

***Escherichia coli*, Strain CFT073**

Catalog No. NR-2654

(Derived from ATCC® 700928™)

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Enterobacteriaceae*, *Escherichia*

Species: *Escherichia coli*

Strain: CFT073

Serotype: O6:H1:K2

Original Source: *Escherichia coli* (*E. coli*), strain CFT073 was originally obtained in 2000 from the blood of a woman with acute pyelonephritis and was deposited by Dr. G. Plunkett.¹

Comments: The complete genome of *E. coli*, strain CFT073 has been sequenced (5,231,430 base pairs; GenBank: [AE014075](#)).²

E. coli, strain CFT073 is a uropathogenic (UPEC) rod-shaped facultative anaerobe. It is one of the most common causes of non-hospital-acquired urinary tract infections. Unlike diarrheal pathogens, unpathogenic *E. coli* can behave both as harmless human intestinal inhabitants or as serious pathogens when translocating to the urinary tract or bloodstream. They have fimbrial operons as well as other virulence factors that allow colonization of the urinary tract.

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-2654 was packaged aseptically in 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 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 CFT073, NR-2654."

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 (BMBL). Current Edition. Washington, DC: U.S. Government Printing Office.

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References:

1. Mobley, H. L., et al. "Pyelonephritogenic *Escherichia coli* and Killing of Cultured Human Renal Proximal Tubular Epithelial Cells: Role of Hemolysin in Some Strains." Infect. Immun. 58 (1990): 1281–1289. PubMed: 2182540.
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3. Durant, L., et al. "Identification of Candidates for a Subunit Vaccine against Extraintestinal Pathogenic *Escherichia coli*." Infect. Immun. 75 (2007): 1916–25. PubMed: 17145948.
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5. Hancock, V. and P. Klemm. "Global Gene Expression Profiling of Asymptomatic Bacteriuria *Escherichia coli* during Biofilm Growth in Human Urine." Infect. Immun. 75 (2007): 966–976. PubMed: 17145952.
6. Brzuszkiewicz, E., et al. "How to Become a Uropathogen: Comparative Genomic Analysis of Extraintestinal Pathogenic *Escherichia coli* Strains." Proc. Natl. Acad. Sci. USA 103 (2006): 12879–12884. PubMed: 16912116.
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