

Certificate of Analysis for NR-46543

Staphylococcus aureus subsp. aureus, Strain JE2

Catalog No. NR-46543

Product Description: *S. aureus* subsp. *aureus*, strain JE2 is a plasmid-cured derivative of strain LAC that was isolated in 2002 from a skin and soft tissue infection of an inmate in the Los Angeles County Jail in California, USA. It is the parental strain of the Nebraska Transposon Mutant Library from which the collection of transposon mutants was generated from. Strain JE2 is a methicillin-resistant *S. aureus* (MRSA) strain.

Lot¹: 63043217 Manufacturing Date: 29OCT2014

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology ²	Report results	Circular, low convex, entire, smooth,
		opaque and cream (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
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 (≥ 4 µg/mL)
Gentamicin	Report results	Sensitive (≤ 0.5 µg/mL)
Ciprofloxacin	Report results	Resistant (≥ 8 µg/mL)
Levofloxacin	Report results	Resistant (= 4 µg/mL)
Moxifloxacin	Report results	Intermediate (= 1 µg/mL)
Clindamycin (inducible resistance)	Report results	Negative
Erythromycin	Report results	Sensitive (≤ 0.25 μg/mL)
Clindamycin	Report results	Sensitive (≤ 0.25 μg/mL)
Quinupristin/dalfopristin	Report results	Sensitive (≤ 0.25 µg/mL)
Linezolid	Report results	Sensitive (= 2 µg/mL)
Daptomycin	Report results	Sensitive (= 1 µg/mL)
Vancomycin	Report results	Sensitive (≤ 0.5 μg/mL)
Minocycline	Report results	Sensitive (≤ 0.5 μg/mL)
Tetracycline	Report results	Sensitive (≤ 1 µg/mL)
Tigecycline	Report results	Sensitive (≤ 0.12 µg/mL)
Nitrofurantoin	Report results	Sensitive (≤ 16 μg/mL)
Rifampicin	Report results	Sensitive (≤ 0.5 μg/mL)
Trimethoprim/sulfamethoxazole	Report results	Sensitive (≤ 10 μg/mL)
Etest [®] antibiotic test strips ⁶		
Chloramphenicol ⁷	Report results	Sensitive (= 3 µg/mL)
Teicoplanin ⁷	Report results	Sensitive (= 1.5-2 μg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	Consistent with S. aureus	Consistent with S. aureus
(~ 1480 base pairs)		
Purity (post-freeze) ⁸	Growth consistent with S. aureus	Growth consistent with S. aureus
Viability (post-freeze) ²	Growth	Growth
	ı	

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SUPPORTING INFECTIOUS DISEASE RESEARCH

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¹S. aureus, strain JE2 was deposited to BEI Resources as part of the NARSA collection. NR-46543 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 24 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 23 hours at 37°C in an aerobic atmosphere to produce this lot.

²24 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)

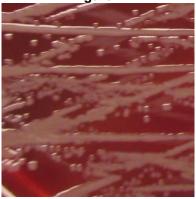
⁴Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

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

⁸Purity 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 JAN 2015

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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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.