

Escherichia coli*, Strain EH1534*Catalog No. NR-10148****For research only. Not for human use.****Contributor:**

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Product Description:

Bacteria Classification: *Enterobacteriaceae*, *Escherichia*

Species: *Escherichia coli*

Strain: EH1534

Serotype: O26:H11

Original Source: *Escherichia coli* (*E. coli*), strain EH1534, was isolated from a stool sample of a two year old female during the 2007 verocytotoxin-producing *E. coli* (VTEC) outbreak in Belgium.¹

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.

VTEC are important causes of gastrointestinal illness and hemolytic uremic syndrome in young children. *E. coli* serotype O157:H7 is considered the most clinically significant serotype, but serotypes O145 and O26 have also been associated with VTEC. The October 2007 VTEC outbreak in Belgium was associated with both O145 and O26 serotypes that were isolated from urine and stool samples of 12 patients and also from the contaminated ice cream.^{1,2}

E. coli, strain EH1534 is reported to have virulence markers VT1, *eaeA*, *ehxA*, *espP* and *katP* and an incomplete OI 122 pathogenicity island.²

Material Provided:

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

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

Packaging/Storage:

NR-10148 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 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 the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: *Escherichia coli*, Strain EH1534, NR-10148."

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, 2007; see www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm.

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References:

1. De Schrijver, K., et al. "Outbreak of Verocytotoxin-Producing *E. coli* O145 and O26 Infections Associated with the Consumption of Ice Cream Produced at a Farm, Belgium, 2007." *Euro. Surveill.* 13 (2008): 8041. PubMed: 18445416.
2. Buvens, G., et al. "Virulence Factors of Verocytotoxin-Producing *Escherichia coli* O145:H28 and O26:H11 Isolated During a HUS Outbreak in Belgium." PEN Conference: Epidemiology and Transmission of VTEC and Other Pathogenic *Escherichia coli*. September, 2008, Swedish Institute for Infectious Disease Control, Stockholm, Sweden. [PEN Conference 2008](#).

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