HiFast™ Listeria Enrichment Broth Base

Recommended for the rapid and selective enrichment of *Listeria* species from food samples in 24 hours.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peptone</td>
<td>28.000</td>
</tr>
<tr>
<td>Salt mix</td>
<td>10.000</td>
</tr>
<tr>
<td>Carbohydrate mixture</td>
<td>6.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>7.4±0.2</td>
</tr>
</tbody>
</table>

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

**Directions**

Suspend 44.0 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Aseptically add the rehydrated contents of one vial of Rapid Listeria Selective Supplement (FD342). Mix well and dispense in sterile tubes or flasks as desired.

**Principle And Interpretation**

*Listeria* species are widely distributed and are isolated from soil, decaying vegetable matter, sewage, water, animal feed, fresh and frozen poultry, meats, raw milk, cheese and asymptomatic human and animal carriers (1). Only *Listeria monocytogenes* from the genus *Listeria*; causes infections in humans. *L.monocytogenes* primarily causes meningitis, encephalitis or septicemia in humans (2, 3). In pregnant women, *Listeria monocytogenes* often causes an influenza like bacteremic illness that, if untreated, may lead to amnionitis and infection of the fetus, resulting in abortion, still birth or premature birth. Contaminated foods are the primary vehicles of transmission (4).

HiFast™ Listeria Enrichment Broth Base is recommended for selective enrichment of *Listeria* species from food samples. This medium contains peptone and carbohydrate mixture which provide essential nutrients like carbon and nitrogenous compounds including vitamins, long chain amino acids and trace ingredients. Being nutritionally rich, the medium supports rapid growth of microorganisms in 18-24 hours. Salt mix helps in buffering the medium. The selective supplement added to the medium helps in inhibiting the non target organism. It can be used as an selective enrichment medium prior to plating on an selective or chromogenic medium for *Listeria*.

**Quality Control**

**Appearance**

Cream to yellow homogeneous free flowing powder

**Colour and Clarity of prepared medium**

Yellow coloured clear solution.

**Reaction**

Reaction of 4.4% w/v aqueous solution at 25°C. pH : 7.4±0.2

**pH**

7.20-7.60

**Cultural response**

Cultural characteristics observed with added Rapid Listeria Selective Supplement after an incubation at 30-35°C for 22-26 hours.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Inoculum (CFU)</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Staphylococcus aureus</em> ATCC 25923 (00034*)</td>
<td>&gt;=10⁹</td>
<td>inhibited</td>
</tr>
<tr>
<td><em>Listeria monocytogenes</em> serovar 1 ATCC 19111 (00020*)</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
<tr>
<td><em>Listeria monocytogenes</em> ATCC 7644</td>
<td>50-100</td>
<td>good-luxuriant</td>
</tr>
</tbody>
</table>

Please refer disclaimer Overleaf.
Storage and Shelf Life:
Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Product performance is best if used within stated expiry period.

Reference

Disclaimer:
User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.