Staphylococcus epidermidis, Strain VCU013

Catalog No. NR-46376

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Contributor:
Network on Antimicrobial Resistance in Staphylococcus aureus (NARSA), NIAID, NIH

Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: Staphylococcaceae, Staphylococcus Species: Staphylococcus epidermidis
Strain: VCU013
NARSA Catalog Number: NRS848
Original Source: Staphylococcus epidermidis (S. epidermidis), strain VCU013 is of unknown origin.1
Comments: The complete genome sequence of S. epidermidis, strain VCU013 is available (GenBank: JHTZ00000000).

S. epidermidis is a Gram-positive, cluster-forming, coagulase-negative coccus which is part of the normal flora of the skin and nostrils. Recently, it has become a common cause of hospital-acquired infections, particularly infections on implanted medical devices.2 A number of factors, such as biofilm formation, small colony variants and a reduced susceptibility to a number of antibiotics, contribute to its success as a cause of nosocomial infections.3-7 Approximately 75 to 90% of hospital isolates are methicillin-resistant S. epidermidis (MRSE) and an increasing number of isolates have reduced susceptibility to vancomycin.2 Similar to S. aureus, methicillin resistance is conferred by the mecA gene, whereas the reduced susceptibility to vancomycin is due to cell wall alterations including altered cross-linking and thickening of the wall.2,8-10 It is believed that S. epidermidis can serve as a reservoir for antibiotic resistant genes and other genomic islands for S. aureus which can acquire the genes through uni-directional horizontal gene transfer.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-46376 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:
Brain Heart Infusion broth or Tryptic Soy broth or equivalent Brain Heart Infusion agar or Tryptic Soy agar or 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 1 day.

Citation:
Acknowledgment for publications should read “The following reagent was provided by the Network on Antimicrobial Resistance in Staphylococcus aureus (NARSA) for distribution by BEI Resources, NIAID, NIH: Staphylococcus epidermidis, Strain VCU013, NR-46376.”

Biosafety Level: 2


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References:
1. NARSA, NRS848

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