

Legionella Growth Supplement (L-Cysteine) MAST® SELECTAVIAL

SV35 Series

Intended Use

For addition to MAST® Legionella BCYE Agar (DM258D). Essential for the culture of *Legionella* spp.

FOR IN VITRO DIAGNOSTIC USE ONLY

Contents

10 vials of MAST® SELECTAVIAL.

Formulation

Material:	Concentration in medium:
L-Cysteine	0.4 g/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

1. Sterilise the appropriate volume of MAST® Buffered Charcoal Yeast Extract (BCYE) Agar Base (DM258D), cool to 50 to 55°C and hold in a water bath at this temperature.
2. Reconstitute the contents of one vial using the diluent specified on the pack label. The best method is to aseptically add the diluent using a sterile needle and syringe. Draw the diluent into the syringe and after removing the plastic cap, inject through the rubber stopper of the vial. The lyophilised supplement will rapidly dissolve and may be withdrawn into the syringe.
3. Add the supplement to the volume of medium specified on the pack label and discard the needle into an approved container.
4. Other supplements e.g. Legionella MAST® SELECTAVIAL GVPN or PNV (SV94 or SV37), may be added at this stage.
5. Mix gently but thoroughly to evenly distribute the selective agents. Pour culture plates (a volume of 20 mL per plate is recommended) 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. Inoculate dried plates directly with specimen material. This may be from patients, e.g. sputum, bronchial secretions or biopsy material, or from environmental samples e.g. swabs from water taps and shower heads, centrifuged deposits or filter-concentrated water from suspect pipe systems and cooling towers.
8. Plates should be incubated at 37°C in a humidified atmosphere for up to 10 days and examined at intervals of 2 to 4 days before being discarded.

Interpretation of results

On BCYE Agar, colonies of *Legionella* spp. are grey or grey-blue to purple in appearance. They are circular, low convex with an entire edge and exhibit a characteristic ground-glass appearance. Under ultra violet light the colour of fluorescence of the colony can assist differentiation of species.

Isolates that fail to grow on BCYE medium lacking L-cysteine, but grow on supplemented medium should be regarded as *Legionella* spp. The identity of such isolates should be confirmed by serological techniques e.g. immunofluorescence or latex agglutination.

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>Legionella pneumophila</i> ATCC® 33152	Growth

As a negative control the organism will fail to grow on BCYE medium without the addition of Legionella Growth Supplement (L-cysteine) Selectavial.

References

Bibliography available on request.