

MAST® ASSURE ANTISERUM YERSINIA ENTEROCOLITICA

Intended Use

Liquid stable antisera for the determination of O serogroups of *Yersinia enterocolitica*.

FOR IN VITRO DIAGNOSTIC USE ONLY

Contents

See pack label.

Formulation

MAST® ASSURE ANTISERUM are prepared from rabbits hyperimmunised with standard strains of killed organisms possessing known serotypes or group specific antigens and contain 0.085% sodium azide as preservative.

Stability and storage

Store unopened at 2 to 8°C until the expiry date shown on the pack label. Once opened, MAST® ASSURE ANTISERUM should be stored at 2 to 8°C and may be used until the expiry date given on the label. **Do not freeze reagents.**

Warnings and 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. Sodium azide preservative may be toxic if ingested and may react with lead and copper plumbing to form highly explosive salts. Always dispose of by flushing to drain with plenty of water. Refer to Product Safety Data sheet.

Materials required but not provided

Standard microbiological supplies and equipment such as loops, applicator sticks, clean glass microscope slides or glass test tubes swabs, MAST® culture media, incinerators and incubators, etc., as well as reagents and additives such as sterile 0.85% saline solution.

Procedure

Slide agglutination of live organisms

1. Dispense two 5 to 10 µl volumes of sterile 0.85% saline solution (saline) onto a carefully cleaned microscope slide. The slide may be partitioned using a chinagraph pencil. With a platinum wire or disposable inoculation loop take one 1 to 2mm colony of live organisms from a fresh culture on MAST® Nutrient Agar DM179 or similar and emulsify into each drop of saline to produce a distinct and uniform turbidity.
2. Place a drop (30 to 40 µl) of antiserum onto one of the emulsified isolates and on the other a drop (30-40 µl) of saline as a control.

Note: Do not allow the organism to contaminate the antiserum dropper bottle.

3. Mix the reagents by tilting the slide back and forth for 60 seconds while viewing it under indirect light against a dark background.
4. Distinct clumping or agglutination within this period, without clumping in the saline control (auto-agglutination), should be regarded as a positive result.

Interpretation of results

Isolates producing a distinct positive reaction with an antiserum are assumed to be a *Yersinia enterocolitica* exhibiting the O group specified by antiserum producing the reaction.

If a positive reaction is observed with the O3 group serum, repeat the slide test using the polyvalent group O1 and O2 antiserum. If a positive reaction is observed with both antisera then the organism does not belong to serogroup O3. *Yersinia enterocolitica* group O3 organisms do not agglutinate the polyvalent group O1 and O2 antiserum.

Note: Although serogroups O3, O5, O8 and O9 of *Y. enterocolitica* are said to be pathogenic in humans, judgement on the pathogenicity of an isolate should be based on O serogrouping and biotyping. In general O serogroups 3 and 8 belong to biotype 4 and O serogroups 5 and 9 belong to biotype 2.

Limitations of use

Only cultures of organisms identified *Yersinia enterocolitica* by morphological and biochemical features should be serotyped with this product.

Polyvalent and monovalent antisera are intended for use in rapid slide agglutination tests.

Quality control

It is recommended that quality control should 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. Check for signs of deterioration. Do not use reagents if they are contaminated or cloudy.

References

Bibliography available on request.