

## Technical Information

### \*Microme MDR Acinetobacter Agar Plate

**Product Code: PM 2938**

**Application:** Recommended for selective isolation of *Acinetobacter* species from environmental and clinical samples.

#### Composition\*\*

| Ingredients                            | Gms / Litre          |
|----------------------------------------|----------------------|
| Peptone special                        | 9.000                |
| Sodium chloride                        | 5.000                |
| Selective mix                          | 0.500                |
| Chromogenic mixture                    | 1.350                |
| Agar                                   | 15.000               |
| Final pH ( at 25°C)                    | 7.0±0.2              |
| <b>VCC Selective Supplement(FD335)</b> | <b>1 vial</b>        |
| <b>Ingredients</b>                     | <b>Concentration</b> |
| Vancomycin                             | 10.00 mg             |
| Cefsulodin                             | 15.00 mg             |
| Cefradine                              | 50.00                |

\*\*Formula adjusted, standardized to suit performance parameters

#### Principle & Interpretation

*Acinetobacter* species are gram negative bacteria ubiquitous bacteria that have been isolated from patients with nosocomial infection, environment, soil, and water. *Acinetobacter* is mostly found in every type of infections (1). There is an alarming situation as *Acinetobacter baumannii* is found to be resistant to most commonly used antibiotics which includes beta lactams and aminoglycosides (2,3). Immunocompromised patients requiring mechanical respirations are at more risk of infection by *Acinetobacter* species.(3) Peptone special provides nitrogenous, carbonaceous compounds, amino acids, vitamins and other growth factors essential to the organism. Sodium chloride maintains the osmotic balance. Selective mix inhibits gram positive organisms. The chromogenic mixture in the medium allows the differentiation of *Acinetobacter* species from other organisms. Selective supplement helps inhibiting contaminating microflora.

#### Type of specimen

Clinical samples - Nasal swab, Environmental Samples

#### Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (4,5). After use, contaminated materials must be sterilized by autoclaving before discarding.

#### Warning and Precautions :

In Vitro diagnostic Use only. Read the label before opening the pack. 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. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

#### Performance and Evaluation



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

## Methodology

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

## Quality Control

### Appearance

Sterile HiCrome™ MDR Acinetobacter Agar in 90 mm disposable plates with smooth surface & absence of black particles/ cracks/ bubbles.

### Colour of medium

Yellow to light purple coloured medium

### Quantity of medium

25 ml of medium in 90 mm disposable plates.

### pH

6.8-7.2

### Sterility Check

Passes release criteria

### Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

| Organism                                     | Inoculum<br>(CFU) | Growth    | Recovery | Colour of<br>Colony       |
|----------------------------------------------|-------------------|-----------|----------|---------------------------|
| Acinetobacter baumannii<br>ATCC BAA-1605     | 50 -100           | luxuriant | >=50 %   | Light purple<br>with halo |
| Acinetobacter baumannii<br>ATCC BAA-747      | >=10 <sup>4</sup> | inhibited | 0%       | -                         |
| Acinetobacter baumannii<br>ATCC 19606        | >=10 <sup>4</sup> | inhibited | 0%       | -                         |
| Acinetobacter lwofii<br>ATCC 15309           | >=10 <sup>4</sup> | inhibited | 0%       | -                         |
| Acinetobacter haemolyticus<br>ATCC 19002     | >=10 <sup>4</sup> | inhibited | 0%       | -                         |
| Escherichia coli ATCC<br>25922 (00013*)      | >=10 <sup>4</sup> | inhibited | 0%       | -                         |
| Enterococcus faecalis ATCC<br>29212 (00087*) | >=10 <sup>4</sup> | inhibited | 0%       | -                         |

Key : \*Corresponding WDCM numbers.

## Storage and Shelf Life

On receipt store between 2-8°C. Use before expiry date on the label. 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 (4,5).

## Further Reading

1. Valentine, S.C., et.al. 2008 Phenotypic and molecular characterization of *Acinetobacter baumannii*. Clinical isolates from nosocomial outbreaks in Los Angeles County, California. J.Clin. Microbiology.; 46:2499-2507
2. Montefour, K., et.al.2008. *Acinetobacter baumannii* : An Emerging Multidrug Resistant pathogen in critical care Nurse; 28:15-25





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3. Bergogne-Berezin, E., m. L. Joly-Guillou, and J.F. Vieu. 1987. Epidemiology of nosocomial infections due to *Acinetobacter calcoaceticus*. J. Hosp. Infect. 10:105-113.
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
5. 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.

### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and developmentwork carried at **CDH** is true and accurate
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