**Staphylococcus epidermidis**, Strain 12333

**Catalog No. NR-45861**

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 epidermidis*

**Species:** *Staphylococcus epidermidis*

**Strain:** 12333

**NARSA Catalog Number:** NRS7

**Original Source:** *Staphylococcus epidermidis* (S. epidermidis), strain 12333 was isolated in November 1999 in California, USA.

**Comments:** *S. epidermidis*, strain 12333 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, clindamycin, erythromycin and gentamicin and sensitive to quinupristin/dalfopristin, chloramphenicol, rifampin and tetracycline.¹²

*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.³ 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.²⁷ Approximately 75 to 90% of hospital isolates are methillin-resistant *S. epidermidis* (MRSE) and an increasing number of isolates have reduced susceptibility to vancomycin.³ 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.³⁵,¹⁰,¹¹ 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-45861 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 12333, NR-45861.”

**Biosafety Level:** 2


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References:
1. NARSA, NRS7

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