

Staphylococcus aureus, Strain MNHOCH

Catalog No. NR-45920

Product Description: *Staphylococcus aureus* (*S. aureus*), strain MNHOCH was isolated from a patient with non-menstrual toxic shock syndrome (TSS) in the United States. *S. aureus*, strain MNHOCH is a methicillin-sensitive *S. aureus* (MSSA) strain.

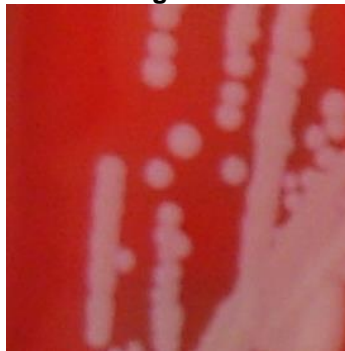
Lot¹: 62990911

Manufacturing Date: 08OCT2014

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 Report results Consistent with <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and cream (Figure 1) Non-motile β-hemolytic Positive Positive Consistent with <i>S. aureus</i>
Antibiotic Susceptibility Profile VITEK [®] (AST-GP71card) ⁴ Beta-lactamase ⁵ Cefoxitin screen Benzylpenicillin Oxacillin Gentamicin Ciprofloxacin Levofloxacin Moxifloxacin Clindamycin (inducible resistance) Erythromycin Quinupristin/dalfopristin Linezolid Daptomycin Vancomycin Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole Etest [®] antibiotic test strips ⁸ Chloramphenicol ⁹ Teicoplanin ⁹	Report results Report results Report results Sensitive Sensitive Sensitive Report results Report results Report results Report results Report results Report results Sensitive Sensitive Report results Report results Report results Report results Report results Report results Sensitive Report results Sensitive	Positive Negative Resistant (≥ 0.5 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.25 µg/mL) Positive ⁶ Inconclusive ⁷ Sensitive (≤ 0.25 µg/mL) Sensitive (= 2 µg/mL) Sensitive (= 0.5 µg/mL) Sensitive (= 1 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 10 µg/mL) Sensitive (= 2 µg/mL) Sensitive (= 1 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 770 base pairs)	Consistent with <i>S. aureus</i>	Consistent with <i>S. aureus</i>
Purity (post-freeze)¹⁰	Growth consistent with <i>S. aureus</i>	Growth consistent with <i>S. aureus</i>
Viability (post-freeze)²	Growth	Growth

- ¹*S. aureus*, strain MNHOCH was deposited to BEI Resources as part of the NARSA collection. NR-45920 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 25 hours at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles which were grown 18 hours at 37°C in an aerobic atmosphere to produce this lot.
- ²22 hours at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood
- ³4 hours 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 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. aureus*, strain MNHOCH was found to be sensitive to clindamycin but had a positive ICR test and therefore is considered resistant to clindamycin.
- ⁷*S. aureus*, strain MNHOCH was deposited as resistant to erythromycin. Antibiotic susceptibility testing performed in duplicate determined a MIC of 1 µg/mL for erythromycin. A positive ICR test indicated the presence of *emr*; therefore strain MNHOCH is presumed to be resistant to erythromycin. Confirmatory testing for erythromycin resistance is recommended.
- ⁸24 hours at 37°C in an aerobic atmosphere on Mueller Hinton agar
- ⁹For 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.
- ¹⁰Purity of this lot was assessed for 7 days on Tryptic Soy agar with 5% defibrinated sheep blood at 37°C in an aerobic atmosphere.

Figure 1



Date: 20 NOV 2014

Signature:

Title:

Technical Manager, BEI Authentication or designee

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