

***Escherichia coli*, Strain B6914-MS1**

Catalog No. NR-6
(Derived from ATCC® 43888™)

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Contributor:
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Manufacturer:
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Product Description:

Bacteria Classification: *Enterobacteriaceae, Escherichia*

Species: *Escherichia coli*

Strain: B6914-MS1 (3417-86; 98)

Serotype: O157:H7

Original Source:¹ Isolated in 1986 from human feces

Comment: *Escherichia coli*, strain B6914-MS1 was deposited at ATCC® in 1988 by Dr. Nancy A. Strockbine, The Enteric Bacteriology Section, Centers for Disease Control, Atlanta, Georgia.

Escherichia coli (*E. coli*) is a Gram-negative, rod-shaped bacterium which occurs singly or in pairs. It is a major facultative inhabitant of the large intestine. The serotype O157:H7 is associated with Hamburger disease, which is caused by the contamination of meat products by this organism.

The non-toxigenic *E. coli* strain B6914-MS1 carries the large plasmid, pO157, but the genes for Shiga toxins 1 and 2 that are found in most enterohemorrhagic *E. coli* (EHEC) strains are thought to be absent. *E. coli*, strain B6914-MS1 was characterized as negative for production of Shiga-like toxins 1 and 2 by cytotoxicity assay and negative for genes of these toxins by Southern analysis with internal toxin probes at the time of deposition.

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Tryptic Soy broth supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please colony-purify prior to initiating work.

Packaging/Storage:

NR-6 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 equivalent

Tryptic Soy 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 Tryptic Soy broth.
3. Use several drops of the suspension to inoculate a Tryptic Soy agar slant and/or plate.
4. Incubate the slant and/or plate at 37°C for 24 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Escherichia coli*, Strain B6914-MS1, NR-6."

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. Kim, H. H., et al. "Characteristics of Antibiotic-Resistant *Escherichia coli* O157:H7 in Washington State, 1984–1991." J. Infect. Dis. 170 (1994): 1606–1609. PubMed: 7996005.
2. Dumke, R., U. Schröter-Bobsin, E. Jacobs, and I. Röske. "Detection of Phages Carrying the Shiga Toxin 1 and 2 Genes in Waste Water and River Water Samples." Lett. Appl. Microbiol. 42 (2006): 48–53. PubMed: 16411919.
3. Bhagwat, A. A., et al. "Characterization of Enterohemorrhagic *Escherichia coli* Strains Based on Acid Resistance Phenotypes." Infect. Immun. 73 (2005): 4993–5003. PubMed: 16041014.
4. Ogwaro, B. A., et al. "Survival of *Escherichia coli* O157:H7 in Traditional African Yoghurt Fermentation." Int. J. Food Microbiol. 79 (2002): 105–112. PubMed: 12382690.
5. Venkateswaran, K., et al. "A Simple Filtration Technique to Detect Enterohemorrhagic *Escherichia coli* O157:H7 and Its Toxins in Beef by Multiplex PCR." Appl. Environ. Microbiol. 63 (1997): 4127–4131. PubMed: 9327582.

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