

MAC CONKEY BROTH MODIFIED

Selective medium for coliform detection in water and milk.

TYPICAL FORMULA (g/l)

Peptone	24.5
Lactose	10.0
Bile Salts n°3	1.5
Brom Cresol Purple	0.01

Final pH = 7.4 ± 0.2 at 25 °C.

DIRECTIONS

Suspend 36.0 g of powder in 1 liter of distilled or deionized water. Heat to boiling until completely dissolved. Dispense into final containers provided with Durham tubes. Sterilize in autoclave at 121 °C for 15 minutes.

DESCRIPTION

MAC CONKEY BROTH MODIFIED is a medium used in the presumptive phase for the presence of coliforms bacteria in water and foods, particularly suitable for samples with a high content of sodium chloride.

TECHNIQUE

Liquid specimens are inoculated into the medium as they are, while the solid ones should be homogenized. If the medium is greater than 1 ml use the medium at double strength. Incubate at 36 ± 1 °C for 24-48 hours. Coliform presence is shown by the appearance of a yellow color and the production of gas, which collects at the top of the Durham tube. For the differential coliform test, each MacConkey tube showing acid and gas is then subcultured into a fresh tube of MacConkey Broth and incubated at 44 ± 0.5 °C. Formation of gas within 48 hours is practically specific for *E. coli* and indicative of a fecal pollution of the water sample.

QUALITY CONTROL

Dehydrated medium

Appearance: free flowing, homogeneous.

Color: light beige.

Prepared medium

Appearance: clear.

Color: purple.

Incubation conditions: 36 ± 1 °C for 24-48 hours.

Microorganism	ATCC	Growth	Color	Gas
<i>Escherichia coli</i>	25922	good	yellow	+
<i>Klebsiella pneumoniae</i>	13883	good	yellow	+
<i>Pseudomonas aeruginosa</i>	27853	good	purple	-
<i>Staphylococcus aureus</i>	25923	none		
<i>Enterococcus faecalis</i>	19433	none		
<i>Proteus mirabilis</i>	12453	good	purple	-

STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident.

Store prepared tubes at 2-8 °C.

REFERENCES

1. ICSMF (1978). Microorganisms in foods: their significance and methods of enumeration. 2nd Ed.
2. Childs Eileen and Allen L.A. (1953). J. Hyg. Camb. **51 (4)**: 468-477.



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PRESENTATION









Product	REF	
MAC CONKEY BROTH MODIFIED (13.8 l)	610149	500 g
MAC CONKEY BROTH MODIFIED (2.7 l)	620149	100 g

TABLE OF SYMBOLS

LOT	Batch code	 Caution, consult accompanying documents	 Manufacturer	 Contains sufficient for <n> tests	 Keep away from heat source
REF	Catalogue number	 Fragile, handle with care	 Use by	 Temperature limitation	



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