

# TM 1356 - HERELLEA AGAR

### **INTENDED USE**

For the selective isolation and differentiation of gram-negative, fermentative and non-fermentative organisms especially for differentiation of organisms of Mima and Herellea group.

### PRODUCT SUMMARY AND EXPLANATION

Identification of *Mima polymorph* 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, 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*).

# **COMPOSITION**

Ingredients	Gms / Ltr
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

### **PRINCIPLE**

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. Nonfermenters can therefore be easily distinguished from the fermenters by the pale lavender colour of the former.

### **INSTRUCTION FOR USE**

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

# **QUALITY CONTROL SPECIFICATIONS**

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.

**Appearance of prepared medium**: Purple coloured, clear to slightly opalescent gel forms in Petri plates.

**pH (at 25°C)** : 6.8±0.2

### **INTERPRETATION**

Cultural characteristics observed after an incubation.













Microorganism	АТСС	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubatio n Period
Acinetobacter calcoaceticus	17961	50-100	Good- luxuriant	>=50%	Pale lavender	35 - 37°C	18-24 Hours
Acinetobacter Iwoffii	9957	50-100	Good- luxuriant	>=50%	Pale lavender	35 - 37°C	18-24 Hours
Escherichia coli	25922	50-100	Good- luxuriant	>=50%	Yellow	35 - 37°C	18-24 Hours
Staphylococcus aureus subsp. aureus	25923	>=10 <sup>3</sup>	Inhibited	0%	-	35 - 37°C	18-24 Hours
Listeria monocytogenes	19112	>=10 <sup>3</sup>	Inhibited	0%	-	35 - 37°C	18-24 Hours

# **PACKAGING:**

In pack size of 500 gm bottles.

### **STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

# **DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

# **REFERENCES**

- 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.

A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.

- 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, 17<sup>th</sup> Ed., APHA Inc., Washington, D.C.





































**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. \*For Lab Use Only Revision: 08 Nov., 2019







