LMX Broth (LMX)

Broth for the enrichment of *Listeria monocytogenes* from food and production environment samples. For use with the VIDAS® system.

**SUMMARY AND EXPLANATION**

LMX Broth (*Listeria monocytogenes Xpress*), combined with LMX lyophilized supplement (ref. 42648), enables the selective enrichment of *Listeria monocytogenes* from food and production environment samples (surfaces). This enrichment is followed by the detection of *Listeria monocytogenes* using the VIDAS® LMX method (ref. 30123).

**PRINCIPLE**

LMX Broth contains a rich nutritive base including a variety of peptones, and acts as a buffer to maintain the pH close to neutral, which favors the multiplication of *Listeria monocytogenes*. Selectivity is guaranteed by the lithium chloride, acriflavine and nalidixic acid, and by the antibiotics in the supplement.

**CONTENT OF THE KIT**

<table>
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<th>Ready-to-use media</th>
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<td><strong>Bottles:</strong></td>
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<tr>
<td>REF 42647</td>
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<td><strong>Bags / Minibags:</strong></td>
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<tr>
<td>REF 42649</td>
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<tr>
<td>REF 42749</td>
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<td><strong>LMX-MNB</strong></td>
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**COMPOSITION**

**Theoretical formula**

This medium can be adjusted and/or supplemented according to the performance criteria required:

- Enzymatic digest of animal tissue (bovine or porcine) ........................................ 5 g
- Enzymatic digest of casein (bovine) ....................................................................... 5 g
- Meat extract (bovine or porcine) ........................................................................... 5 g
- Yeast extract ........................................................................................................... 5 g
- Buffer system ......................................................................................................... 18.32 g
- Mixture of salts ........................................................................................................ 11 g
- Anhydrous glucose .................................................................................................. 2 g
- Acriflavine ............................................................................................................... 0.005 g
- Nalidixic acid .......................................................................................................... 0.01 g
- Purified water ........................................................................................................... 11 g

**pH** 7.3

**REAGENTS AND MATERIAL REQUIRED BUT NOT PROVIDED**

- **Reagents:**
  - VIDAS® *L. monocytogenes Xpress* (VIDAS® LMX ref. 30123)
  - LMX broth supplement (ref. 42648)
- **Material:**
  - Bacteriology incubator
  - Blender bags

**WARNINGS AND PRECAUTIONS**

- For microbiological control only.
- For professional use only.
- This kit contains products of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not totally guarantee the absence of transmissible pathogenic agents. It is therefore recommended that these products be treated as potentially infectious, and handled observing the usual safety precautions (do not ingest or inhale).
- All specimens, microbial cultures and inoculated products should be considered infectious and handled appropriately. Aseptic technique and usual precautions for handling the microbial group studied should be observed throughout this procedure. Refer to “CLSI® M29-A, Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline - Current Revision”. For further information on handling precautions, refer to "Biosafety in Microbiological and Biomedical Laboratories – CDC/NIH – Latest edition", or the current regulations in the country of use.
- Culture media should not be used as manufacturing material or components.
- Do not use reagents after the expiry date.
- Do not use broths that show signs of contamination.
- A faint greenish precipitate, that can easily be resuspended by shaking, does not alter the performance of the broth.
- Before use, make sure the tamper-proof systems are intact (capsule, seal, stopper).
- For the 3-liter bags, only pierce the rubber stopper once using the trocar.
- The medium must be used according to the procedure indicated in this package insert. Any change or modification in the procedure may affect the results.
- Pregnant women, immunocompromised patients and the elderly are particularly at risk for *Listeria monocytogenes*. It is recommended that those people avoid handling this organism. Pay careful attention to sterilizing the contaminated equipment before disposal.

**STORAGE CONDITIONS**

- Store the broths in their package at 2-25°C until the expiry date.
- Protect from light.
- Any opened 3-liter bags must be discarded at the end of the day.

**SPECIMENS**

Follow the recommendations in the current standards to perform specimen collection and preparation. Good laboratory practices for collection and transport should be respected and adapted to the type of specimen.
INSTRUCTIONS FOR USE
Perform the test according to the instructions in the package insert for VIDAS® LMX.

• For 3-liter bags
  1. Homogenize the bag.
  2. Remove the tamper-proof seal.
  3. Delicately perforate the rubber stopper using a trocar in order to pour the broth.
  4. Identify the samples using the removable labels on the bag.
The LMX broth supplement can be added directly to the 3-liter bag, as long as the required final concentration is obtained. In this case, the supplemented bag can be stored for up to 24 hours at 37°C ± 1°C.

• For Minibags
Minibags are used by transferring the broth into a blender bag containing the test sample (solid or liquid), if used as a pre-enrichment or dilution medium.

RESULTS AND INTERPRETATION
Refer to the package insert for VIDAS® LMX.

QUALITY CONTROL
LMX Broth is designed and developed to meet the strictest quality requirements. It also undergoes a bacteriological and immunological Quality Control on the VIDAS® system. The results of the strains tested in the batch by batch quality control are given on the quality control certificate available on the Technical Library that can be accessed via our corporate website (www.biomerieux.com).

LIMITATIONS OF THE METHOD
• LMX Broth has been developed and validated for the detection of Listeria monocytogenes from food and production environment samples using VIDAS® LMX. Any other use must be validated by the user.
• Growth depends on the requirements of each individual micro-organism. It is therefore possible that certain strains which have specific requirements may not develop.
• Given the wide variety of specimens analyzed, it is the responsibility of the user to validate the medium for its specific intended use.

WASTE DISPOSAL
Unused reagents may be considered as non hazardous waste and disposed of accordingly. Dispose of all used reagents as well as any other contaminated disposable materials following procedures for infectious or potentially infectious products. It is the responsibility of each laboratory to handle waste and effluents produced according to their nature and degree of hazardousness and to treat and dispose of them (or have them treated and disposed of) in accordance with any applicable regulations.

INDEX OF SYMBOLS

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<th>Symbol</th>
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<tr>
<td>XXX/Y</td>
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