

MacConkey Agar with sorbitol

Selective and differential medium for the research of *E. coli* 0157:H7

Formula in grams per liter:

Gelatin Peptone	20,00	Sorbitol	10,00
Sodium Chloride	5,00	Bile Salts N° 3	1,50
Neutral Red	0,03	Crystal Violet	0,001
Bacteriological Agar	15,00		

Final pH: 7,1 ± 0,2 at 25 °C

Preparation:

Suspend 51,5 grams of the medium in one liter of distilled water. Heat to boiling with frequent agitation until totally dissolved. Dispense and sterilize at 121° C (15 lbs psi) for 15 minutes. Distribute into sterile Petri dishes. If needed, allow the plate surface to dry.

Uses:

Sorbitol MacConkey Agar is based on the formula developed by Rappaport & Henig. This medium is recommended for the research of *E. coli* 0157:H7. The composition is similar to MacConkey Agar but the lactose has been substituted by sorbitol. *E. coli* 0157:H7 does not ferment the sorbitol and therefore produces colourless colonies. Most of the other *E. coli* do ferment it and therefore their colonies are pink.

E. coli 0157:H7 has been recognized as being responsible for haemorrhagic colitis, characterized by a bloody diarrhea with intense abdominal ache.

Optimal temperature for *E. coli* 0157:H7 is 35°C - 37°C.

Microbiological Tests:

Microorganisms	Growth	Colony color
<i>Escherichia coli</i> ATCC 25922	Good	Pink
<i>Escherichia coli</i> 0157:h7	Good	Colorless

