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SUPPORTING INFECTIOUS DISEASE RESEARCH

Product Information Sheet for HM-200

Enterococcus faecalis, Strain HH22

Catalog No. HM-200

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Enterococcaceae, Enterococcus*
Species: *Enterococcus faecalis*
Strain: HH22 (also referred to as TX0921 and EnGen0297)
Original Source: *Enterococcus faecalis* (*E. faecalis*), strain HH22 was isolated in July 1981 from a clinical specimen submitted to the microbiology laboratory of Hermann Hospital in Houston, Texas, USA.[1,2]
Comments: *E. faecalis*, HH22 (HMP ID 0346) is reported to be the first known beta-lactamase producing isolate and resistant to gentamicin.[1] This strain is a reference genome for The Human Microbiome Project (HMP). HMP is an initiative to identify and characterize human microbial flora. *E. faecalis* HH22 was sequenced at the Human Genome Sequencing Center at Baylor College of Medicine (GenBank: ACIX00000000).
Note: HMP material is taxonomically classified by the depositor. Quality control of these materials is only performed to demonstrate that the material distributed by BEI Resources is identical to the deposited material.

E. faecalis is a Gram-positive, facultatively anaerobic cocci that inhabits the gastrointestinal and female genital tract. It is also the most frequently isolated species, often as a monoinfection, from root canals of endodontically treated teeth with persistent apical periodontitis.[3] *E. faecalis* is an opportunistic pathogen and has become a serious concern in hospitals because of its inherent hardiness and antibiotic resistance. The bacterium produces a cytolysin toxin that is encoded on various mobile genetic elements, pathogenicity islands, and conjugative plasmids.[4]

Material Provided:

Each vial of lot 60190300 contains approximately 0.5 mL of bacterial culture in Brain Heart Infusion broth supplemented with 10% glycerol. Each vial of lot 64498968 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:

HM-200 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 with 5% defibrinated 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 as part of the Human Microbiome Project: *Enterococcus faecalis*, Strain HH22, HM-200."

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. Mederski-Samoraj, B. D. and B. E. Murray. "High-Level Resistance to Gentamicin in Clinical Isolates of Enterococci." J. Infect. Dis. 147 (1983): 751-757. PubMed: 6404994.
2. Murray, B. E., et al. "Evidence for Clonal Spread of a Single Strain of Beta-Lactamase-Producing *Enterococcus (Streptococcus) faecalis* to Six Hospitals in Five States." J. Infect. Dis. 163 (1991): 780-785. PubMed: 1901330.
3. 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.
4. McBride, S. M., et al. "Genetic Variation and Evolution of the Pathogenicity Island of *Enterococcus faecalis*." J. Bacteriol. 191 (2009): 3392-3402. PubMed: 19270086.
5. Solheim, M., et al. "Comparative Genomic Analysis Reveals Significant Enrichment of Mobile Genetic Elements and Genes Encoding Surface Structure-Proteins in Hospital-Associated Clonal Complex 2 *Enterococcus faecalis*." BMC Microbiol. 11: (2011) 3. PubMed: 21205308.

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