

Genomic DNA from *Escherichia coli*, Strain MDL 3562

Catalog No. NR-4640

For research use only. Not for human use.

Contributor:

Dr. J. Michael Janda, Chief, Microbial Diseases Laboratory, Division of Communicable Disease Control, California Department of Health Services, Richmond, California

Product Description:

Genomic DNA was isolated from a preparation of *Escherichia coli*, strain MDL 3562, serotype O157:H7.

Escherichia coli (*E. coli*), strain MDL 3562 was isolated in August 2006 from a human clinical sample collected at Mercy Medical Center in California, due to an outbreak linked to spinach consumption.

E. coli, strain MDL 3562 is known to react with the O157 antigen and thus, it is probable that it carries the pO157 plasmid. Additionally, this strain may carry the genes for hemolysin A (*hlyA*), Shiga toxin 2 (*stx2*) and intimin (*eaeA*) that are found in most enterohemorrhagic *E. coli* (EHEC) strains.¹

NR-4640 has been qualified for PCR applications by amplification of approximately 1500 bp of the 16S ribosomal RNA.

Material Provided:

Each vial contains 4–6 µg of bacterial genomic DNA in TE buffer (10 mM Tris-HCl and 1 mM EDTA, pH 7.4). The concentration is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

Packaging/Storage:

NR-4640 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Genomic DNA from *Escherichia coli*, Strain MDL 3562, NR-4640."

Biosafety Level: 1

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/bmb15/bmb15toc.htm.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government make any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

References:

1. Jay, M. T., et al. "*Escherichia coli* O157:H7 in Feral Swine near Spinach Fields and Cattle, Central California Coast." *Emerg. Infect. Dis.* 13 (2007): 1908–1911.
2. Riley, L. W., et al. "Hemorrhagic Colitis Associated with a Rare *Escherichia coli* Serotype." *N. Engl. J. Med.* 308 (1983): 681–685. PubMed: 6338386.
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.

ATCC® is a trademark of the American Type Culture Collection.

