Listeria monocytogenes, Strain 10403s

Catalog No. NR-13223

For research use only. Not for human use.

Contributor and Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: Listeriaceae, Listeria
Species: Listeria monocytogenes
Strain: 10403s
Serotype: 1/2a¹

Original Source: Listeria monocytogenes (L. monocytogenes), strain 10403s is a streptomycin-resistant isolate of strain 10403, which was isolated from a human skin lesion obtained by Montana State University.²,³

Comment: The complete genome of L. monocytogenes, strain 10403s has been drafted (GenBank: AARZ03000000).¹ For more sequencing information, refer to the Broad Institute's Listeria Genome Project.

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

L. monocytogenes, strain 10403s is widely used as a laboratory control strain.⁴,⁵

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-13223 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
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 tubes and plate at 37°C for 24 hours.

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Listeria monocytogenes, Strain 10403s, NR-13223.”

Biosafety Level: 2


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References:
1. Broad Institute Listeria monocytogenes Database

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