Herellea Agar

M505

Herellea Agar is recommended for the selective isolation and differentiation of gram-negative, fermentative and non-fermentative organisms especially for differentiation of organisms of *Mima* and *Herellea* group.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	15.000
Papaic digest of soyabean meal	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 distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Identification of *Mima polymorpha* and *Herellea vaginicola* now named as genus *Acinetobacter* , was difficult in gonorrhae cases due to presence of large numbers of gram-positive cocci and gram-negative rods. Herellea Agar was formulated by Mandel, Wright and McKinnon (1), 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*) (2).

Casein enzymic hydrolysate and papaic digest of soyabean meal 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 (2).

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
M505: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
Cultural Response				
Acinetobacter calcoaceticus ATCC 17961	50-100	good-luxuriant	>=50%	pale lavender
Acinetobacter lwoffii ATCC 9957	50-100	good-luxuriant	>=50%	pale lavender
Escherichia coli ATCC 25922	50-100	good-luxuriant	>=50%	yellow
Staphylococcus aureus ATCC 25923	>=10^3	inhibited	0%	
Listeria monocytogenes ATCC 19112	>=10^3	inhibited	0%	

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

Reference

1.Mandel A. D., Wright K. and McKinnon J. M., 1964, J. Bacteriol., 88:1524. 2.MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.

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