

MAST® /D H₂S Agar

IDM25

Intended use

An agar medium for the demonstration of hydrogen sulphide (H₂S) production.

Contents

See pack label.

Formulation*

Material:	Concentration in medium:
Peptone mixture	18.0 g/litre
Meat extract	4.0g/litre
Yeast extract	3.0g/litre
Lactose	10.0g/litre
Sucrose	10.0g/litre
Glucose	1.0g/litre
Sodium thiosulphate	1.0g/litre
Ferric ammonium citrate	1.0g/litre
Phenol red	0.025g/litre
Agar	20.0 g/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 H₂S Agar (IDM25/A) 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. Sterilise by autoclaving at 121°C (15 p.s.i.) for 15 minutes. Do not overheat any carbohydrate-containing medium.

3. Mix well and pour culture plates (15 to 20ml per plate) into Petri dishes which have been labelled using the self-adhesive labels provided. Self adhesive labels are provided in each box of preweighed sachets.
4. Prepared culture plates may be used immediately or stored in plastic bags at 2 to 8°C for up to one week.
5. Prepare a suspension of each organism equivalent in density to a 0.5 McFarland standard. Inoculate the surface of a well-dried plate using a replicating device, e.g. the SCANURIDOT Multipoint Inoculator, to deliver each inoculum onto the agar surface.
6. Allow the inoculum drops to dry before disturbing and incubate plates aerobically for 18 to 24 hours at 35 to 37°C (or alternative temperatures according to the methodology followed).

Interpretation of results

After incubation record growth and colour development in the medium. A positive result, indicating hydrogen sulphide production, is shown by a blackening of the inoculum spot. A negative result is indicated by no blackening of the inoculum spot.

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	
<i>Escherichia coli</i> ATCC® 25922	Negative
<i>Klebsiella pneumoniae</i> ATCC® 13883	Negative
<i>Proteus mirabilis</i> ATCC® 29906	Positive
<i>Salmonella typhimurium</i> ATCC® 14028	Positive

References

Bibliography available on request.