

***Listeria monocytogenes*, Strain Gibson**

Catalog No. NR-4098

For research only. Not for human use.

Contributor:
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Manufacturer:
BEI Resources

Product Description:

Bacteria Classification: *Listeriaceae*, *Listeria*

Species: *Listeria monocytogenes*

Strain: Gibson

Original Source: *Listeria monocytogenes* (*L. monocytogenes*), strain Gibson was isolated in 1934 from meningeal pus collected *post mortem* from a fatal case of human meningitis in Edinburgh, Scotland, United Kingdom.¹

Comment: NR-4098 was derived from ATCC® 7644™, which was deposited at ATCC® by J. Pelczar.

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 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-4098 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:
Tryptic Soy broth or Brain Heart Infusion broth or equivalent

Tryptic Soy agar with 5% Sheep Blood or Brain Heart Infusion agar or equivalent

Incubation:

Temperature: 30-37°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 tube, slant and/or plate for 24 to 48 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the BEI Resources, NIAID, NIH: *Listeria monocytogenes*, Strain Gibson, NR-4098."

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. Gibson, H. J. "A Pathogenic Diphtheroid Bacillus from a Fatal Case of Meningitis." J. Pathol. Bacteriol. 41 (1935): 239-252.
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): 35592-35601. PubMed: 12065500.
4. Edmunds, P. N., D. N. Nicholson and D. M. Douglas. "Two Cases of Listerial Meningitis in Infants." Br. Med. J. 2 (1957): 188-191. PubMed: 13446437.
5. Webb, R. A. and M. Barber. "*Listerella* in Human Meningitis." J. Pathol. Bacteriol. 45 (1937): 523-539.

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