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**Mast  
Group**

## Novobiocin MAST® SELECTAVIAL

### SV30 Series

#### Intended Use

For the selective isolation of *Salmonella* spp. by motility enrichment and the selective enrichment of *E. coli* O157 in food and faecal samples.

FOR IN VITRO DIAGNOSTIC USE ONLY

#### Contents

10 vials of MAST® SELECTAVIAL.

#### Formulation

| Material:  | Concentration in medium: |
|------------|--------------------------|
| Novobiocin | 20 mg/L                  |

#### Storage and shelf life

Store unopened at 2 to 8°C until expiry date shown on pack label. Once reconstituted use immediately.

#### Precautions

For *in vitro* diagnostic use only. Observe approved biohazard 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.

#### Materials required but not provided

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

#### Procedure

##### a. Motility enrichment of *Salmonella* spp.

1. Sterilise the appropriate volume of MAST® MSRV (*Salmonella*) medium (DM440), cool to 50 to 55°C and hold at this temperature.
2. Aseptically reconstitute the contents of one vial using the diluent specified on the pack label.
3. Add the antibiotic supplement to the volume of medium specified on the pack label.
4. Mix gently but thoroughly, to evenly distribute the selective agents. Pour culture plates (15 to 20 mL per plate) and allow to set.
5. Prepared culture plates may be used immediately or stored in plastic bags at 2 to 8°C for up to one week before use.
6. Inoculate 3 drops of an enriched culture in separate spots on the surface of an MSRV plate.
7. Allow the spots to air dry and incubate the plates at 42°C for 24 hours.

##### b. Selective enrichment of *E. coli* O157

###### • Food samples

1. Sterilise the appropriate volume of MAST® Modified Tryptone Soy Broth (DM622D), cool to 50 to 55°C and hold at this temperature.
2. Repeat steps a2 to a3 to obtain Modified Tryptone Soy Broth with novobiocin (mTSB + N).
3. Mix gently, but thoroughly, to evenly distribute the selective agents.
4. Prepare a 10<sup>-1</sup> homogenate of food sample and incubate at 42°C for 22 hours, with agitation.
5. Subculture onto plates of MAST® CT-SMAC medium (DM491D/SV48/SV49) after 6 and 22 hours (for immunomagnetic separation techniques - 6 hours incubation).
6. Incubate plates at 37°C for 24 hours.

###### • Faecal samples

1. Repeat steps b1-b3 for food samples.
2. Aseptically distribute the medium, in 10 mL volumes, into sterile containers.
3. Inoculate 0.5g of faeces into 10 mL of prepared broth and incubate at 37°C for 18 to 22 hours.
4. Subculture onto MAST® CT-SMAC plates and incubate at 37°C for 24 hours.

#### Interpretation of results

For the motility enrichment of *Salmonella* spp. examine plates for migration and confirm suspect *Salmonella* colonies by slide agglutination using MAST® ASSURE Antisera. For enrichment of *E. coli* from food samples examine plates for the presence of non-sorbitol fermenting colonies. Subculture 5 suspect colonies onto MAST® MacConkey Agar (DM140D) and confirm the serotype of Gram negative lactose fermenting bacilli with suitable antisera (MAST® ASSURE M12030 for *E. coli*). For enrichment of *E. coli* from faecal samples examine plates and confirm as with food samples.

#### Quality control

Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate a positive reaction and at least one organism to demonstrate a negative reaction. Do not use the product if the reactions with the control organisms are 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><br>ATCC® 10536                         | No growth                   |
| <i>Escherichia coli</i> (O157:H7)<br>Nontoxigenic ATCC® 700728 | Growth on<br>mTSB + N       |
| <i>Salmonella typhimurium</i><br>ATCC® 14028                   | Growth<br>Migration on MRSV |

#### References

Bibliography available on request.