

Listeria monocytogenes, Strain F6900

Catalog No. NR-13227

For research only. Not for human use.

Contributor and Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Listeriaceae, Listeria*

Species: *Listeria monocytogenes*

Strain: F6900

Serotype: 1/2a¹

Original Source: *Listeria monocytogenes* (*L. monocytogenes*), strain F6900 was isolated in 1989 from a single case of human listeriosis linked to the consumption of processed meat in the United States. Strain F6900 was derived from contaminated food made at the same turkey processing plant from which strains J0161 (NR-13225) and J2818 were isolated in a multi-state outbreak in 2000.¹

Comment: The complete genome of *L. monocytogenes*, strain F6900 has been drafted (GenBank: [AAU02000000](http://www.ncbi.nlm.nih.gov/GenBank/AAU02000000)).¹ For more sequencing information, refer to the Broad Institute's [Listeria Genome Project](http://www.broadinstitute.org/genome-projects/listeria).

L. monocytogenes is a Gram-positive, facultative intracellular bacterium that is extremely tolerant of external stresses (pH 3-12, temperatures ranging from 1°C to 45°C, and high salt). *L. monocytogenes* encompasses a diversity of 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.^{2,3}

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-13227 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 Conditions:

Media:

Nutrient or Brain Heart Infusion broth or equivalent Tryptic Soy Agar with 5% Sheep Blood or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Anaerobic

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 tube, slant and/or plate at 37°C for 24 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the BEI Resources, NIAID, NIH: *Listeria monocytogenes*, Strain F6900, NR-13227."

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, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. [Broad Institute *Listeria monocytogenes* Database](#)
2. Edman, D. C., M. B. Pollock and E. R. Hall. "*Listeria monocytogenes* L Forms: I. Induction Maintenance and Biological Characteristics." *J. Bacteriol.* 96 (1968): 352-357. PubMed: 4970647.
3. Angelakopoulos, H., et al. "Safety and Shedding of an Attenuated Strain of *Listeria monocytogenes* with a Deletion of *actA/plcB* in Adult Volunteers: A Dose Escalation Study of Oral Inoculation." *Infect. Immun.* 70 (2002): 3592-35601. PubMed: 12065500.

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