

Diagnostic Susceptibility Test Agar (D.S.T.)

DM215

Intended Use

For susceptibility testing.

Contents

See pack label.

Formulation*

Material:	Concentration in medium:
Peptone	16.0g/litre
Sodium chloride	5.0g/litre
Uridine	0.5g/litre
Agar	16.0g/litre
Final pH: 7.3 ± 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 MAST® D.S.T. Agar (DM215D) 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. If required cool to 50 to 55°C and add 5 to 7% sterile defibrinated blood to enhance the growth of fastidious organisms or antibiotics (MAST ADATAB®) for dilution susceptibility test methods.
4. Mix thoroughly and pour culture plates (15 to 20ml 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. MAST® D.S.T. Agar (DM215D) is suitable for susceptibility testing of all organisms to the major groups of antibiotics by the disc diffusion and agar dilution methods. A further application is the microbiological assay of aminoglycosides in serum for the routine monitoring of therapy with this potentially toxic group of antibiotics.

Interpretation of results

After incubation record diameter of zones of inhibition or MIC. Interpret results as sensitive, intermediate or resistant according to the criteria laid down in the method of use.

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	Growth and correct susceptibility pattern
<i>Pseudomonas aeruginosa</i> ATCC® 27853	Growth and correct susceptibility pattern
<i>Staphylococcus aureus</i> ATCC® 25923	Growth and correct susceptibility pattern

Limitations of use

It should be noted that certain "thymineless" mutants will not grow on a medium containing uridine or lysed blood. If such organisms are encountered, Mueller Hinton Agar (DM170D) without the addition of lysed blood may be used.

References

Bibliography available on request.