofilchem.net](mailto:liofilchem@liofilchem.net)

## PRODUCT SPECIFICATIONS

### NAME

**MAC CONKEY AGAR**

### PRESENTATION

Glass bottles containing 500 ml of medium (code 470090).  
Glass bottles containing 200 ml of medium (code 412240).  
Glass bottles containing 100 ml of medium (code 402240).

### STORAGE

10-25°C

### PACKAGING

Code	Content	Packaging
470090	6 bottles x 500 ml	6 bottles in cardboard box
412240	6 bottles x 200 ml	6 bottles in cardboard box
402240	6 bottles x 100 ml	6 bottles in cardboard box

### pH OF THE MEDIUM

7.1 ± 0.2

### USE

**MAC CONKEY AGAR** is a selective medium for Gram- negative bacteria isolation and differentiation from water, dairy products and clinical specimens according to European Pharmacopoeia. The medium allows a good growth of *Salmonella* and *Shigella spp.*

### TECHNIQUE

Refer to technical sheet of the product.

### APPEARANCE of the MEDIUM

Pinkish-red medium, clear without precipitates.

### SHELF LIFE












2 years

### QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control  
7 days at 25 ± 1°C, in aerobiosis  
7 days at 36 ± 1°C, in aerobiosis
- Microbiological control  
Inoculum for productivity: 10-100 UFC/ml  
Inoculum for selectivity: 10<sup>4</sup>-10<sup>5</sup> UFC/ml  
Inoculum for specificity: ≤ 10<sup>4</sup> UFC/ml  
Incubation conditions: 18-24 h at 36 ± 1°C, in aerobiosis

Microorganisms		Growth	Color of colonies
<i>Escherichia coli</i>	ATCC 25922	Good	Red/pink
<i>Proteus mirabilis</i>	ATCC 25933	Good	Colorless
<i>Enterobacter aerogenes</i>	ATCC 13048	Good	Red
<i>Salmonella typhimurium</i>	ATCC 14028	Good	Colorless
<i>Enterococcus faecalis</i>	ATCC 19433	Inhibited	
<i>Staphylococcus aureus</i>	ATCC 25923	Inhibited	

### TABLE OF SYMBOLS

 In Vitro Diagnostic Medical Device	 Do not reuse	 Manufacturer	 Contains sufficient for <n> tests	Temperature limitation
 Catalogue number	 Fragile, handle with care	 Use by	 Caution, consult accompanying documents	   Batch code



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