

# **Technical Information**

## Herellea Agar

### Product Code: DM 1505

Application: Herellea Agar is 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		
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	e narameters		

## **Principle & Interpretation**

Due to presence of large numbers of gram-positive cocci and gram-negative rods identification of Mima polymorpha and Herellea vaginicola now named as genus Acinetobacter, was difficult in gonorrhae cases Herellea Agar was formulated by Mandel, Wright and McKinnon (1), which differentiated gram-negative, fermentative and non-fermentative organisms. This medium is mainly suitable for the isolation of Acinetobacter calcoaceticus, A.anitratum (formerly H.vaginicola) and A.lwofii (formerly M. polymorpha) <sup>(2).</sup>

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. Nonfermenters can therefore be easily distinguished from the fermenters by the pale lavender colour of the former <sup>(2).</sup>

# Methodology

Suspend 62.27 grams of powder media in 1000 ml distilled water. Shake well and heat 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.

# **Quality Control**

### **Physical 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 Range 6.60-7.00

### Cultural Response/Characteristics

DM1505: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Colony of colony
Acinetobacter calcoaceticus ATCC 17961	50-100	good-luxuriant	>=50%	Pale lavender
Acinetobacter lwofii ATCC9957	50-100	good-luxuriant	>=50%	Pale lavender
Escherichia coli ATCC 25922	50-100	good-luxuriant	>=50%	yellow
Staphylococcus aureus ATCC 25923	>=10 <sup>3</sup>	inhibited	0%	
Listeria monocytogenes ATCC 19112	>=10 <sup>3</sup>	inhibited	0%	

## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label. **Prepared Media:** 2-8<sup>0</sup> in sealable plastic bags for 2-5 days.

## **Further Reading**

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.

### Disclaimer:

- User must ensure suitability of the product(s) in their application prior to use.
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