

## Technical Information

### LPM MiVeg Agar Base

#### Product Code : VM2228

**Application:-** LPM (Lithium Phenylethanol Moxalactam) MiVeg Agar Base is recommended for isolation and cultivation of *Listeria monocytogenes* from food and dairy products.

#### Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	5.0
MiVeg peptone	5.0
MiVeg extract	3.0
Glycine anhydride	10.0
Lithium chloride	5.0
Sodium chloride	5.0
Phenyl ethyl alcohol	2.5
Agar	15.0
Final pH (at 25°C)	7.3 ± 0.2

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

#### Principle & Interpretation

LPM MiVeg Agar Base is prepared by adding MiVeg peptone, MiVeg hydrolysate and MiVeg extract in place of animal peptones thereby making the medium BSE/TSE risks free. This medium is the modification of LPM Agar Base which is modified McBride Agar developed by Lee and McClain (1) for the isolation of *Listeria monocytogenes*.

MiVeg hydrolysate, MiVeg peptone and MiVeg extract supplies necessary nutrients needed for metabolism of the organisms. Glycine anhydride, lithium chloride and phenyl ethyl alcohol suppress gram-positive cocci and gram-negative rods. The added supplement Moxalactam (MS2151) inhibits both gram-positive and gram-negative bacteria including *Staphylococci*, *Proteus* and *Pseudomonas* species. *Listeria monocytogenes* show blue-green iridescence when examined with oblique transmitted light (2, 3).

#### Methodology

Suspend 50.5 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add rehydrated contents of 1 vial of Moxalactam Supplement (MS2151). Mix well before pouring into sterile petri plates.

**Caution:** Lithium chloride is harmful. Avoid contact with skin and inhalation of vapours. On contact with skin, wash with plenty of water immediately.

#### Quality Control

##### Physical Appearance

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

##### Gelling

Firm, comparable with 1.5% Agar gel.

##### Colour and Clarity of prepared medium

Light yellow coloured, clear to slightly opalescent gel forms in petri plates.

##### Reaction

Reaction of 5.05% w/v aqueous solution is pH 7.3 ± 0.2 at 25°C.

## pH Range

7.1 - 7.5

## Cultural Response/Characteristics

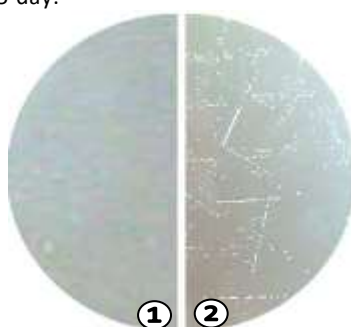
Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -10 <sup>3</sup>	Inhibited	0%
<i>Listeria monocytogenes</i> (19111)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	>50%
<i>Listeria monocytogenes</i> (19112)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	>50%
<i>Listeria monocytogenes</i> (19117)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	>50%
<i>Pseudomonas aeruginosa</i> (27853)	10 <sup>2</sup> -10 <sup>3</sup>	Inhibited	0%
<i>Staphylococcus aureus</i> (25923)	10 <sup>2</sup> -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° in sealable plastic bags for 2-5 day.



**VM2228 LPM MiVeg Agar Base**  
(Against dark background)

1. Control
2. *Listeria monocytogenes*

## Further Reading

1. Lee and McClain, 1986, Appl. Environ. Microbiol., 52:1215.
2. Bearns and Girard, 1959, Am. J. Med. Technol., 25:120.
3. Bortelss, Schtech and Albritton, 1985, Manual of Clinical Microbiology, Lennette, Balows, Hausler and Shadomy (Eds.), 4<sup>th</sup> ed., ASM, Washington, D.C.

## 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.
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