**Product Information Sheet for NR-45891**

**Staphylococcus epidermidis, Strain W25756**

**Catalog No. NR-45891**

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:** W25756
- **NARSA Catalog Number:** NRS60
- **Original Source:** *Staphylococcus epidermidis* (S. epidermidis), strain W25756 was isolated in April 2001 from the bloodstream of a 73-year-old woman in Oregon, USA.¹
- **Comments:** S. epidermidis, strain W25756 is a vancomycin-intermediate S. epidermidis (VISE) strain and was deposited as positive for *mec* and negative for *vanA, vanB, vanC, vanD* and *vanE*.¹

*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.³⁻⁵ Approximately 75 to 90% of hospital isolates are methicillin-resistant *S. epidermidis* (MRSE) and an increasing number of isolates have reduced susceptibility to vancomycin.⁶⁻⁷ 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.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.⁵

**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-45891 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 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 18 to 24 hours.

**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 W25756, NR-45891.”

**Biosafety Level:**
2

**Disclaimers:**
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References:
1. NARSA, NRS60