

Staphylococcus aureus, Strain RN0025

Catalog No. NR-45935

Product Description: *Staphylococcus aureus* (*S. aureus*), strain RN0025 is lysogenic for phage Φ 13 and was derived from UV treatment of *S. aureus*, strain RN1 (NCTC8325). *S. aureus*, strain RN0025 is a methicillin-sensitive *S. aureus* (MSSA) strain.

Lot¹: 63622038

Manufacturing Date: 09JUL2015

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Motility (wet mount) Hemolysis ² Biochemical characterization Catalase Coagulase ⁴ VITEK [®] 2 Compact (GP card)	Gram-positive cocci Report results Report results Report results Positive Report results Consistent with <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and cream (Figure 1) Non-motile β -hemolytic ³ Positive Positive Consistent with <i>S. aureus</i>
Antibiotic Susceptibility Profile VITEK [®] (AST-GP71 card) ⁵ Cefoxitin screen Benzylpenicillin Oxacillin Gentamicin Ciprofloxacin Levofloxacin Moxifloxacin Clindamycin (inducible resistance) Erythromycin Clindamycin Quinupristin/dalfopristin Linezolid Daptomycin Vancomycin Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole Etest [®] antibiotic test strips ⁷ Chloramphenicol ⁸ Teicoplanin ⁸	Report results Report results Sensitive Sensitive Sensitive Report results Report results Report results Report results Sensitive Sensitive Sensitive Sensitive Report results Sensitive Sensitive Report results Report results Report results Report results Report results Sensitive Report results Sensitive	Negative Resistant ($\geq 0.5 \mu\text{g/mL}$) ⁶ Sensitive ($\leq 0.25 \mu\text{g/mL}$) Sensitive ($\leq 0.5 \mu\text{g/mL}$) Sensitive ($\leq 0.5 \mu\text{g/mL}$) Sensitive ($\leq 0.12 \mu\text{g/mL}$) Sensitive ($\leq 0.25 \mu\text{g/mL}$) Negative Sensitive ($\leq 0.25 \mu\text{g/mL}$) Sensitive ($\leq 0.25 \mu\text{g/mL}$) Sensitive ($\leq 0.25 \mu\text{g/mL}$) Sensitive (= $2 \mu\text{g/mL}$) Sensitive (= $0.5 \mu\text{g/mL}$) Sensitive ($\leq 0.5 \mu\text{g/mL}$) Sensitive ($\leq 0.5 \mu\text{g/mL}$) Sensitive ($\leq 1 \mu\text{g/mL}$) Sensitive ($\leq 0.12 \mu\text{g/mL}$) Sensitive ($\leq 16 \mu\text{g/mL}$) Sensitive ($\leq 0.5 \mu\text{g/mL}$) Sensitive ($\leq 10 \mu\text{g/mL}$) Sensitive (= $1.5 \mu\text{g/mL}$) Sensitive (= $8 \mu\text{g/mL}$)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (1500 base pairs)	Consistent with <i>S. aureus</i>	Consistent with <i>S. aureus</i>
Purity (post-freeze)⁹	Growth consistent with <i>S. aureus</i>	Growth consistent with <i>S. aureus</i>
Viability (post-freeze)²	Growth	Growth

- ¹*S. aureus*, strain RN0025 was deposited to BEI Resources as part of the NARSA collection. NR-45935 was produced by inoculation of the deposited material into Brain Heart Infusion 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 Brain Heart Infusion agar with 5% defibrinated sheep blood
- ³*S. aureus*, strain RN0025 is reported to be non-beta-hemolytic due to the integration of $\Phi 13$ in *hlyB*; ATCC® quality control observed beta-hemolysis. For additional information about hemolysis in RN1 and its derivatives, please refer to Herbert, S., et al. "Repair of Global Regulators in *Staphylococcus aureus* 8325 and Comparative Analysis with Other Clinical Isolates." *Infect. Immun.* 78 (2010): 2877-2889. Pubmed: 20212089.
- ⁴4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)
- ⁵Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)
- ⁶*S. aureus*, strain RN0025 was deposited as sensitive to penicillin. Antibiotic susceptibility testing performed in duplicate determined that *S. aureus*, strain RN0025 is resistant to benzylpenicillin and positive for beta-lactamase production (Cefinase™ Paper Disc BBL™ 231650).
- ⁷1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar
- ⁸For both chloramphenicol (bioMérieux Etest® 412308) and teicoplanin (bioMérieux Etest® 412459), a MIC ≤ 8 µg/mL is sensitive, a MIC = 16 µg/mL is intermediate and a MIC ≥ 32 µg/mL is resistant.
- ⁹Purity of this lot was assessed for 8 days at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



Date: 28 OCT 2015

Signature:

BEI Resources Authentication

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