

### Genomic DNA from *Escherichia coli*, Strain B2F1

Catalog No. NR-3049

For research use only. Not for human use.

**Contributor:**  
ATCC®

#### Product Description:

Genomic DNA was isolated from a preparation of *Escherichia coli*, strain B2F1, serotype O91:H21.

Enterohemorrhagic *E. coli* (EHEC) strain B2F1 was isolated from a human patient with hemolytic uremic syndrome in Toronto, Canada. *E. coli*, B2F1 is reported to produce two Shiga-like type II toxins, contain a large hemolysin-encoding plasmid, and is referred to as an EHEC and Shiga toxin-producing *E. coli* (STEC) strain.<sup>1-3</sup> Many EHEC strains encode potent toxins, similar to those of *Shigella dysenteriae*, which can cause severe intestinal, kidney and central nervous system disease.

NR-3049 has been qualified for PCR applications by amplification of approximately 1500 bp of the 16S ribosomal RNA. The presence of plasmid pO157 has been confirmed by PCR amplification of an approximately 3200 bp sequence.

#### Material Provided:

Each vial contains 4–6 µg of bacterial genomic DNA in TE buffer (10 mM Tris-HCl pH 7.4, 1 mM EDTA, pH 8.0). The concentration is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

#### Packaging/Storage:

NR-3049 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 B2F1, NR-3049.”

#### 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](http://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](http://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. Lindgren, S. W., et al. “The Specific Activities of Shiga-Like Toxin Type II (SLT-II) and SLT-II-Related Toxins of Enterohemorrhagic *Escherichia coli* Differ When Measured by Vero Cell Cytotoxicity but Not by Mouse Lethality.” Infect. Immun. 62 (1994): 623–631. PubMed: 8300218.
2. Ito, H., et al. “Cloning and Nucleotide Sequencing of Vero Toxin 2 Variant Genes from *Escherichia coli* O91:H21 Isolated from a Patient with the Hemolytic Uremic Syndrome.” Microb. Pathog. 8 (1990): 47–60. PubMed: 2185397.
3. Dean-Nystrom, E. A., et al. “Comparative Pathogenicity of *Escherichia coli* O157 and Intimin-Negative Non-O157 Shiga Toxin-Producing *E. coli* Strains in Neonatal Pigs.” Infect. Immun. 71 (2003): 6526–6533. PubMed: 14573674.

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