

Technical Data

LM Agar, Modified (Liver Meat Agar, Modified)

M1934

Intended Use:

Recommended for cultivation of fastidious anaerobic microorganisms.

Composition**	/ τ
Ingredients	g / L
HML infusion base #	20.000
Dextrose (Glucose)	0.750
Starch	0.750
Agar	11.000
Final pH (at 25°C)	7.6 ± 0.2
**Formula adjusted, standardized to suit performance parameters	

#- Equivalent to Meat liver infusion Base

Directions

Suspend 32.5 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Anaerobic bacteria live in an oxygen-free environment. Some anaerobic bacteria actually die if oxygen is present, while others fail to grow and multiply (1). HML infusion base provides adequate degree of anaerobiosis and is also rich source of growth nutrients, which enables even the strict and fastidious anaerobes to grow well. *Clostridium* is a large genus of grampositive spore-bearing anaerobes. They are normally present in soil, some are responsible for human and animal diseases and others are associated with food spoilage. The present formulation is a modification, which supports the growth of many spore forming and non-spore forming strict anaerobes.

The growth is promoted by HML infusion base, which contains growth nutrients such as nitogen, vitamins, minerals and amino acids. Dextrose is the source of fermentable carbohydrate.

Type of specimen

Clinical samples; Food samples; Soil sample

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (2,3).

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (4).

For soil samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (5).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic Use only. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Further biochemical and serological test must be carried out for complete identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Light yellow to light brown homogeneous free flowing powder

Gelling

Firm, comparable with 1.1% Agar gel

Colour and Clarity of prepared medium

Brown coloured opalascent gel with suspended particles forms in Petri plates.

Reaction

Reaction of 3.25% w/v aqueous solution at 25°C. pH : 7.6±0.2

pН

7.40-7.80

Cultural Response

Cultural characteristics observed under anaerobic condition, after an incubation at 35-37°C for 18-48 hours.

Organism	Growth	Inoculum (CFU)	Recovery
<i>Clostridium perfringens</i> ATCC 12924	luxuriant	50-100	>=50%
Proteus mirabilis ATCC 25933	luxuriant	50-100	>=50%
<i>Clostridium tetani</i> ATCC 10779	luxuriant	50-100	>=50%
<i>Clostridium botulinum</i> ATCC 25763	luxuriant	50-100	>=50%
<i>Escherichia coli</i> ATCC 25922 (00013*)	luxuriant	50-100	>=50%
Bacteroides vulgatus ATCC 8482	good-luxuriant	50-100	>=50%

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

- 1. Alcamo E. I., 2001, Fundamentals of Microbiology, 6th Ed., Jones and Bartlett Publishers
- 2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
- 4. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
- 5. Subba Rao N. S., 1977, Soil Microorganisms and Plant Growth, Oxford and IBH Publishing Co., New Delhi.





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In vitro diagnostic

medical device

IVD



-30°C Storage temperature

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