SUPPORTING INFECTIOUS DISEASE RESEARCH

Staphylococcus aureus, Strain GA-92

Catalog No. NR-46223

Product Description: *Staphylococcus aureus* (*S. aureus*), strain GA-92 was isolated in 2005 from a 55-year-old male with a bloodstream infection in Georgia, USA.

Lot¹: 62436154

Manufacturing Date: 12MAR2014

| TEST | SPECIFICATIONS | RESULTS |
|--|---------------------------|--------------------------------------|
| Phenotypic Analysis | | |
| Cellular morphology | Gram-positive cocci | Gram-positive cocci |
| Colony morphology ² | Report results | Circular, low convex, entire, smooth |
| | | and yellow (Figure 1) |
| Motility (wet mount) | Report results | Non-motile |
| Hemolysis ² | Report results | β-hemolytic |
| Biochemical characterization | | |
| Catalase | Positive | Positive |
| Coagulase ³ | Report results | Positive |
| VITEK [®] 2 Compact (GP card) | Consistent with S. aureus | Consistent with S. aureus |
| VITEK [®] MS (MALDI-TOF) | Consistent with S. aureus | Consistent with S. aureus |
| Antibiotic Susceptibility Profile | | |
| VITEK [®] (AST-GP71 card) ⁴ | | |
| Beta-lactamase ⁵ | Report results | Positive |
| Cefoxitin screen | Report results | Positive |
| Benzylpenicillin | Report results | Resistant (≥ 0.5 µg/mL) |
| Oxacillin | Resistant | Resistant (\geq 4 µg/mL) |
| Gentamicin | Sensitive | Sensitive ($\leq 0.5 \mu$ g/mL) |
| Ciprofloxacin | Report results | Sensitive (≤ 0.5 µg/mL) |
| Levofloxacin | Sensitive | Sensitive (≤ 0.12 µg/mL) |
| Moxifloxacin | Report results | Sensitive (≤ 0.25 µg/mL) |
| Clindamycin (inducible resistance) | Report results | Negative |
| Erythromycin | Resistant | Resistant (≥ 8 µg/mL) |
| Clindamycin | Sensitive | Sensitive (≤ 0.25 µg/mL) |
| Quinupristin/dalfopristin | Report results | Sensitive (≤ 0.25 µg/mL) |
| Linezolid | Sensitive | Sensitive (= $2 \mu g/mL$) |
| Daptomycin | Sensitive | Sensitive (= 0.5 µg/mL) |
| Vancomycin | Sensitive | Sensitive (= 1 µg/mL) |
| Minocycline | Report results | Sensitive (≤ 0.5 µg/mL) |
| Tetracycline | Sensitive | Sensitive (≤ 1 µg/mL) |
| Tigecycline | Report results | Sensitive (≤ 0.12 µg/mL) |
| Nitrofurantoin | Report results | Sensitive (≤ 16 µg/mL) |
| Rifampicin | Sensitive | Sensitive (≤ 0.5 µg/mL) |
| Trimethoprim/sulfamethoxazole | Sensitive | Sensitive (≤ 10 µg/mL) |
| Etest [®] antibiotic test strips ⁶ | | |
| Chloramphenicol ⁷ | Sensitive | Sensitive (= 3 µg/mL) |
| Teicoplanin ⁷ | Report results | Sensitive (= 0.75 µg/mL) |
| Genotypic Analysis | | |
| Sequencing of 16S ribosomal RNA gene | Consistent with S. aureus | Consistent with S. aureus |
| (~ 1490 base pairs) | Consistent with S. aureus | |
| Viability (post-freeze) ² | Growth | Growth |

¹S. aureus, strain GA-92 was deposited to BEI Resources as part of the NARSA collection. NR-46223 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 22 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 24 hours at 37°C in an aerobic atmosphere to produce this lot. Purity of this lot was assessed

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for 7 days under propagation conditions.

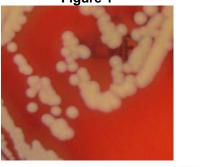
²24 hours at 37°C and aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood ³4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

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).

⁶24 hours at 37°C and aerobic atmosphere on Mueller Hinton agar

⁷For 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 \geq 32 µg/mL is resistant.





Date: 18 JUN 2014

Signature:

Title: Technical Manager, BEI Authentication or designee

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