

***Escherichia coli*, Strain UMN 026 (BAA-1161)**

Catalog No. NR-712

(Derived from ATCC® BAA-1161™)

For research only. Not for human use.

Contributor:

ATCC®

Product Description:

Bacteria Classification: *Enterobacteriaceae, Escherichia*

Species: *Escherichia coli*

Strain: UMN 026 (BAA-1161, PUTI 026)

Serotype: O17:K52:H18

Original Source: *Escherichia coli* (*E. coli*), strain UMN 026 was isolated from urine in 1999 from a female volunteer with acute cystitis in Minnesota.¹

Comment: *E. coli*, strain UMN 026 was deposited to the ATCC® in 2005 by James R. Johnson, M.D., Department of Medicine, University of Minnesota, Minneapolis. This strain can serve as a reference strain for *E. coli* Clonal Group A (CGA). The complete genome sequence of *E. coli*, strain UMN 026 is available (GenBank: CU928163).

Extraintestinal pathogenic *E. coli* (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.²⁻⁵

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in 0.5X 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-712 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 the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: *Escherichia coli*, Strain UMN 026 (BAA-1161), NR-712."

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, 2007; see www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm.

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References:

1. Sannes, M. R., M. A. Kuskowski, and J. R. Johnson. "Antimicrobial Resistance of *Escherichia coli* Strains Isolated from Urine of Women with Cystitis or Pyelonephritis and Feces of Dogs and Healthy Humans." J. Am. Vet. Med. Assoc. 225 (2004): 368-373. PubMed: 15328711.
2. 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.
3. Johnson, J. R., et al. "A Disseminated Multidrug-Resistant Clonal Group of Uropathogenic *Escherichia coli* in Pyelonephritis." Lancet 359 (2002): 2249-2251. PubMed: 12103291.
4. Johnson, J. R., et al. "Distribution and Characteristics of *Escherichia coli* Clonal Group A." Emerg. Infect. Dis. 11 (2005): 141-145. PubMed: 15705341.
5. 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.

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