

MacConkey Agar without Salt



Medium used for the identification and determination of Enterobacteriaceae, staphylococci, and enterococci from clinical specimens, especially urine.

• CONTENTS (Liter)

Peptone	20.0 g
Lactose	10.0 g
Bile Salts	5.0 g
Neutral Red	0.075 g
Agar	12.0 g
Final pH = 7.4 ± 0.2 at 25°C	

• PROCEDURE

Suspend 47.08 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes.

• INTERPRETATION

MacConkey Agar without Salt is a medium used for the identification and determination of Enterobacteriaceae, staphylococci, and enterococci from clinical specimens, especially urine. Peptone provides carbon, nitrogen, vitamins and minerals. Lactose is the fermentable carbohydrate. Bile Salts acts as mild inhibitor of most Gram-positive bacteria and inhibits the swarming of proteus spp. Neutral red is the pH indicator. Agar is the solidifying agent. Absence of crystal violet allows growth of staphylococci and enterococci and absence of salt contribute to inhibition of the spreading growth of proteus spp.

• TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 36 ± 1°C for 18 - 24 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: pinkish beige

Prepared medium

Appearance : slightly opalescent, may have slight precipitates

Color: reddish orange

Incubation conditions: 36 ± 1°C / 18 - 24 hours

Microorganism	ATCC	Inoculum CFU	Growth	Characteristics
<i>Escherichia coli</i>	25922	50-100	good	pink colonies
<i>Proteus mirabilis</i>	25933	50-100	good	light brown colonies, swarming inhibited, yellow to orange medium
<i>Shigella flexneri</i>	12022	50-100	good	light brown colonies, orange medium
<i>Salmonella typhimurium</i>	14028	50-100	good	light brown colonies, orange medium
<i>Enterococcus faecalis</i>	29212	≥10 ³	fair to good	pale pink colonies
<i>Staphylococcus aureus</i>	25923	≥10 ³	fair to good	rose colonies

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

• REFERENCES

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• PACKAGE

Cat. No : MB-M1128 MacConkey Agar without Salt	500 G
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