



Technical Data

Herellea Agar

M505

Intended Use:

Recommended for the selective isolation and differentiation of Gram-negative, fermentative and nonfermentative organisms especially for differentiation of organisms of Mima and Herellea group.

Composition**

Ingredients	Gms / Litre
Tryptone	15.000
Soya peptone	5.000
Sodium chloride	5.000
Lactose	10.000
Maltose	10.000
Bile salts mixture	1.250
Bromocresol purple	0.020
Agar	16.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 62.27 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Identification of *Mima polymorph* and *Herellea vaginicola* now named as genus *Acinetobacter*, was difficult in gonorrhoea cases due to presence of large numbers of gram-positive cocci and gram-negative rods. Herellea Agar was formulated by Mandel, Wright and McKinnon (4), which differentiated gram-negative, fermentative and non-fermentative organisms. This medium is particularly suitable for the isolation of *Acinetobacter calcoaceticus*, *A. anitratum* (formerly *H. vaginicola*) and *A. lwoffii* (formerly *M. polymorpha*) (5).

Tryptone and Soya peptone are sources of carbon, nitrogen, vitamins and minerals. Sodium chloride provides the essential ions and also maintains the osmotic equilibrium of the medium. Bile salts mixture in the medium acts as selective agent, inhibiting the growth of *Neisseria* species and other gram-positive organisms. Lactose and maltose are the fermentable carbohydrates. Bromocresol purple acts as the pH indicator. Fermentative gram-negative bacteria ferment the carbohydrates to produce acid, which cause a corresponding change in the colour of pH indicator dye to yellow. Non-fermenters can therefore be easily distinguished from the fermenters by the pale lavender colour of the former (5).

Type of specimen

Food and dairy samples

Specimen Collection and Handling:

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,6,7). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

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 specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Further biochemical and serological tests must be carried out for further 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

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.6% Agar gel

Colour and Clarity of prepared medium

Purple coloured, clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of 6.23% w/v aqueous solution at 25°C. pH : 6.8±0.2

pH

6.60-7.00

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Acinetobacter calcoaceticus</i> ATCC 17961	50-100	good-luxuriant	≥50%	pale lavender
<i>Acinetobacter lwoffii</i> ATCC 9957	50-100	good-luxuriant	≥50%	pale lavender
<i>Escherichia coli</i> ATCC 25922 (00013*)	50-100	good-luxuriant	≥50%	yellow
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	≥10 ⁴	inhibited	0%	
<i>Listeria monocytogenes</i> ATCC 19112	≥10 ⁴	inhibited	0%	

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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
3. 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. Mandel A. D., Wright K. and McKinnon J. M., 1964, J. Bacteriol., 88:1524.
5. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
6. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
7. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.

Revision : 02 / 2021

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.