Enterococcus faecium, Strain E2620

Catalog No. NR-31954

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Contributor:

Michael S. Gilmore, Sir William Osler Professor of Ophthalmology, Department of Ophthalmology, Massachusetts Eye and Ear Infirmary, Boston, Massachusetts, USA

Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Enterococcaceae, Enterococcus*
Species: *Enterococcus faecium*
Strain: E2620 (also referred to as EnGen0038[2])
Original Source: *Enterococcus faecium* (*E. faecium*), strain E2620 was isolated in 2006 from the blood of a hospitalized patient in the Netherlands.[1,2]
Comments: *E. faecium*, strain E2620 was deposited as MLST (ST) 331.[1,2] *E. faecium*, strain E2620 is part of a genome sequencing project at the Broad Institute.[3] The complete genome of *E. faecium*, strain E2620 has been sequenced (GenBank: AHXW00000000).

E. faecium is a Gram-positive, facultative anaerobic coccus that is a commensal inhabitant of the gastrointestinal tract of both humans and animals.[4-6] *E. faecium* is an emerging and challenging nosocomial pathogen due to its inherent hardiness and ability to develop antibiotic resistance.[4,6] Its large open pan-genome allows for horizontal gene transfer between *E. faecium* and other pathogenic and non-pathogenic bacteria to adapt to changing environments.[4,7] The large majority of strains isolated from nosocomial infections have been classified as CC17, with a distinct genetic lineage characterized by ampicillin resistance and a pathogenicity island carrying the *esp* gene, which is known to contribute virulence in an animal model.[4,7,8] Two other virulence genes, *hyl* and *acm*, have been identified.[4]

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-31954 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 Brain Heart Infusion broth or equivalent
Tryptic Soy agar or Tryptic Soy agar with 5% defibrinated sheep blood or Brain Heart Infusion agar or equivalent
Incubation:
Temperature: 35 to 37°C
Atmosphere: Aerobic (with or without 5% CO_2) or anaerobic
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 tube, slant and/or plate for 1 day.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Enterococcus faecium*, Strain E2620, NR-31954."

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:

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6. Arias, C. A. and B. E. Murray. "The Rise of the *Enterococcus*: Beyond Vancomycin Resistance." Nat. Rev. Microbiol. 10 (2012): 266-278. PubMed: 22421879.
7. Heikens, E., et al. "Identification of a Novel Genomic Island Specific to Hospital-Acquired Clonal Complex 17 *Enterococcus faecium* Isolates." Appl. Environ. Microbiol. 74 (2008): 7094-7097. PubMed: 18836023.
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E-mail: contact@beiresources.org
Tel: 800-359-7370
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