

***Escherichia coli*, Strain 3152-1**

Catalog No. NR-33195

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Enterobacteriaceae*, *Escherichia*

Species: *Escherichia coli*

Strain: 3152-1 (also referred to as UMEA 3152-1)

Original Source: *Escherichia coli* (*E. coli*), strain 3152-1 was isolated in 1996 from human urine in Sweden.¹

Comments: *E. coli*, strain 3152-1 was deposited as resistant to ampicillin, cefpodoxime, chloramphenicol, ciprofloxacin, gentamycin, mecillinam, streptomycin, sulfamethoxazole, tetracycline and trimethoprim, and positive for the presence of virulence genes *fimH*, *ibeA*, *chuA*, *yjaA*. Strain 3152-1 is part of an [E.coli UTI Bacteremia Initiative](#) at the Broad Institute.² The complete genome of *E. coli*, strain UMEA 3152-1 is available (GenBank: [AWBP00000000](#)).

E. coli is a Gram-negative, rod-shaped bacterium commonly found in the gut flora of warm-blooded animals and is the primary facultative anaerobe of the human gastrointestinal tract. While most *E. coli* strains are harmless and are an important part of a healthy intestinal tract, some serotypes are pathogenic, causing diarrhea, urinary tract infections, respiratory illness, pneumonia, or other illnesses in their host.³⁻⁵

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 purify prior to initiating work.

Packaging/Storage:

NR-33195 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 Nutrient broth or equivalent

Tryptic Soy agar or Nutrient agar or Tryptic Soy agar with 5% defibrinated sheep blood 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 tube, slant and/or plate at 37°C for 1 day.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: *Escherichia coli*, Strain 3152-1, NR-33195.”

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. Frimodt-Møller, N., Personal Communication.
2. Frimodt-Møller, N., et al. "*E. coli* as a Human Pathogen: Uncomplicated Urinary Tract Infection (UTI) and UTI-Induced Bacteremic *E. coli*." [Broad Institute](https://www.broadinstitute.org/files/shared/genomebio/E.coli_UTI_bacteraemia.pdf). <https://www.broadinstitute.org/files/shared/genomebio/E.coli_UTI_bacteraemia.pdf>
3. Nataro, J. P. and J. B. Kaper. "Diarrheagenic *Escherichia coli*." *Clin. Microbiol. Rev.* 11 (1998): 142-201. PubMed: 9457432.
4. Kaper, J. B., J. P. Nataro and H. L. Mobley. "Pathogenic *Escherichia coli*." *Nat. Rev. Microbiol.* 2 (2004): 123-140. PubMed: 15040260.
5. Croxen, M. A., et al. "Recent Advances in Understanding Enteric Pathogenic *Escherichia coli*." *Clin. Microbiol. Rev.* 26 (2013): 822-880. PubMed: 24092857.

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