

***Listeria monocytogenes*, Strain FSL J2-064**

Catalog No. NR-13237

For research only. Not for human use.

Contributor:

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Product Description:

Bacteria Classification: *Listeriaceae*, *Listeria*

Species: *Listeria monocytogenes*

Strain: FSL J2-064

Serotype: 1/2b

Original Source: *Listeria monocytogenes* (*L. monocytogenes*), strain FSL J2-064 was isolated in April 1989 from bovine abortion.¹

Comment: The whole genome shotgun sequence of *L. monocytogenes*, strain FSL J2-064 is available in draft form (GenBank: AARO00000000).

L. monocytogenes is a Gram-positive, facultative intracellular bacterium that is extremely tolerant of external stresses (pH 3-12, temperatures ranging from 1 to 45°C, and high salt). *L. monocytogenes* encompasses a diversity strains with varied virulence and pathogenic potential. There are 13 serotypes (1/2a, 1/2b, 1/2c, 3a, 3b, 3c, 4a, 4b, 4c, 4d, 4e, 5 and 7) that have been isolated from mammalian, bird, fish and shellfish species as well as environmental sources. Of these, only 3 serotypes (1/2a, 1/2b, and 4b) are frequently isolated from outbreaks of human listeriosis. The most common cause of infection is through ingestion of contaminated foods, in particular milk, meat or vegetable products. The infective dose is unknown and varies with species.²

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in 0.5X Brain Heart Infusion broth supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:

NR-13237 was packaged aseptically, in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Condition:

Media:

Brain Heart Infusion broth or equivalent

Brain Heart Infusion agar or Sheep Blood agar

Incubation:

Temperature: 37°C

Atmosphere: Aerobic

Propagation:

1. Keep vial frozen until ready for use, then thaw.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tubes and plate at 37°C for 24 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: *Listeria monocytogenes*, Strain FSL J2-064, NR-13237."

Biosafety Level: 2

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2007; see www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm.

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References:

1. Dr. Patrick McDonough, personal communication.
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3. Milillo, S. R., J. M. Badamo and M. Wiedmann. "Contributions to Selected Phenotypic Characteristics of Large Species- and Lineage-specific Genomic Regions in *Listeria monocytogenes*." Food Microbiol. 26 (2009): 212-223. PubMed: 19171265.
4. Palumbo, J. D., et al. "Serotyping of *Listeria monocytogenes* by Enzyme-Linked Immunosorbent Assay and Identification of Mixed-Serotype Cultures by Colony Immunoblotting." J. Clin. Microbiol. 41 (2003): 564-571. PubMed: 12574247.
5. Cai, S., et al. "Rational Design of DNA Sequence-Based Strategies for Subtyping *Listeria monocytogenes*." J. Clin. Microbiol. 40 (2002): 3319-3325. PubMed: 12202573.
6. Rocourt, J. and C. Buchrieser. "The Genus *Listeria* and *Listeria monocytogenes*: Phylogenetic Position, Taxonomy, and Identification." In: E. T. Ryser and E. H. Marth, *Listeria, Listeriosis, and Food Safety* (3rd ed.) New York: Marcel Dekker, Inc., pp 1-20.
7. Hain, T., C. Steinweg and T. Chakraborty. "Comparative and Functional Genomics of *Listeria* Spp." J. Biotechnol. 126 (2006): 37-51. PubMed: 16757050.
8. Glaser, P., et al. "Comparative Genomics of *Listeria* Species." Science 294 (2001): 849-852. PubMed: 11679669.

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