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Agar A

RM10

Intended use

A high quality bacteriological agar.

Contents

See pack label.

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.

Description

Agars are mixtures of complex polysaccharides, which will form sols when heated to about 100°C in the presence of an excess of water. These sols set at a fairly low temperature, 30 to 50°C. Agar-bound media, therefore, have the properties of solids and liquids. Solid, they can be streaked to produce surface growth, while their liquid properties allow chemicals to diffuse readily throughout the medium.

An ideal agar will have properties which do not interfere with growth, will have sufficient mechanical strength for handling, will have suitable melting and setting points, and will not interfere with diffusion. While the first three points have been met by many agars, Hanus, Sands and Bennett have shown that the type of agar used influences the diffusibility of such antibiotics as polymyxin B, neomycin, kanamycin and to a lesser extent, streptomycin.

Garrod and Waterworth showed that the magnesium content of agars influenced the gentamicin sensitivity test pattern. MAST® has therefore, concentrated on producing a bacteriological grade of agar, the diffusibility characteristics of which have been improved.

MAST® Agar A is purified and clarified by a special ion-exchange process. This treatment gives the agar a high gel strength, good clarity, no inhibition of bacterial growth, and good diffusibility of antibiotics. Agar A, may be used to make solid culture media at concentrations of 1.0% and more and it maintains its gel strength over a pH range of 5 to 8.

Procedure

MAST® Agar A should be added at the appropriate concentration to culture media with additional ingredients e.g. meat extracts and peptones as specified in the formulation being prepared.

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*
<i>Staphylococcus aureus</i> ATCC® 25923	Growth*

*Agar A is added at 1.2% w/v to a general purpose broth, plates are poured after sterilisation at 121°C for 15 minutes.

References

Bibliography available on request.