



## Listeria Selective Agar Base

M1474

### Intended Use:

Recommended for selective isolation and cultivation of *Listeria monocytogenes* from clinical specimens.

### Composition\*\*

Ingredients	Gms / Litre
Tryptone	17.000
Soya peptone	3.000
Yeast extract	6.000
Sodium chloride	5.000
Dipotassium hydrogen phosphate	2.500
Dextrose (Glucose)	2.500
Agar	15.000
Final pH ( at 25°C)	7.3±0.2

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

### Directions

Suspend 51.0 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to room temperature and aseptically add rehydrated contents of 1 vial of Listeria Selective Supplement II, (FD063) or 2 vials of Listeria Selective Supplement II, (FD063I) as desired. Mix well before dispensing.

### Principle And Interpretation

*Listeria monocytogenes* has been isolated from numerous environmental sources such as silage, soil, decaying vegetation, sewage, damp earth, straw and faeces (1, 2). Listeria Selective Agar Base with Listeria Selective Supplement is used for isolation and cultivation of *L. monocytogenes* from clinical specimens. The basic media is formulated as per Lovett et al (3) with the addition of agar.

Tryptone, Soya peptone and yeast extract provide carbon and nitrogen compounds essential for bacterial metabolism. Dextrose is the energy source. The medium is rendered selective by addition of selective supplement. Amphotericin B inhibits the growth of saprophytic fungi. Nalidixic acid inhibits growth of gram-negative organisms and acriflavin suppresses gram-positive microorganisms (4, 5).

*Listeria monocytogenes* is a highly pathogenic organism and proper precautions should be taken while handling.

### Type of specimen"

Enkpkce"uc o rngu"

### Urgek o gp"Eqmgevkqp"cpf" J cp f nk pi <"

Hqt"enkpkce"uc o rngu"hqmqy"cr r tqr tkcvg"vge j p k s wgu"ht"j cp f nk pi"ur gek o g pu"cu"rgt"guvcdnku j g f"i wk f g nk pgu"\*6.7+0"

Chygt"wug."eqpvc o kpcvfg"o cvgtkcu"o wuv"dg"uvgtknk | g f" d { "cwvqencxkpi" dghqtg"fkuect f k pi 0"

### Warning and Precautions :

In Vitro diagnostic Use only. Read the label before opening the container. 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 clinical specimens. Safety guidelines may be referred in individual safety data sheets

### Limitations :

1. The medium is not differential, so further biochemical testing is required for identification between *Listeria* species.

## 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.

## Quality Control

### Appearance

Cream to yellow homogeneous free flowing powder

### Colour and Clarity of prepared medium

Fluorescent yellow coloured, clear to slightly opalescent solution.

### Reaction

Reaction of 5.1% w/v aqueous solution at 25°C. pH : 7.3±0.2

### pH

7.10-7.50

### Cultural Response

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

Organism	Inoculum (CFU)	Growth	Recovery
<i>Listeria monocytogenes</i> ATCC 19118	50-100	luxuriant	≥50%
<i>Listeria monocytogenes</i> ATCC 19112	50-100	luxuriant	≥50%
<i>Listeria monocytogenes</i> serovar 1 ATCC 19111 (00020*)	50-100	luxuriant	≥50%
<i>Escherichia coli</i> ATCC 25922 (00013*)	≥10 <sup>4</sup>	inhibited	0%
<i>Candida albicans</i> ATCC 10231 (00054*)	≥10 <sup>4</sup>	inhibited	0%
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	50-100	none-poor	≤10%

## Storage and Handling

Store bevy ggp 32/52 ÅE in a tightly closed container and the prepared medium at 4/: ÅE. Use before expiry date on the label. Qn opening, product should be properly stored dry, after tightly capping the bottle in order 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. Use before expiry date on the label.

Product performance is best if used within stated expiry period.

## Disposal

8 VHU PXVW HQVXUH VDIH GLVSRVDO E\ DXWRFODYLQJ DQG RU LQFLQH UD  
 HVWDEOLVKHG ODERUDWRU\ SURFHGXUHV LQ GLVSRVLQJ RI LQIHFWLRXV  
 VDPSOH PXVW EH GHFRQW DPLQDWHG DQG GLVSRVHG RI LQ DFFRUGDQFH Z

## Reference

1. Gray M. L., 1960, Science, 132:1767.
2. Weis J., and Seeliger H. P. R., 1975, Appl. Microbiol. 30:29.
3. Lovette J., Francis D.W and Hunt J.M., 1987, J. Food Protection, 50:188.
4. Lee W.K. and McClain D., 1986, Appl. Environ, Microbiol., 52:1215.
5. McClain D. and Lee W.H., 1988, J. Assoc. off. Anal. Chem., 71:660.

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### Disclaimer :

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