

***Escherichia coli*, Strain A**

Catalog No. NR-8

(Derived from ATCC® 51657™)

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Enterobacteriaceae*, *Escherichia*

Species: *Escherichia coli*

Strain: A

Serotype: O157:H7

Original Source: *Escherichia coli* (*E. coli*) strain A was isolated from human clinical specimen in Washington state, 1989.¹

Comment: *E. coli*, strain A is reported to be resistant to streptomycin, sulfisoxazole and tetracycline.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.

E. coli, strain A and many other enterohemorrhagic *E. coli* (EHEC) strains release potent toxins, similar to those of *Shigella dysenteriae*, which can cause severe intestinal, kidney and central nervous system disease. *E. coli*, strain A carries virulence-associated genes located on both the chromosome and plasmid of the organism.

The presence of the plasmid pO157 and chromosomal virulence markers *stx1*, *stx2* and *eaeA* have been confirmed by PCR amplification of extracted DNA.

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-8 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 BEI Resources, NIAID, NIH: *Escherichia coli*, Strain A, NR-8.”

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. Kim, H. H., et al. "Characteristics of Antibiotic-Resistant *Escherichia coli* O157:H7 in Washington State, 1984-1991." J. Infect. Dis. 170 (1994): 1606-1609. PubMed: 7996005.
2. Lekkas, C., et al. "Survival of *Escherichia coli* O157:H7 in Galotyri Cheese Stored at 4 and 12°C." Food Microbiol. 23 (2006): 268-276. PubMed: 16943013.

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