

## TM 201 – SORBITOL AGAR ( MACCKONKEY SORBITOL AGAR)(DOUBLE PACK)

### INTENDED USE

For isolation and identification of enteropathogenic *E.coli* strains associated with infant diarrhea.

### PRODUCT SUMMARY AND EXPLANATION

MacConkey Sorbitol Agar is based on the formulation described by Rappaport and Henigh. This medium is recommended for isolation of enteropathogenic *Escherichia coli* O157: H7, which ferments lactose but does not ferment sorbitol, hence produces colourless colonies. This organism has been recognized as a cause of hemorrhagic colitis. *E.coli* O157: H7 is a human pathogen associated with hemorrhagic colitis that results from the action of a shiga-like toxin (SLT). On standard MacConkey Agar containing lactose, this strain is indistinguishable from other lactose-fermenting *E.coli*. In MacConkey Sorbitol Agar Base, lactose is replaced by sorbitol. Unlike most *E.coli* strains, *E.coli* O157:H7 ferments sorbitol slowly or not at all. The growth of *E.coli* O157:H7 on MacConkey Agar with Sorbitol shows colorless colonies and most of the fecal flora ferment sorbitol and appear pink. MacConkey Agar with Sorbitol therefore permits ready recognition of *E.coli* O157:H7.

### COMPOSITION

Ingredients	Gms / Ltr
<b>Part I</b>	
Peptone	17.000
Protease peptone	3.000
Agar	13.500
Crystal violet	0.001
Neutral red	0.030
Sodium chloride	5.000
Bile salt mixtures	1.500
<b>Part II</b>	
D-sorbitol	10.000

### PRINCIPLE

Peptone and proteose peptone supply necessary nutrients like nitrogenous and carbonaceous compounds, long chain amino acids, minerals, vitamins and trace ingredients for the growth of organisms. Crystal violet and bile salt mixture present in the medium inhibit growth of gram-positive bacteria. Sodium chloride maintains osmotic equilibrium. Neutral red is an indicator. D-Sorbitol is the fermentable carbohydrate.

### INSTRUCTION FOR USE

- Dissolve 40.0 grams of Part-I and 10 grams of Part-II in 1000 ml distilled water.
- Gently heat to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Avoid overheating, Cool at room temperature prior to dispense.

### QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Light yellow to pink homogeneous free flowing powder.  
**Appearance of prepared medium** : Purplish red coloured clear to slightly opalescent gel forms in Petri plates.  
**pH (at 25°C)** : 7.1 ± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
<i>Salmonella Typhi</i>	6539	50-100	Luxuriant	≥70%	Pink	35-37°C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	≥70%	Pink	35-37°C	18-24 Hours
<i>Shigella flexneri</i>	12022	50-100	Luxuriant	≥70%	Pink	35-37°C	18-24 Hours
<i>Escherichia coli</i> serotype	O11 and O55	50-100	Luxuriant	≥70%	Colourless	35-37°C	18-24 Hours
<i>Escherichia coli</i> O157:H7	NCTC 29900	50-100	Luxuriant	≥70%	Colourless	35-37°C	18-24 Hours

### PACKAGING:

In pack size of 100 gm and 500 gm bottles.

### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.













### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.



## REFERENCES

1. Rappaport F. and Henigh E., 1952, J. Clin. Pathol., 6: 361.
2. Karmali M. A., Petric M., Lim C. et al, 1985, J. Infect. Dis., 151:775.
3. March S. B. and Ratnam S., 1986, J. Clin. Microbiol., 23:869.
4. Centre for Diseases Control, 1991, Morbid. Mortal, Weekly Rep 40:265.
5. Murray P. R., Baron J. H., Pfaller M. A., Tenover F. C. and Tenover R. H. (Ed.), 1999, Manual of Clinical Microbiology, 7th Ed. American Society for Microbiology, Washington, D. C

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Borkstrasse 10, 49163 Moenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
**Revision: 14 May., 2025**