

Staphylococcus aureus subsp. aureus, Strain JE2

Catalog No. NR-46543

Product Description:

Staphylococcus aureus (*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. NR-46543 lot 70069268 was produced by the inoculation of seed lot 63043216 into Tryptic Soy broth and incubated for 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 for 1 day at 37°C in an aerobic atmosphere. Quality control testing was completed under propagation conditions unless otherwise noted.

Lot: 70069268

Manufacturing Date: 20JUN2024

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology Motility (wet mount) Hemolysis Biochemical characterization Catalase 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar Coagulase VITEK® 2 MS (MALDI-TOF)	Gram-positive cocci Report results Non-motile β-hemolytic Positive Positive <i>S. aureus</i>	Gram-positive cocci Circular, low convex, entire, smooth and gray Non-motile β-hemolytic Positive Positive <i>S. aureus</i> (99.9%)
Antibiotic Susceptibility Profile¹ VITEK® (AST-GP78 card) Beta-lactamase Cefoxitin screen Benzylpenicillin Oxacillin Ceftaroline Gentamicin Ciprofloxacin Levofloxacin Moxifloxacin Clindamycin (inducible resistance) Erythromycin Clindamycin Linezolid Daptomycin Vancomycin Minocycline Tetracycline Tigecycline Nitrofurantoin	Positive Positive Resistant Resistant Sensitive Sensitive Resistant Resistant Intermediate Negative Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive	Positive Positive Resistant (≥ 0.5 µg/mL) Resistant (≥ 4 µg/mL) Sensitive (0.25 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (≥ 8 µg/mL) Resistant (4 µg/mL) Intermediate (1 µg/mL) Negative Sensitive (≤ 0.25 µg/mL) 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) ² Sensitive (≤ 16 µg/mL)

Certificate of Analysis for NR-46543

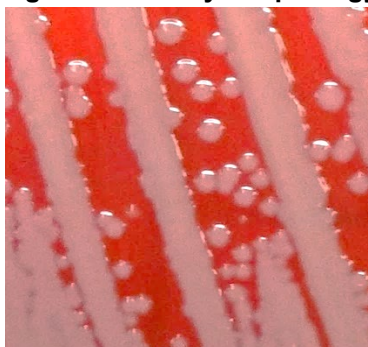
TEST	SPECIFICATIONS	RESULTS
Rifampicin Trimethoprim/sulfamethoxazole	Sensitive Sensitive	Sensitive ($\leq 0.5 \mu\text{g/mL}$) Sensitive ($\leq 10 \mu\text{g/mL}$)
Etest® antibiotic test strips Chloramphenicol Teicoplanin Quinupristin/dalfopristin	Sensitive Sensitive Sensitive	Sensitive ($3 \mu\text{g/mL}$) Sensitive ($0.5 \mu\text{g/mL}$) Sensitive ($0.25 \mu\text{g/mL}$)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	$\geq 99\%$ sequence identity to <i>S. aureus</i> , strain JE2 (GenBank: CP020619.1)	100% sequence identity to <i>S. aureus</i> , strain JE2 (GenBank: CP020619.1) ³
Purity (post-freeze) 7 days at 37°C in an aerobic atmosphere with 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)	Growth	Growth

¹Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: Clinical & Laboratory Standards Institute (CLSI) M100-S28 (2018)

²European Committee on Antimicrobial Susceptibility Testing (EUCAST) Version 13.0 (2023)

³Also consistent with other *Staphylococcus* species

Figure 1: Colony Morphology



/Sonia Bjorum Brower/

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10 OCT 2024

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