

Instructions for Use

LISTERIA ENRICHMENT BROTH

| | | |
|------------------------------|--|----------------|
| Cat. no. U93 | Listeria Enrichment Broth, 4oz. Glass Bottle, 99ml | 20 bottles/box |
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INTENDED USE

Hardy Diagnostics Listeria Enrichment Broth is used for the selective enrichment of *Listeria monocytogenes*.

This product is not intended to be used for the diagnosis of human disease.

SUMMARY

Listeria Enrichment Broth is used in procedures for the isolation of *Listeria monocytogenes* from clinical and environmental samples.^(1,8) Isolation procedures for *Listeria monocytogenes* typically involve one or more enrichment steps prior to plating on differential media.

Listeria Enrichment Broth contains peptones and dextrose as a source of growth factors. Phosphate salts maintain the proper pH of the media. The selective agents, nalidixic acid, and acriflavine act to inhibit gram-negative and gram-positive organisms, respectively. Cycloheximide is incorporated to inhibit saprophytic fungi.

FORMULA

Ingredients per liter of deionized water:*

| | |
|-------------------------------|--------|
| Pancreatic Digest of Casein | 17.0gm |
| Yeast Extract | 6.0gm |
| Sodium Chloride | 5.0gm |
| Papaic Digest of Soybean Meal | 3.0gm |
| Dextrose | 2.5gm |
| Dipotassium Phosphate | 2.5gm |
| Acriflavine | 15.0mg |
| Nalidixic Acid | 40.0mg |
| Cycloheximide | 50.0mg |

Final pH 7.3 +/- 0.2 at 25°C.

* Adjusted and/or supplemented as required to meet performance criteria.

STORAGE AND SHELF LIFE

Storage: Upon receipt store at 2-8°C away from direct light. Media should not be used if there are any signs of deterioration, discoloration, contamination, or if the expiration date has passed. Product is light and temperature sensitive; protect from light, excessive heat, moisture, and freezing.

The expiration date on the product label applies to the product in its intact packaging when stored as directed. The product may be used and tested up to the expiration date on the product label and incubated for the recommended incubation times as stated below.

Refer to the document "[Storage](#)" for more information.

PRECAUTIONS

This product may contain components of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not guarantee the absence of transmissible pathogenic agents. Therefore, it is recommended that these products be treated as potentially infectious, and handle observing the usual universal blood precautions. Do not ingest, inhale, or allow to come into contact with skin.

This product is for laboratory use only. It is to be used only by adequately trained and qualified laboratory personnel. Observe approved biohazard precautions and aseptic techniques. All laboratory specimens should be considered infectious and handled according to "standard precautions." Refer to the document "[Guidelines for Isolation Precautions](#)" from the Centers for Disease Control and Prevention.

For additional information regarding specific precautions for the prevention of the transmission of all infectious agents from laboratory instruments and materials, and for recommendations for the management of exposure to infectious disease, refer to CLSI document M29: *Protection of Laboratory Workers from Occupationally Acquired Infections*.

Sterilize all biohazard waste before disposal.

Refer to the document "[Precautions When Using Media](#)" for more information.

PROCEDURE

Sample Collection: Consult listed references for information on sample collection.^(1,4,6-8)

Method of Use: Allow medium to warm to room temperature prior to inoculation. Consult listed references for information concerning inoculation procedures.^(1,4,6-8)

INTERPRETATION OF RESULTS

Consult listed references for significance and interpretation of growth from Listeria Enrichment Broth.^(1,4,6-8)

LIMITATIONS

It is recommended that biochemical, immunological, molecular, or mass spectrometry testing be performed on colonies from pure culture for complete identification of bacteria and/or fungi.

Listeria Enrichment Broth is intended to aid in the isolation and identification of *Listeria monocytogenes*.

Refer to the document "[Limitations of Procedures and Warranty](#)" for more information.

MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as loops, other culture media, swabs, applicator sticks, incinerators, and incubators, etc., as well as serological and biochemical reagents, are not provided.

QUALITY CONTROL

Hardy Diagnostics tests each lot of commercially manufactured media using appropriate quality control microorganisms and quality specifications as outlined on the Certificate of Analysis (CofA) and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media*. The following microorganisms are routinely used for testing at Hardy Diagnostics:

| Test Organisms | Inoculation Method* | Incubation | | | Results |
|---|---------------------|------------|-------------|------------|--------------------------------|
| | | Time | Temperature | Atmosphere | |
| <i>Listeria monocytogenes</i> ATCC® 7644 | A | 24-48hr | 35°C | Aerobic | Growth |
| <i>Escherichia coli</i> ATCC® 25922 | B | 24-48hr | 35°C | Aerobic | Partial to complete inhibition |

* Refer to the document "[Inoculation Procedures for Media QC](#)" for more information.

USER QUALITY CONTROL

End users of commercially prepared culture media should perform QC testing in accordance with applicable government regulatory agencies, and in compliance with accreditation requirements. Hardy Diagnostics recommends end users check for signs of contamination and deterioration and, if dictated by laboratory quality control procedures or regulation, perform quality control testing to demonstrate growth or a positive reaction and to demonstrate inhibition or a negative reaction, if applicable. Hardy Diagnostics quality control testing is documented on the certificate of analysis (CofA) available from Hardy Diagnostics [Certificate of Analysis](#) website. Also refer to the document "[Finished Product Quality Control Procedures](#)," and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media* for more information on the appropriate QC procedures. See the references below.

PHYSICAL APPEARANCE

Listeria Enrichment Broth should appear clear, and bright yellow in color.

REFERENCES

1. Jorgensen, et al. *Manual of Clinical Microbiology*, American Society for Microbiology, Washington, D.C.
2. Tille, P., et al. *Bailey and Scott's Diagnostic Microbiology*, C.V. Mosby Company, St. Louis, MO.
3. Isenberg, H.D. *Clinical Microbiology Procedures Handbook*, Vol. I, II & III. American Society for Microbiology, Washington, D.C.
4. Koneman, E.W., et al. *Color Atlas and Textbook of Diagnostic Microbiology*, J.B. Lippincott Company, Philadelphia, PA.
5. MacFaddin, J.F. 1985. *Media for Isolation, Cultivation, Identification, Maintenance of Bacteria*, Vol. I. Williams & Wilkins, Baltimore, MD.
6. U.S. Food and Drug Administration. *Bacteriological Analytical Manual*, AOAC, Arlington, VA.
<http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm2006949.htm>.
7. Marshall, R.T., ed. 1992. *Standard Methods for the Examination of Dairy Products*, 16th ed. APHA, Washington, D.C.
8. Vanderzant, C. and D.F. Splittstoesser, (ed.). 1992. *Compendium of Methods for the Microbiological Examination of Foods*, 3rd ed. APHA, Washington, D.C.

9. *Quality Assurance for Commercially Prepared Microbiological Culture Media*, M22. Clinical Laboratory Standards Institute (CLSI - formerly NCCLS), Wayne, PA.

ATCC is a registered trademark of the American Type Culture Collection.

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[Ordering Information](#)

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