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## Sorbitol MacConkey Agar (SMAC)

DM491

### Intended use

A selective and differential medium for the presumptive identification of *Escherichia coli* O157:H7.

### Contents

See pack label.

### Formulation\*

Material:	Concentration in medium:
Peptone mixture	19.0g/litre
Sorbitol	10.0g/litre
Sodium chloride	5.0g/litre
Sodium desoxycholate	1.0g/litre
Neutral red	0.03g/litre
Crystal violet	0.001g/litre
Agar	15.0g/litre
Final pH: 7.2 ± 0.2	

### Storage and shelf life

All dehydrated culture media containers should be kept tightly closed and stored in a dry place at 10 to 25°C until the expiry date shown on the pack label.

### Precautions

For *in vitro* diagnostic use only. Observe approved hazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to Product Safety Data sheet (available on request or via MAST® website).

### Materials required but not provided

Standard microbiological supplies and equipment such as loops, MAST® selective supplements, swabs, applicator sticks, incinerators and incubators, etc., as well as serological and biochemical reagents and additives such as blood.

### Procedure

1. Refer to pack label for quantities and volumes required. Prepare MAST® Sorbitol MacConkey Agar (DM491D) by suspending the powder in distilled or deionised water. For sachet packs, dissolve the entire contents of the sachet in the volume shown on the label.
2. Autoclave at 121°C (15 p.s.i.) for 15 minutes.
3. Allow to cool to 50°C.
4. If required the medium can be made selective by the addition of Cefixime Tellurite (CT) MAST® SELECTAVIAL (SV48).
5. Pour culture plates (15 to 20ml per plate) and allow to set.

6. Prepared culture plates may be used immediately or stored in plastic bags at 2 to 8°C for up to one week before use.
7. Emulsify 1g of faeces sample in 10ml of Ringer's solution and inoculate onto plates.
8. For food samples, prepare a 10<sup>-1</sup> homogenate of the food sample and enrich according to a recommended method. After enrichment subculture onto plates.
9. Incubate plates aerobically for 18 to 24 hours at 35 to 37°C.

### Interpretation of results

After incubation record growth of organisms. Examine for small, round, smooth, non-sorbitol fermenting (NSF) colonies.

### Quality control

Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate expected performance. Do not use the product if the result with the control organism is incorrect. The list below illustrates a range of performance control strains which the end user can easily obtain.

Test Organisms	Result
<i>Escherichia coli</i> ATCC® 700728	Growth
<i>Enterococcus faecalis</i> ATCC® 29212	Marked inhibition

### References

Bibliography available on request.