**Staphylococcus epidermidis**, Strain VCU071

**Catalog No. NR-46386**

For research use only. Not for human use.

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

**Manufacturer:** BEI Resources

**Product Description:**
- **Bacteria Classification:** Staphylococcaceae, Staphylococcus
- **Species:** Staphylococcus epidermidis
- **Strain:** VCU071
- **NARSA Catalog Number:** NRS858
- **Original Source:** Staphylococcus epidermidis (S. epidermidis), strain VCU071 is of unknown origin.¹
- **Comments:** The complete genome sequence of *S. epidermidis*, strain VCU071 is available (GenBank: AGUB00000000).

*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.³⁶ 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 ⁴ ⁹ 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-46386 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 VCU071, NR-46386.”

**Biosafety Level:** 2

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References:
1. NARSA, NRS858

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