

Staphylococcus haemolyticus, Strain NRS62

Catalog No. NR-45892

Product Description: *Staphylococcus haemolyticus* (*S. haemolyticus*), strain NRS62 was isolated in 2000 from the dialysis fluid of a 58-year-old female renal ward inpatient in Texas, USA. *S. haemolyticus*, strain NRS62 was deposited as a glycopeptide-intermediate *S. haemolyticus* strain.

Lot¹: 70011777

Manufacturing Date: 12JAN2018

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)	Gram-positive cocci Report results Report results Report results Positive Negative <i>S. haemolyticus</i> (≥ 89%)	Gram-positive cocci Circular, convex, entire, smooth and white (Figure 1) Non-motile β-hemolytic Positive Negative <i>S. haemolyticus</i> (99%)
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 Daptomycin Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole Etest [®] antibiotic test strips ⁹ Teicoplanin Vancomycin	Report results Report results Report results Resistant Resistant Resistant Resistant Report results Report results Report results Report results Resistant Sensitive Sensitive Susceptible Report results Report results Report results Report results Report results Resistant Resistant Intermediate	Positive Negative ⁶ Resistant (≥ 0.5 µg/mL) Resistant (= 1-2 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Resistant (= 4 µg/mL) Positive ⁷ Resistant (≥ 8 µg/mL) Sensitive (= 0.5 µg/mL) Sensitive (= 2 µg/mL) Susceptible (= 1 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (≥ 16 µg/mL) Resistant (= 1 µg/mL) ⁸ Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (= 80 µg/mL) Intermediate (= 24 µg/mL) ¹⁰ Intermediate (= 12-16 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 750 base pairs)	≥ 99% sequence identity to <i>S. haemolyticus</i> , type strain (GenBank: D83367.1)	99.9% sequence identity to <i>S. haemolyticus</i> , type strain (GenBank: D83367.1) ¹¹
Purity (post-freeze)¹²	Consistent with expected colony morphology	Consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

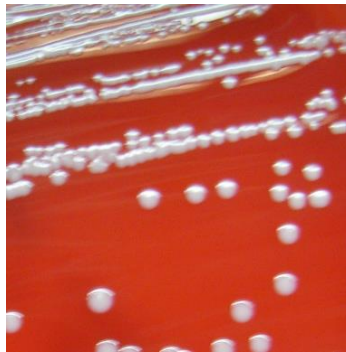
¹ *S. haemolyticus*, strain NRS62 was deposited to BEI Resources as part of the NARSA collection. NR-45892 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles which were grown 1 day at 37°C in an aerobic atmosphere to produce this lot.

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

³ 1 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).
- ⁶The VITEK® AST-GP71 card tests both ceftazidime and oxacillin susceptibilities to determine the final oxacillin interpretation based on CLSI guidelines. However, for coagulase-negative *Staphylococcal* (CoNS) species, it has been reported that VITEK cards can fail to detect ceftazidime resistance in *mecA* positive strains. Please refer to Johnson, K. N., K. Andreacchio and P. H. Edelstein. "Detection of Methicillin-Resistant Coagulase-Negative *Staphylococci* by the VITEK® 2 System." *J. Clin. Microbiol.* 52 (2014): 3196-3199 PubMed: 1500504 for additional information about detection of methicillin-resistant CoNS strains.
- 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. haemolyticus*, strain NRS62 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
- ¹⁰*S. haemolyticus*, strain NRS62 was deposited as being resistant to teicoplanin. Antibiotic susceptibility testing using bioMérieux Etest® antibiotic test strips and performed in duplicate determined that strain NRS62 has intermediate susceptibility to teicoplanin. For additional information, please refer to Walsh, T. R., et al. "Evaluation of Current Methods for Detection of *Staphylococci* with Reduced Susceptibility to Glycopeptides." *J. Clin. Microbiol.* 39 (2001): 2439-2444. PubMed: 11427551.
- ¹¹Also consistent with other *Staphylococcus* species
- ¹²Purity 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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