

***Listeria monocytogenes*, Strain Li 2**

Catalog No. NR-110

(Derived from ATCC® 19115™)

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Listeriaceae*, *Listeria*

Species: *Listeria monocytogenes*

Strain: Li 2

Serotype: 4b

Original Source: *Listeria monocytogenes* (*L. monocytogenes*), strain Li 2 was isolated from human cerebrospinal fluid, in 1953.

Comment: The genomes of two strains within serotype 4b of *L. monocytogenes* have been sequenced: strain F2365 (GenBank: [AE017262](#)) and strain H7858 (GenBank: [AADR00000000](#)). *L. monocytogenes*, strain F2365 is a cheese isolate from the listeriosis outbreak of 1985 in California, USA, and *L. monocytogenes*, strain H7858 is a hot dog isolate from the multistate listeriosis outbreak of 1998-1999 in the USA.¹

L. monocytogenes is a Gram-positive, facultative intracellular bacterium that is extremely tolerant of external stresses (pH 3 to 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

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in 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-110 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:

Brain Heart Infusion broth or equivalent

Brain Heart Infusion agar or Sheep Blood agar or equivalent

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 1 day.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Listeria monocytogenes*, Strain Li 2, NR-110."

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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