Staphylococcus epidermidis, Strain W25756

Catalog No. NR-45891

For research use only. Not for use in humans.

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

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 reduced susceptibility to a number of antibiotics, contribute to its success as a cause of nosocomial infections.3,4,5,6,7 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.2,6,8,10 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-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 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 through BEI Resources, NIAID, NIH: Staphylococcus epidermidis, Strain W25756, NR-45891.”

Biosafety Level: 2

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References:
1. NARS, NRS60

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