

Certificate of Analysis for NR-46269

Staphylococcus aureus, Strain TN-82

Catalog No. NR-46269

Product Description: Staphylococcus aureus (S. aureus), strain TN-82 was isolated in 2005 from an internal abscess in a 70-year-old female in Tennessee, USA. S. aureus, strain TN-82 is a clinically associated methicillin-resistant S. aureus (MRSA) strain.

Lot¹: 62436022 Manufacturing Date: 20MAR2014

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology ²	Report results	Circular, low convex, entire, smooth
Colony morphology	Roport roodile	and gray (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis ²	Report results	β-hemolytic
Biochemical Analysis	repert results	p nomoly ac
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
	Consistent with C. dareas	Concident with C. dareas
Antibiotic Susceptibility Profile		
VITEK [®] (AST-GP71card) ⁴	Report results	Positive
Beta-lactamase ⁵	Report results	Positive
Cefoxitin screen	Report results	Resistant (≥ 0.5 µg/mL)
Benzylpenicillin	Resistant	Resistant (≥ 0.5 µg/mL) Resistant (≥ 4 µg/mL)
Oxacillin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Gentamicin	Report results	Resistant (≥ 8 µg/mL)
Ciprofloxacin	Resistant	Resistant (≥ 6 µg/mL) Resistant (≥ 8 µg/mL)
Levofloxin	Report results	Resistant (≥ 8 µg/mL)
Moxifloxacin	Report results	Negative
Clindamycin (inducible resistance)	Resistant	Resistant (≥ 8 µg/mL)
Erythromycin	Report results	Sensitive (≤ 0.25 µg/mL)
Quinupristin/dalfopristin	Sensitive	Sensitive (= 1 µg/mL)
Linezolid	Sensitive	Sensitive (= 1 µg/mL)
Daptomycin	Sensitive	Sensitive (= 1 μg/mL) Sensitive (≤ 0.5 μg/mL)
Vancomycin	Report results	Sensitive (≤ 0.5 µg/mL)
Minocycline	Sensitive	Sensitive (≤ 1 µg/mL)
Tetracycline	Report results	Sensitive (≤ 1 µg/mL)
Tigecycline	Report results	Sensitive (≤ 16 µg/mL)
Nitrofurantoin	Sensitive	Sensitive (≤ 1.5 µg/mL)
Rifampicin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Trimethoprim/sulfamethoxazole	Constitue	σοποιίνο (= 10 μg/πι_)
Etest® antibiotic test strips ⁶	Sensitive	Sensitive (= 6µg/mL)
Chloramphenicol ⁷	Report results	Sensitive (= 0µg/mL)
Teicoplanin ⁷	Sensitive	Resistant (> 256 µg/mL) ⁸
Clindamycin ⁷	3011011110	τοσισιατί (> 200 μg/πε)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	Consistent with S. aureus	Consistent with S. aureus
(~ 1490 base pairs)	Johnstont with O. dureus	Consistent with G. dureus
Viability (post-freeze) ²	Growth	Growth
	1	1

S. aureus, strain TN-82 was deposited to BEI Resources as part of the NARSA collection. NR-46269 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 23 hours at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5%

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defibrinated sheep blood kolles which were grown 26 hours at 37°C in an aerobic atmosphere to produce this lot. Purity of this lot was assessed for 7 days under propagation conditions.

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).

⁶24 hours at 37°C in an 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 ≥ 32 μg/mL is resistant. For clindamycin (bioMérieux Etest[®] 412314), a MIC ≤ 0.5 μg/mL is sensitive, a MIC between 1 and 2 μg/mL is intermediate and a MIC ≥ 4 μg/mL is resistant.

⁸S. aureus, strain TN-82 was deposited as being sensitive to clindamycin. ATCC[®] quality control determined that *S. aureus*, strain TN-82 is resistant to clindamycin. Repeat testing confirmed ATCC[®]'s initial results.

Figure 1



Date: 25 JUN 2014

Signature:

Title: Technical Manager, BEI Authentication or designee

ATCC[®], on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC[®]'s knowledge.

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