



## PRODUCT DATA SHEET

### RHAMNOSE BROTH

TM 1071

#### INTENDED USE

For demonstration of rhamnose fermentation by *Listeria monocytogenes*

#### COMPOSITION

| Ingredients        | Gms/Ltr |
|--------------------|---------|
| Meat Peptone       | 10.000  |
| Sodium chloride    | 5.000   |
| Meat extract       | 1.000   |
| Bromocresol purple | 0.020   |

#### PRODUCT SUMMARY AND EXPLANATION

*Listeria monocytogenes* is a gram-positive foodborne human pathogen responsible for serious infections in pregnant women that may ultimately result in abortion, stillbirth, birth of a child with neonatal listeriosis and meningitis or primary bacteremia in adults and juveniles. The tropism of *L. monocytogenes* for the central nervous system leads to severe disease, often with high mortality or with neurologic disorders among survivors

#### PRINCIPLE

Peptone from meat and meat extract provide nitrogenous compounds, carbon, sulfur and trace nutrients, which are essential for the growth of *Listeria* species. Sodium chloride maintains the osmotic equilibrium of the medium. Due to the fermentation of L-rhamnose and/or methyl  $\alpha$ -D-mannopyranoside (MMP) acid is produced. The pH indicator bromocresol purple turns yellow at acidic pH.

#### INSTRUCTIONS FOR USE

1. Dissolve 16.02 grams in 1000 ml distilled water.
2. Gently heat with gentle swirling to dissolve the medium completely.
3. Dispense in tubes containing inverted Durham's tubes
4. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
5. Aseptically add filter sterilized rhamnose solution (final concentration of 1%) to sterile media.



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### QUALITY CONTROL SPECIFICATIONS

**Appearance Dehydrated powder:** Light yellow to bluish grey colour, homogeneous free flowing powder

**Appearance of the prepared medium:** Purple colour, clear solution

**pH (at 25°C):**  $6.8 \pm 0.2$

### INTERPRETATION

Cultural characteristics observed for incubation period of 18 - 24 hours at  $35 \pm 2^\circ\text{C}$

| Organisms                     | ATCC  | Inoculum (cfu/ml) | Growth    | Acid                                | Gas               |
|-------------------------------|-------|-------------------|-----------|-------------------------------------|-------------------|
| <i>Listeria innocua</i>       | 33090 | 50-100            | Luxuriant | Positive reaction, yellow colour    | Negative reaction |
| <i>Listeria ivanovii</i>      | 19119 | 50-100            | Luxuriant | Negative reaction, no colour change | Negative reaction |
| <i>Listeria monocytogenes</i> | 19111 | 50-100            | Luxuriant | Positive reaction, yellow colour    | Negative reaction |
| <i>Listeria monocytogenes</i> | 19112 | 50-100            | Luxuriant | Positive reaction, yellow colour    | Negative reaction |

### STORAGE & STABILITY

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below  $25^\circ\text{C}$  and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

### REFERENCES

1. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Tenover F. C., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
2. Schweizersches Lebensmittelbuch, Jan. 201. Chapter 56.
3. Farber J.M. and Peterkin P.I., *L. monocytogenes*, a food-borne pathogen. Microbiol. Rev. 55: 476-511 (1991)



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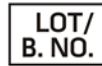
For In Vitro Diagnostic Use



Catalogue Number



Quantity



Lot / Batch Number



Temperature Unit



Manufacturer



Best Before



European Conformity



Consults Instructions  
for Use



ISO 9001:2015  
Certification



QR  
Code



Certification of  
Current Good Manufacturing Practices

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.