

***Escherichia coli*, Strain UMN 308 (BAA-1162)**

Catalog No. NR-713

(Derived from ATCC® BAA-1162™)

For research only. Not for human use.

Contributor:

ATCC®

Product Description:

Bacteria Classification: *Enterobacteriaceae, Escherichia*

Species: *Escherichia coli*

Strain: UMN 308 (BAA-1162, PUTI 308)

Original Source: *Escherichia coli* (*E. coli*), strain UMN 308 was isolated in 1999 from the large intestine of a female volunteer in Minnesota.¹

Comment: *E. coli*, strain UMN 308 was deposited to the ATCC® in 2005 by James R. Johnson, M.D., Department of Medicine, University of Minnesota, Minneapolis.

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 UMN 308 is an uropathogenic *E. coli* (UPEC) that produces G fimbriae, which is essential for promoting bacterial adherence to receptor structures present on host receptors. Bacterial adhesion to host epithelial cell surfaces is prerequisite for colonization of mammalian tissues by pathogenic bacteria.^{2,3}

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-713 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 308 (BAA-1162), NR-713."

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. Tanskanen, J., et al. "The *gaf* Fimbrial Gene Cluster of *Escherichia coli* Expresses a Full-Size and a Truncated Soluble Adhesion Protein." J. Bacteriol. 183 (2001): 512-519. PubMed: 11133944.
3. Saarela, S., et al. "The *Escherichia coli* G-Fimbrial Lectin Protein Participates Both in Fimbrial Biogenesis and in Recognition of the Receptor *N*-Acetyl-D-Glucosamine." J. Bacteriol. 177 (1995): 1477-1484. PubMed: 7883703.

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