Product Information Sheet for NR-31971

Enterococcus faecalis, Strain SF24413

Catalog No. NR-31971

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Enterococcaceae, Enterococcus*
Species: *Enterococcus faecalis*
Strain: SF24413 (also referred to as EnGen0238)
Original Source: *Enterococcus faecalis (E. faecalis),* strain SF24413 was isolated in 2002 from a urine sample obtained in Michigan, USA.[1]
Comments: *E. faecalis*, strain SF24413 is reported to be resistant to erythromycin, gentamicin and vancomycin.[1,2,3] The complete genome of *E. faecalis*, strain SF24413 has been sequenced (GenBank: AJAX00000000).

E. faecalis is a Gram-positive, facultatively anaerobic coccus that is a commensal inhabitant of the gastrointestinal and female genital tract.[4] It is also the most frequently isolated species, often as a monoinfection, from root canals of endodontically treated teeth with persistent apical periodontitis.[5] *E. faecalis* is an opportunistic pathogen and has become a serious concern in hospitals because of its inherent hardiness and high levels of antibiotic resistance.[6] Virulent strains often express a cytolysin toxin that is encoded on various mobile genetic elements, pathogenicity islands and conjugative plasmids.[7]

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-31971 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 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: 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 the 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 faecalis*, Strain SF24413, NR-31971."

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:

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2. Gilmore, M. S., Personal Communication.
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4. Schleifer, K. H. and R. Kilpper-Bälz. "Transfer of Streptococcus faecalis and Streptococcus faecium to the Genus Enterococcus nom. rev. as Enterococcus faecalis comb. nov. and Enterococcus faecium comb. nov." Int. J. Syst. Bacteriol. 34 (1984): 31-34.
5. Stevens, R. H., O. D. Porras and A. L. Delisle. "Bacteriophages Induced from Lysogenic Root Canal Isolates of Enterococcus faecalis." Oral Microbiol. Immunol. 24 (2009): 278-284. PubMed: 19572888.
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.
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8. AbdelKhalek A., et al. "Repurposing Ebselen for Decolonization of Vancomycin-Resistant Enterococci (VRE)." PLoS One 13 (2018): e0199710. PubMed: 29953486.

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