



Ready Prepared Media

## Technical Information

### MiCrome Listeria Agar Plate

**Product Code: PM 2417F**

**Application:** Recommended for rapid and direct identification of *Listeria* species in accordance with FDA BAM, 1998.

### Composition\*\*

Ingredients	Gms / Litre
Peptone, special	30.000
HM Extract #	5.000
Yeast Extract	1.000
Lithium Chloride	9.000
D-Xylose	10.000
Phenol Red	0.120
Chromogenic Mixture	5.130
Agar	13.000
MiCrome Listeria Selective Supplement (MS2181)	2 vials
Ceftazidime (2x2mg)	4.000 mg
Amphotericin B (2x2.5mg)	5.000 mg
Final pH ( at 25°C)	7.3±0.1

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

Key : # - Equivalent to Meat extract

### Principle & Interpretation

MiCrome Listeria Agar Plate, Modified is a modification of the formulas by Notermans et al. (1) and Mengaud et al. (2) for the detection of *Listeria* species from food stuffs. This is also in accordance with the FDA BAM, 1998 (3). This media helps in the presumptive identification of *Listeria monocytogenes* within 24-48 hours after pre- enrichment. The principle of detection is based on the specific chromogenic detection of beta-glucosidase activity and also D-Xylose fermentation. *Listeria* species hydrolyse the purified chromogenic substrate in the medium giving blue coloured colonies. Since  $\beta$ -glucosidase activity is specific for *Listeria* species; other organisms cannot utilize the chromogenic substrate and therefore give white colonies. Differentiation between *Listeria* species is based on the property of D-Xylose fermentation. The colonies of *L.monocytogenes* and *L.innocua* appear blue with a yellow halo (D-Xylose positive) while the colonies of *L.ivanovii* appear blue without a yellow halo (D-Xylose negative). Peptone, yeast extract and HM extract provide nitrogenous substances, vitamin B complex and other essential growth nutrients. D-Xylose is the fermentable carbohydrate with phenol red as an indicator. Sodium chloride maintains the osmotic equilibrium. The added lithium chloride and MiCrome Listeria Selective Supplement (MS2181) inhibit growth of most gram-positive bacteria, gram-negative bacteria, yeasts and moulds.

### Type of specimen

Food samples

### Specimen Collection and Handling

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (5). After use, contaminated materials must be sterilized by autoclaving before discarding. materials must be sterilized by autoclaving before discarding.



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## Warning and Precautions

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 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.
3. Slight colour variation may be observed depending upon strains.
4. Further biochemical tests must be carried out for confirmation.

## 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.

## Methodology

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

## Quality Control

### Appearance

Sterile MiCrome Listeria Agar in 90 mm disposable plates.

### Colour

Red coloured medium

### Quantity

25 ml of medium in 90 mm plate

### pH

7.10-7.50

### Sterility Check

Passes release criteria

### Cultural Response

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





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## 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 development work carried at **CDH** is true and accurate
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
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- Do not use the products if it fails to meet specifications for identity and performs parameters.