

Listeria Selective Agar Base (Oxford)

DM256

Intended Use

A differential medium for the isolation of *Listeria* spp. in food and clinical specimens.

Contents

See pack label.

Formulation*

Material:	Concentration in medium:
Peptone mixture	15.2 g/litre
Yeast extract	2.0 g/litre
Enzymic casein	4.0 g/litre
Glucose	0.5 g/litre
Starch	1.0 g/litre
Sodium chloride	5.0 g/litre
Di-potassium hydrogen phosphate	0.8 g/litre
Lithium chloride	15.0 g/litre
Aesculin	1.0 g/litre
Ferric ammonium citrate	0.5 g/litre
Agar	12.0 g/litre
Final pH: 7.0 ± 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 Listeria Selective Agar Base (Oxford) (DM256D) 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. Cool to 50 to 55°C and hold at this temperature in a water bath.

4. Add Listeria MAST® SELECTATAB (Oxford) (MS33 Series) or Listeria MAST® SELECTAVIAL (Oxford) (SV33 Series) as specified.
5. Mix well, 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. For direct plating of sample material onto this medium, homogenise samples (1g or 1ml) in 10ml 0.1% MAST® Peptone Water (DM185D) and then subculture onto plates of Listeria Selective Agar (Oxford).
8. Incubate at 30°C for 48 hours and examine at 24 and 48 hours for typical colonies of *Listeria* spp.
9. This medium can also be used in conjunction with MAST® Listeria Selective Enrichment Broth (DM257D).

Interpretation of results

After incubation record growth of organisms. Most *L. monocytogenes* strains and other *Listeria* spp. form black colonies approximately 1mm in diameter that are surrounded by black halos after 24 hours. After 48 hours, these colonies typically become 2 to 3mm in diameter, remaining black with a black halo, but develop a sunken centre. The characteristic blackening is caused by the aesculin positive reaction exhibited by *Listeria* spp.

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® 25922	No growth
<i>Listeria ivanovii</i> ATCC® 19119	Black colonies
<i>Listeria monocytogenes</i> ATCC® 19114	Black colonies

References

Bibliography available on request.