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Calcium Supplemented Isotonic Sensitivity Test Agar

DM624

Intended use

A semi-defined medium for Antimicrobial Susceptibility Testing (AST) of daptomycin, supplemented with 50mg/litre of calcium.

Contents

See pack label.

Formulation*

Material:	Concentration in medium:
Peptone Mixture	16.0 g/litre
Glucose	2.0 g/litre
Sodium Chloride	2.8 g/litre
Di-Sodium Hydrogen Phosphate	0.4 g/litre
Sodium Glycerophosphate	0.22 g/litre
Sodium Gluconate	0.1 g/litre
Sodium Acetate	1.0 g/litre
Uridine	0.3 g/litre
Starch	1.0 g/litre
Defined Chemical Mixture	0.078 g/litre
Calcium chloride**	0.05 g/litre
Agar	12.0 g/litre
Final pH: 7.3 ± 0.2	

** = variable to achieve 50mg/litre

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® Calcium Supplemented Isotonic Sensitivity Test Agar (DM624D) 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.

- Autoclave at 121°C (15 p.s.i.) for 15 minutes.
- If required cool to 50 to 55°C and add 5 to 7% sterile lysed horse blood to enhance the growth of fastidious organisms or antibiotics (MAST ADATAB®) for dilution susceptibility test methods.
- Mix thoroughly and pour 90mm culture plates to a thickness of 4.0mm ± 0.5mm (25ml per plate) and allow to set.
- Prepared culture plates may be used immediately or stored in plastic bags at 2 to 8°C for up to one week before use.
- Antimicrobial Susceptibility Testing should be performed in accordance with standards set down by regulatory bodies such as CLSI® (Clinical and Laboratory Standards Institute).

Interpretation of results

After incubation record diameter of zones of inhibition or Minimum Inhibitory Concentration (MIC). Interpret results as sensitive, intermediate or resistant according to the criteria laid down in the method of use. The following formal QC ranges for daptomycin testing with reference strains have been determined by multi-laboratory studies and approved by CLSI®:

ORGANISM:	MIC (mg/L)	Zone Dia.(mm)
<i>Staphylococcus aureus</i> ATCC® 29213	0.25 – 1.0	-
<i>Enterococcus faecalis</i> ATCC® 29212	1.0 – 8.0	-
<i>Strep. pneumoniae</i> ATCC® 49619	0.06 – 0.5	19 - 26
<i>Staphylococcus aureus</i> ATCC® 25923	-	18 - 23

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

References

Bibliography available on request.