

Staphylococcus epidermidis, Strain NRS34

Catalog No. NR-45879

Product Description: *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. *S. epidermidis*, strain NRS34 is a vancomycin-intermediate *S. epidermidis* (VISE) strain and was deposited as positive for *mec* and negative for *vanA*, *vanB*, *vanC*, *vanD* and *vanE*.

Lot¹: 70011106

Manufacturing Date: 20DEC2017

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Motility (wet mount) Hemolysis ² Biochemical characterization Catalase Coagulase ³ VITEK [®] 2 Compact (GP Card) VITEK [®] MS (MALDI-TOF)	Gram-positive cocci Report results Report results Report results Positive Report results <i>S. epidermidis</i> (≥ 89%) <i>S. epidermidis</i>	Gram-positive cocci Circular, low convex, entire, smooth and white (Figure 1) Non-motile Non-hemolytic Positive Negative <i>S. epidermidis</i> (98%) <i>S. epidermidis</i> (99.9%)
Antibiotic Susceptibility Profile⁴ VITEK [®] (AST-GP71 card) Beta-lactamase ⁵ Cefoxitin screen Benzylpenicillin Oxacillin Gentamicin Ciprofloxacin Levofloxacin Moxifloxacin Clindamycin (inducible resistance) Erythromycin Quinupristin/dalfopristin Linezolid Vancomycin Daptomycin Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole Etest [®] antibiotic test strips ⁹ Teicoplanin	Report results Report results Report results Resistant Resistant Resistant Report results Report results Report results Report results Sensitive Report results Intermediate Non-susceptible Report results Sensitive Report results Report results Report results Resistant Sensitive	Positive Positive Resistant (≥ 0.5 µg/mL) Resistant (≥ 4 µg/mL) Sensitive (= 4 µg/mL) ⁶ Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Positive ⁷ Resistant (≥ 8 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (= 2 µg/mL) Intermediate (4-8 µg/mL) Non-susceptible (= 2 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (= 0.25 µg/mL) ⁸ Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (= 80 µg/mL) Sensitive (= 8 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 740 base pairs)	≥ 99% sequence identity to <i>S. epidermidis</i> type strain (GenBank: Z26894)	100% sequence identity to <i>S. epidermidis</i> type strain (GenBank: Z26894) ¹⁰

TEST	SPECIFICATIONS	RESULTS
Purity (post freeze) ¹¹	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze) ²	Growth	Growth

¹*S. epidermidis* was deposited to BEI Resources as part of the NARSA collection. NR-45879 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles, which were grown 1 day at 37°C in an aerobic atmosphere to produce this lot.

²1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

³1 day at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

⁴Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

⁵The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).

⁶*S. epidermidis*, strain NRS34 was deposited as having resistance to gentamicin. Antibiotic susceptibility testing performed in duplicate determined that this strain is sensitive to gentamicin.

⁷The VITEK® AST-GP71 card tests for both clindamycin resistance and inducible clindamycin resistance (ICR). A positive ICR test is indicative of inducible MLS_B resistance, which confers resistance to macrolides, lincosamides, and type B streptogramin and the isolate should be considered resistant to clindamycin. *S. epidermidis*, strain NRS34 was found to be sensitive to clindamycin but had a positive ICR test and therefore is considered resistant to clindamycin. For additional information, please refer to Mahesh, C. B., B. K. Ramakant and V. S. Jagadeesh. "The Prevalence of Inducible and Constitutive Clindamycin Resistance Among the Nasal Isolates of Staphylococci." *J. Clin. Diagn. Res.* 7 (2013): 1620-1622. PubMed: 24086856.

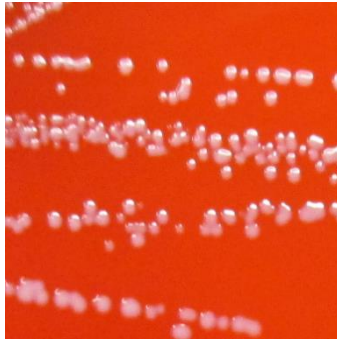
⁸MIC Interpretation Guideline: EUCAST Version 4.0 (2014)

⁹1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar

¹⁰Also consistent with other *Staphylococcus* species

¹¹Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with 5% CO₂ on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



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Program Manager or designee, ATCC Federal Solutions

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