



## MacConkey Agar without Salt

Differential medium for detection and isolation of Enterobacteriaceae, staphylococci and enterococci from clinical specimens such as urine.

### DESCRIPTION

MacConkey Agar without Salt (NaCl) is a differential medium particularly recommended for urine examination. This medium, in contrast to regular MacConkey Agar (ref. 10029), does not contain sodium chloride nor crystal violet, resulting in the prevention of *Proteus* species from spreading while certain Gram-positive bacteria, such as *Staphylococcus* and *Enterococcus* spp., are allowed to grow.

TYPICAL FORMULA*	(g/l)
Peptone	20.0
Lactose	10.0
Bile Salts	5.0
Agar	12.0
Neutral Red	0.075
Final pH 7.4 ± 0.2 at 25°C	

\*Adjusted and/or supplemented as required to meet performance criteria.

### METHOD PRINCIPLE

Peptone provides amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Lactose is the fermentable carbohydrate. Bile salts act as mild inhibitors of non-intestinal bacteria and contribute to inhibit the swarming of *Proteus* spp. Agar is the solidifying agent. Neutral red is the pH indicator.

### PREPARATION

Dehydrated medium Suspend 47.1 g of the powder in 1 liter of distilled or deionized water. Mix well. Heat to boil shaking frequently until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes.

### TEST PROCEDURE

Inoculate the plates by directly streaking the specimen on the agar surface. Incubate aerobically at 35 ± 2°C for 18-24 h

### INTERPRETING RESULTS

Lactose-nonfermenting organisms, such as *Salmonella*, *Shigella* and *Proteus* spp, form colorless or clear colonies.

Lactose-fermenting organisms, such as *E. coli* and *Klebsiella* spp, grow as pink to red colonies with or without a zone of precipitated bile.

Staphylococci cultivate with light pink-red colonies and enterococci with red colonies.

NOTE: The colonial characteristics described give presumptive identification only of the isolated organisms. It is necessary to subculture and carry out confirmation tests for final identification.

### APPEARANCE OF THE MEDIUM

Dehydrated medium: free-flowing, homogeneous, beige-pink.

Prepared medium: slightly opalescent, pinkish-red.

### STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed. Store prepared plates at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

### SHELF LIFE

Dehydrated medium: 4 years.

Ready-to-use plates: 6 months.

**QUALITY CONTROL**

Plates are inoculated with the microbial strains indicated in the QC table.

Inoculum for productivity: 50-100 CFU.

Incubation conditions: aerobically at 35 ± 2°C for 18-24 hours.

**QC Table.**

Microorganism		Growth	Specification
<i>Salmonella</i> Typhimurium	ATCC® 14028	Good	Colorless colonies
<i>Shigella flexneri</i>	ATCC® 12022	Good	Colorless colonies
<i>Proteus mirabilis</i>	ATCC® 12453	Good	Colorless colonies
<i>Escherichia coli</i>	ATCC® 25922	Good	Pink colonies with bile ppt
<i>Enterococcus faecalis</i>	ATCC® 29212	Good	Small reddish colonies
<i>Staphylococcus aureus</i>	ATCC® 25923	Good	Small to medium rose colonies

**WARNING AND PRECAUTIONS**

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is intended for *in vitro* diagnostic use only and must be used by properly trained operators.

**DISPOSAL OF WASTE**








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

**BIBLIOGRAPHY**

- Murray, Baron, Jorgensen, Landry and Pfaller ed. (2007) Manual of clinical microbiology, 9th ed. American Society for Microbiology, Washington, D.C.
- MacConkey A. (1905) Lactose-fermenting bacteria in faeces. J. Hygiene 8:333-379.

PRESENTATION	Category	Packaging	Ref.
MacConkey Agar	Plated media	20 x 90 mm plates	11508
MacConkey Agar	Dehydrated media	500 g	610223

**TABLE OF SYMBOLS**

<b>LOT</b> Batch code	<b>IVD</b> <i>In vitro</i> Medical Diagnostic Device	 Manufacturer	 Use by	 Fragile, handle with care
<b>REF</b> Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult Instruction For Use	 Do not reuse



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