

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, 8th 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 4th ed. 2002.



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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: 10⁴-10⁵ UFC/ml
Inoculum for specificity: ≤ 10⁴ 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

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



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