

Product Information Sheet for NR-17627

Escherichia coli, Strain 4.0522

Catalog No. NR-17627

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: 4.0522

Serotype: O111:H8^{1,2}

Original Source: *Escherichia coli* (*E. coli*), strain 4.0522 was isolated from a cow.^{1,2}

Comment: The complete genome of *E. coli*, strain 4.0522 was sequenced at the [J. Craig Venter Institute](http://www.jcraigventer.com) (GenBank: [AEZU00000000](http://www.ncbi.nlm.nih.gov/GenBank/AF2000000000)).

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 4.0522 is referred to as a non-O157, Shiga toxin-producing *E. coli* (STEC) strain.^{1,2} STEC bacteria can cause diarrhea in humans and several STEC serotypes have been frequently associated with severe human disease, such as hemorrhagic colitis and hemolytic uremic syndrome. The *E. coli* 4.0522 genome encodes for both Shiga-like type I toxin (Stx1) and Shiga-like type II toxin (Stx2).^{1,2}

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-17627 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% 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 4.0522, NR-17627."

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. 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_WhitePaper.pdf>

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