

Cefalexin (*B. pertussis*) MAST® SELECTATAB

MS10 Series

Intended Use

For the selective culture and transport of *Bordetella pertussis*.

FOR IN VITRO DIAGNOSTIC USE ONLY

Contents

25 (small) or 10 (large) MAST® SELECTATAB. See pack label.

Formulation

Material:	Concentration in medium:
Cefalexin	40 mg/L

Storage and shelf life

Store unopened at 2 to 8°C until the expiry date shown on the pack label. Once opened, store MAST® SELECTATAB in capped, original packaging at 2 to 8°C until the expiry date shown on the pack label.

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. Label Petri dishes using self-adhesive labels provided.
2. Sterilise appropriate volume of MAST® Charcoal Agar (DM109D), cool to 50 to 55°C and hold at this temperature.
3. Using sterile forceps add one MAST® SELECTATAB to the volume of medium specified on the pack label and label the bottle. Allow to stand for several minutes at 50 to 55°C until the MAST® SELECTATAB has broken up.
4. After the MAST® SELECTATAB has broken up, swirl the bottle 3 to 4 times and invert it to complete dispersal. An alternative method is to first dissolve the MAST® SELECTATAB in 3 to 5 mL of recommended diluent and add this to the appropriate volume of medium.
5. Supplement the medium with 10% v/v sterile defibrinated horse blood, mix well, pour culture plates (6 to 7 mm thickness to avoid desiccation on prolonged incubation) 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. Suitable specimens to investigate for the presence of *Bordetella pertussis* are nasopharyngeal aspirate, pernasal and nasopharyngeal swabs. The only swab fibre recommended for diagnosis of whooping cough is Dacron™ for which *B. pertussis* has a stronger affinity than for plain or treated cotton wool.
8. Specimens should be cultured by direct inoculation onto prepared plates. In cases where delay is likely, place the swab into transport medium (supplemented half strength Charcoal Agar) as *B. pertussis* will die rapidly on a dry swab. The transport medium should reach the laboratory within a few hours, but can be stored at 4°C overnight, though this may decrease the isolation rate. On receipt in the laboratory subculture onto supplemented Charcoal Agar plates as above.
9. Plates should be incubated for up to 7 days at 35 to 37°C in a humid atmosphere.

Interpretation of results

B. pertussis grows readily on this medium in the "smooth phase" and appears as small, greyish white "pearly" colonies, usually after a minimum of three days incubation. These can be identified by microscopy (tiny Gram-negative rods) and agglutination with a suitable antiserum. For further testing at a reference laboratory, the isolate can be sent as pure growth on a slope of charcoal agar (it is advisable to omit Cefalexin from medium used for this purpose).

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>Staphylococcus aureus</i> ATCC® 25923	No growth
<i>Klebsiella pneumoniae</i> ATCC® 13883	No growth
<i>Bordetella pertussis</i> ATCC® 9797	Growth
<i>Bordetella parapertussis</i> ATCC® 15311	Growth

References

Bibliography available on request.