

## MAC CONKEY S-CT AGAR E.COLI O157

Selective and differential medium for the detection of *Escherichia coli* serotype O157:H7.

TYPICAL FORMULA	(g/l)
Peptone	17.0
Proteose Peptone	3.0
D-Sorbitol	10.0
Bile Salts no.3	1.5
Sodium Chloride	5.0
Neutral Red	0.03
Crystal Violet	1.0 mg
Agar	15.0
Potassium Tellurite	2.5 mg
Cefixime	0.05 mg
Final pH 7.1 ± 0.2	

### DESCRIPTION

MAC CONKEY S-CT AGAR E.COLI O157 is a selective and differential medium for the detection of *Escherichia coli* serotype O157:H7.

### PRINCIPLE

Peptone and proteose peptone are sources of nitrogen. D-sorbitol is a fermentable carbohydrate. Many haemorrhagic strains of *E. coli*, such as *E. coli* O157:H7, do not ferment D-sorbitol and cultivate with colorless colonies on this medium. Bile salts and crystal violet inhibit the growth of Gram-positive bacteria. Neutral red is a pH indicator. Agar is the solidifying agent. Tellurite inhibits non-O157 *E. coli* strains and cefixime inhibits *Proteus* spp.

### TECHNIQUE

Inoculate the plates streaking the sample on the surface of the medium. Incubate at 36±1°C in aerobiosis for 18-24 hours and observe the colonies. A longer incubation time can change microorganisms cultural characteristics.

### INTERPRETATION OF RESULTS

Organisms fermenting D-sorbitol appear with pink colonies; those ones which do not ferment D-sorbitol, such as *E. coli* O157:H7, form colorless colonies.

### STORAGE AND TRANSPORT CONDITIONS

10-25°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

### 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 professional use only and must be used by properly trained operators.

### DISPOSAL OF WASTE

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

### REFERENCES

- March, S.B., and S. Ratnam (1986). Sorbitol-MacConkey medium for detection of *Escherichia coli* O157:H7 associated with hemorrhagic colitis. *J. Clin. Microbiol.* 23:869-872.
- Zadik, P.M., P.A. Chapman, and C.A. Siddons (1993). Use of tellurite for the selection of verocytotoxigenic *Escherichia coli* O157. *J. Med. Microbiol.* 39:155-158.
- Miller, J.M., and H.T. Holmes (1995). Specimen collection, transport, and storage, p. 19-32. In P.R. Murray, E.J. Baron, M.A. Pfaller, F.C. Tenover, and R.H. Tenover (ed.), *Manual of clinical microbiology*, 6th ed. American Society for Microbiology, Washington, D.C.
- Gray, L.D. (1995). *Escherichia*, *Salmonella*, *Shigella*, and *Yersinia*, p. 450-456. In P.R. Murray, E.J. Baron, M.A. Pfaller, F.C. Tenover, and R.H. Tenover (ed.), *Manual of clinical microbiology*, 6th ed. American Society for Microbiology, Washington, D.C.



**LIOFILCHEM® S.r.l.**

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## PRODUCT SPECIFICATIONS

### NAME

MAC CONKEY S-CT AGAR E.COLI O157

### PRESENTATION

Ready to use plates (90 mm) containing 22+/-1 ml of medium

### STORAGE

10-25°C

### PACKAGING

Ref.	Content	Packaging
11514	20 plates	<ul style="list-style-type: none"> <li>• 10 plates in thermally soldered film</li> <li>• 2 x 10 plates in cardboard box</li> </ul>

### pH OF THE MEDIUM

7.1 ± 0.2

### USE

MAC CONKEY S-CT AGAR E.COLI O157 is a selective and differential medium for the detection of *Escherichia coli* serotype O157:H7

### TECHNIQUE

Refer to technical sheet of the product

### APPEARANCE OF THE MEDIUM

Purple-red medium, slightly opalescent

### SHELF LIFE

6 months

### QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control  
7 days at 22 ± 1°C, in aerobiosis  
7 days at 36 ± 1°C, in aerobiosis
- Microbiological control  
Inoculum for productivity: 10-100 CFU/ml  
Inoculum for selectivity: 10<sup>4</sup>-10<sup>5</sup> CFU/ml  
Inoculum for specificity: ≤10<sup>4</sup> CFU/ml  
Incubation Conditions: 18-24 hours at 36±1°C, in aerobiosis

Microorganism		Growth	Color of colonies
<i>Escherichia coli</i>	ATCC 25922	Good	Pink/Red
<i>Enterococcus faecalis</i>	ATCC 19433	Inhibited	---
<i>Escherichia coli</i> O157:H7	ATCC 35150	Good	Colorless
<i>Proteus mirabilis</i>	ATCC 12453	Inhibited	---

### TABLE OF SYMBOLS

 LOT	Batch code	 Do not reuse	 Manufacturer	 Use by	 Fragile, handle with care
 REF	Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult instructions for use	



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