

Listeria monocytogenes, Strain Gibson

Catalog No. NR-4098

Product Description: *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.

Lot¹: 64044864

Manufacturing Date: 11FEB2016

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Hemolysis ^{3,4} Motility (wet mount) ⁵ 25°C 37°C Biochemical tests: VITEK® MS (MALDI-TOF) Catalase activity ²	Gram-positive rods Report results β-hemolytic Report results Non-motile to slightly motile Consistent with <i>L. monocytogenes</i> Positive	Gram-positive rods Circular, low convex, entire, opaque, smooth and tan (Figure 1) β-hemolytic Motile Slightly motile Consistent with <i>L. monocytogenes</i> Positive
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1490 base pairs)	≥ 99% sequence identity to <i>L. monocytogenes</i> type strain (GenBank: X56153)	98.5% sequence identity to <i>L. monocytogenes</i> type strain (GenBank: X56153) ⁶⁻⁸
Purity (post-freeze)⁹	Growth consistent with <i>L. monocytogenes</i>	Growth consistent with <i>L. monocytogenes</i>
Viability (post-freeze)²	Growth	Growth

¹NR-4098 was produced by inoculation of seed culture (NRS-4098 lot 61834825) in Brain Heart Infusion broth, which was incubated for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Brain Heart Infusion agar kolles which were grown for 1 day at 37°C in an aerobic atmosphere to produce this lot.

²1 day at 37°C in an aerobic atmosphere on Brain Heart Infusion agar

³Hemolytic activity on blood agar is generally used to distinguish *L. monocytogenes* from other *Listeria* species.

⁴2 days at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

⁵*L. monocytogenes* strains are highly flagellated and motile at low temperatures (30°C and below), and are typically non-motile at temperatures of 37°C or above [see, Peel, M., W. Donachie and A. Shaw. "Temperature-Dependent Expression of Flagella of *Listeria monocytogenes* Studied by Electron Microscopy, SDS-PAGE and Western Blotting." *J. Gen. Microbiol.* 134 (1988): 2171-2178. PubMed: 3150978.]

⁶The type strain ATCC® 15313™ of *L. monocytogenes* is atypical of the species and its classification as a type strain has been a common topic for discussion. Jones, D. and H. P. R. Seeliger. "Designation of a New Type Strain for *Listeria monocytogenes*. Request for an Opinion." *Int. J. Syst. Bacteriol.* 33 (1983): 429; and Kathariou, S. and L. Pine. "The Type Strain(s) of *Listeria monocytogenes*: A Source of Continuing Difficulties." *Int. J. Syst. Bacteriol.* 41 (1991): 328-330. PubMed: 1906732.

⁷≥ 99% sequence identity to other *L. monocytogenes* strains

⁸Also consistent with other *Listeria* species

⁹Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



Date: 21 APR 2016

Signature:



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