

MAC CONKEY BROTH

Selective medium for coliform detection in water and milk.

TYPICAL FORMULA (g/l)

Peptone	20.0
Lactose	10.0
Bile Salts n°3	5.0
Sodium Chloride	5.0
Brom Cresol Purple	0.01
Final pH = 7.4 ± 0.2 at 25 °C.	

DIRECTIONS

Suspend 40.0 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. Sterilise in autoclave at 121°C for 15 minutes.

DESCRIPTION

MAC CONKEY BROTH is a medium used in the presumptive phase for the presence of coliforms bacteria in water and foods.

TECHNIQUE

Liquid specimens are inoculated into the medium as they are, while the solid ones should be homogenised. If the sample 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.



LIOFILCHEM s.r.l.

Via Scozia, Zona Ind.le - 64026, Roseto D.A. (TE) - ITALY

Phone +390858930745 Fax +390858930330

Website: www.liofilchem.net E-mail: liofilchem@liofilchem.net

PRESENTATION




Product	REF	
MAC CONKEY BROTH (12.5 l)	610171	500 g
MAC CONKEY BROTH (2.5 l)	620171	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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MAC CONKEY BROTH – MAC CONKEY SULTINYS

PARUOŠIMAS

40 g terpės suspenduojama viename litre distiliuoto vandens. Kaitinant maišoma, kol visiškai ištirpsta. Išpilstoma į mėgintuvėlius su plūdelėmis (Durham tipo). Sterilizuojama autoklavuojant 121° C temperatūroje 15 minučių.

PANAUDOJIMAS

MAC CONKEY SULTINYS yra diferencinė terpė koliforminiams mikroorganizmams aptikti vandenyje, maisto produktuose ir klinikiniuose mėginiuose. Naudojama pirminiam koliforminių mikroorganizmų aptikimui tiriamuose mėginiuose. Laktozę fermentuojančios bakterijos pakeičia terpės spalvą į ryškiai geltoną ir susidaro dujos. Tuo tarpu laktozės nefermentuojančios bakterijos nekeičia terpės spalvos ir nesusidaro dujos. Gramteigiamos bakterijos inhibuojamos dėl tulžies druskų.

KULTŪRŲ CHARAKTERISTIKOS PO 24-48 VALANDŲ INKUBACIJOS 36+/-1° C TEMPERATŪROJE

Mikroorganizmai	Augimas	Kolonijų spalva	Dujos
<i>Klebsiella pneumoniae</i> ATCC 13883	Geras	Geltona	+
<i>Escherichia coli</i> ATCC 25922	Geras	Geltona	+
<i>Pseudomonas aeruginosa</i> ATCC 27853	Geras	Violetinė	-
<i>Staphylococcus aureus</i> ATCC 25923	Slopinamas		
<i>Proteus mirabilis</i> ATCC 12453	Geras	Violetinė	-
<i>Enterococcus faecalis</i> ATCC 19433	Slopinamas		

Formulė (g/litre)

Peptonas 20

Laktozė 10

Tulžies druska Nr.3 5

Bromkrezolio violetas 0,01

Natrio chloridas 5

pH = 7,4 +/- 0,2

PRODUKTAS	KODAS	ĮPAKAVIMAS
MAC CONKEY BROTH	610171	500 g
	620171	100 g