

***Escherichia coli*, Strain 85.1284**

**Catalog No. NR-17663**

**For research only. Not for human use.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

Bacteria Classification: *Enterobacteriaceae, Escherichia*

Species: *Escherichia coli*

Strain: 85.1284

Serotype: O6:H31<sup>1</sup>

Original Source: *Escherichia coli* (*E. coli*), strain 85.1284 was isolated in 1985 from a human in the USA.<sup>1,2</sup>

Comment: *E. coli*, strain 85.1284 was selected to undergo complete genome sequencing at the [J. Craig Venter Institute](http://www.jcvi.org/).

*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.

Strain 85.1284 has been typed as an extraintestinal pathogenic *Escherichia coli* (ExPEC) strain.<sup>1,2</sup> ExPEC possess virulence traits that allow them to invade, colonize, and induce disease in bodily sites outside of the gastrointestinal tract. Virulence factors of ExPEC belonging to a multidrug-resistant clonal group A (CGA) have been associated with urinary tract infections.<sup>3-6</sup>

**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-17663 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 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 24 hours.

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Escherichia coli*, Strain 85.1284, NR-17663."

**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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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**References:**

1. DebRoy, C., Personal Communication.
2. Kapur, V., et al. "Genome Sequencing and Analysis of Pathogenic *Escherichia coli* Strains." J. Craig Venter Institute. (2009) <[http://gcid.jcvi.org/docs/STEC\\_White\\_Paper.pdf](http://gcid.jcvi.org/docs/STEC_White_Paper.pdf)>
3. Johnson, J. R., et al. "Rapid and Specific Detection of *Escherichia coli* Clonal Group A by Gene-Specific PCR." J. Clin. Microbiol. 42 (2004): 2618-2622. PubMed: 15184442.
4. Johnson, J. R., et al. "A Disseminated Multidrug-resistant Clonal Group of Uropathogenic *Escherichia coli* in Pyelonephritis." Lancet 359 (2002): 2249-2251. PubMed: 12103291.
5. Johnson, J. R., et al. "Distribution and Characteristics of *Escherichia coli* Clonal Group A." Emerg. Infect. Dis. 11 (2005): 141-145. PubMed: 15705341.
6. Manges, A. R., et al. "Widespread Distribution of Urinary Tract Infections Caused by a Multidrug-Resistant *Escherichia coli* Clonal Group." N. Engl. J. Med. 345 (2001): 1007-1013. PubMed: 11586952.
7. Johnson, J. R., et al. "Virulence Genotypes and Phylogenetic Background of *Escherichia coli* Serogroup O6 Isolates from Humans, Dogs, and Cats." J. Clin. Microbiol. 46 (2008): 417-422. PubMed: 18003805.

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