

LPM (Lithium Chloride Phenylethanol Moxalactam) Agar



Medium used for the isolation and cultivation of *Listeria monocytogenes*.

*Equally use with MFDS (MB-L1387K) and QIA (MB-L1387Q).

• CONTENTS (Liter)

Tryptose	10.0 g
Beef Extract	3.0 g
Sodium Chloride	5.0 g
Lithium Chloride	5.0 g
Glycine Anhydride	10.0 g
Agar	15.0g
Final pH = 7.3 ± 0.2 at 25°C	

• PROCEDURE

Suspend 48.0 G of powder in 1 L of distilled or deionized water. Add 2 vials of LPM A supplement (Phenylethanol) (MB-L0724). Heat to boiling until completely dissolved. Sterilize by autoclave at 121 °C for 15 minutes. Cool to 45-50°C in water bath. Aseptically add 2 vials of LPM B supplement (Moxalactam) (MB-L0725). Pour into petri dishes.

LPM A supplement (Phenylethanol)

1 vial contents (each vial is sufficient for 500 mL of medium)

Phenylethanol 1.25 g

LPM B supplement (Moxalactam)

1 vial contents (each vial is sufficient for 500 mL of medium)

Moxalactam 0.01 g

• INTERPRETATION

LPM (Lithium Chloride Phenylethanol Moxalactam) Agar is medium used for the isolation and cultivation of *Listeria monocytogenes*. Clinical specimens obtained from nonsterile sites should be selectively enriched for *Listeria* spp. before being plated. Tryptose and beef extract are sources of nitrogen, vitamins and minerals. Sodium chloride maintains osmotic balance. Glycine anhydride improves recovery of *Listeria* spp. Lithium chloride, moxalactam and phenyl ethanol aids in suppression of both gram-positive and gram-negative organisms including *Staphylococcus*, *Proteus* and *Pseudomonas* spp.

• TECHNIC

Inoculate the plates with spreading the specimen on surface of the medium using a sterile loop. Incubate at 30°C or 35 ± 1°C for 24 - 48 hours up to 48 ± 2 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: homogeneous

Color: light tan

Prepared medium

Appearance: slightly opalescent

Color: light to medium amber

Incubation conditions: 30°C or 35 ± 1°C / 24 - 48 hours up to 48 ± 2 hours

Microorganism	ATCC	Inoculum CFU	Growth
<i>Listeria monocytogenes</i>	19114	50-100	good
<i>Bacillus subtilis</i>	9466	≥10 ³	partially inhibited
<i>Enterococcus faecalis</i>	29212	≥10 ³	inhibited
<i>Escherichia coli</i>	25922	≥10 ³	inhibited
<i>Staphylococcus aureus</i>	25923	≥10 ³	inhibited

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-8°C.

• REFERENCES

1. Murray, Webb and Swann. 1926. J. Pathol. Bacteriol. 29:407.
2. Monk, Clavero, Beuchat, Doyle and Brackett. 1994. J. Food Prot. 57:969.
3. Wehr. 1987. J. Assoc. Off. Anal. Chem. 70:769.
4. Bremer and Osborne. 1995. J. Food Prot. 58:604.
5. Grau and Vanderlinde. 1992. J. Food Prot. 55:4.
6. Patel, Hwang, Beuchat, Doyle and Brackett. 1995. J. Food Prot. 58:244
7. Refer to the MFDS and QIA.

• PACKAGE

Cat. No : MB-L1387 LPM (Lithium Chloride Phenylethanol Moxalactam) Agar	500 G
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