SUPPORTING INFECTIOUS DISEASE RESEARCH

## Staphylococcus aureus, Strain OR-327

## Catalog No. NR-46259

**Product Description**: *Staphylococcus aureus* (*S. aureus*), strain OR-327 is of unknown origin. *S. aureus*, strain OR-327 is a clinically-associated methicillin-resistant *S. aureus* (MRSA) strain.

## Lot<sup>1</sup>: 64044907

## Manufacturing Date: 02MAR2016

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology <sup>2</sup>	Report results	Circular, convex, entire, smooth and cream (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis <sup>3</sup>	Report results	β-hemolytic
Biochemical characterization		
Catalase	Positive	Positive
Coagulase <sup>4</sup>	Report results	Positive
VITEK <sup>®</sup> 2 Compact (GP card)	≥ 90% probability of being <i>S. aureus</i>	<i>S. aureus</i> (99% probability) <sup>5</sup>
Antibiotic Susceptibility Profile		
VITEK <sup>®</sup> (AST-GP71 card) <sup>6</sup>		
Beta-lactamase <sup>7</sup>	Report results	Positive
Cefoxitin screen	Report results	Positive
Benzylpenicillin	Report results	Resistant (≥ 0.5 µg/mL)
Oxacillin	Resistant	Resistant ( $\geq 4 \mu g/mL$ )
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 ( $\leq 0.25 \ \mu g/mL$ )
Clindamycin (inducible resistance)	Report results	Negative
Erythromycin	Resistant	Resistant (≥ 8 µg/mL)
Clindamycin	Sensitive	Sensitive (≤ 0.25 µg/mL)
Quinupristin/dalfopristin	Report results	Sensitive ( $\leq 0.25 \ \mu g/mL$ )
Linezolid	Sensitive	Sensitive (= $2 \mu g/mL$ )
Daptomycin	Sensitive	Sensitive (= $2 \mu g/mL$ )
Vancomycin	Sensitive	Sensitive (= $1 \mu g/mL$ )
Minocycline	Report results	Sensitive (= 1 $\mu$ g/mL) Sensitive (≤ 0.5 $\mu$ g/mL)
Tetracycline	Sensitive	Sensitive ( $\leq 0.5 \ \mu g/mL$ )
Tigecycline		Sensitive ( $\leq 1.12 \mu g/mL$ ) <sup>8</sup>
	Report results	
Nitrofurantoin	Report results	Sensitive (≤ 16 µg/mL)
Rifampicin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Trimethoprim/sulfamethoxazole	Sensitive	Sensitive (≤ 10 µg/mL)
Etest <sup>®</sup> antibiotic test strips <sup>9</sup>		
Chloramphenicol <sup>10</sup>	Sensitive	Sensitive (= 4 µg/mL)
Teicoplanin <sup>10</sup>	Report results	Sensitive (= 1 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	≥ 99% sequence identity to	100% sequence identity to
(~ 840 base pairs)	<i>S. aureus</i> type strain	<i>S. aureus</i> type strain
	(GenBank: L37597)	(GenBank: L37597)
Purity (post-freeze) <sup>11</sup>	Consistent with expected colony	Consistent with expected colony
	morphology	morphology
Viability (post-freeze) <sup>2</sup>	Growth	Growth

E-mail: <u>contact@beiresources.org</u> Tel: 800-359-7370 Fax: 703-365-2898 RESOURCES

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- <sup>1</sup>S. aureus, strain OR-327 was deposited to BEI Resources as part of the NARSA collection. NR-46259 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar kolles which were grown 1 day at 37°C in an aerobic atmosphere to produce this lot.
- <sup>2</sup>1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar
- <sup>3</sup>1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood
- <sup>4</sup>1 day at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)
- <sup>5</sup>Percent probabilities above 90% indicate a close match to the typical biochemical pattern for the given organism, with a percent probability of 99% being a perfect match between the test reaction pattern and the unique biochemical pattern of the given organism or organism group. For additional information, please refer to O'Hara, C.M. and J. M. Miller. "Evaluation of the VITEK 2 ID-GNB Assay for Identification of Members of the Family *Enterobacteriaceae* and Other Nonenteric Gram-Negative Bacilli and Comparison with the VITEK GNI+ Card." J. Clin. Microbiol. 41 (2003): 2096-2101. PubMed: 12734254.

<sup>6</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

- <sup>7</sup>The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).
- <sup>8</sup>MIC Interpretation Guideline: EUCAST Version 4.0 (2014)
- <sup>9</sup>1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar
- <sup>10</sup>For both chloramphenicol (bioMérieux Etest<sup>®</sup> 412308) and teicoplanin (bioMérieux Etest<sup>®</sup> 412459), a MIC ≤ 8 µg/mL is sensitive, a MIC = 16 µg/mL is intermediate and a MIC ≥ 32 µg/mL is resistant.
- <sup>11</sup>Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere on Tryptic Soy agar.

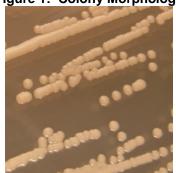


Figure 1: Colony Morphology

Date: 23 FEB 2017

Signature:

**BEI Resources Authentication** 

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