

***Escherichia coli*, Strain EDL 931**

**Catalog No. NR-3**

(Derived from ATCC® 35150™)

**For research use only. Not for human use.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

Bacteria Classification: *Enterobacteriaceae, Escherichia*

Species: *Escherichia coli*

Strain: EDL 931

Serotype: O157:H7

Original Source: Isolated in 1982 from human feces<sup>1</sup>

Comment: *Escherichia coli*, strain EDL 931 was deposited at ATCC® in 1983 by Dr. George K. Morris, 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 O157:H7 serotype is associated with Hamburger disease, which is caused by the contamination of meat products by this organism.

*E. coli*, strain EDL 931 carries the large pO157 plasmid as well as the genes for Shiga toxins 1 and 2 that are found in most enterohemorrhagic *E. coli* (EHEC) strains.<sup>2</sup>

**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-3 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 EDL 931, NR-3."

**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/bmb15/index.htm](http://www.cdc.gov/biosafety/publications/bmb15/index.htm).

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**References:**

1. Riley, L. W., et al. "Hemorrhagic Colitis Associated with a Rare *Escherichia coli* Serotype." N. Engl. J. Med. 308 (1983): 681–685. PubMed: 6338386.
2. Downes, F. P., et al. "Development and Evaluation of Enzyme-Linked Immunosorbent Assays for Detection of Shiga-Like Toxin I and Shiga-Like Toxin II." J. Clin. Microbiol. 27 (1989): 1292–1297. PubMed: 2666439.
3. Escobar-Páramo, P. et al. "A Specific Genetic Background Is Required for Acquisition and Expression of Virulence Factors in *Escherichia coli*." Mol. Biol. Evol. 21 (2004): 1085–1094. PubMed: 15014151.

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