**Staphylococcus epidermidis**, Strain NRS34

Catalog No. NR-45879

For research use only. Not for human use.

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

**Manufacturer:**
BEI Resources

**Product Description:**

**Bacteria Classification:** *Staphylococcaceae, Staphylococcus*

**Species:** *Staphylococcus epidermidis*

**Strain:** NRS34

**NARSA Catalog Number:** NRS34

**Original Source:** *Staphylococcus epidermidis* (S. *epidermidis*), strain NRS34 was isolated in October 2000 from a catheter tip of an 83-year-old male ICU inpatient in California, USA.

**Comments:** *S. epidermidis*, strain NRS34 is a vancomycin-intermediate *S. epidermidis* (VISE) strain and was deposited as positive for mec; negative for vanA, vanB, vanC, vanD and vanE; resistant to penicillin, oxacillin, ciprofloxacin, trimethoprim/sulfamethoxazole and gentamicin; and sensitive to quinupristin/dalfopristin, tetracycline and teicoplanin.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.2

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 unidirectional 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-45879 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 1 day

**Citation:**
Acknowledgment for publications should read “The following reagent was provided by the Network on Antimicrobial Resistance in *Staphylococcus aureus* (NARS) for distribution by BEI Resources, NIAID, NIH: *Staphylococcus epidermidis*, Strain NRS34, NR-45879.”

**Biosafety Level:**

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**Disclaimers:**

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References:
1. NARSA, NRS34

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