

**Staphylococcus aureus, Strain SA LinR #14**

**Catalog No. NR-45926**

**Product Description:** *Staphylococcus aureus* (*S. aureus*), strain SA LinR #14 was isolated in 2001 from an 85-year-old male with dialysis-associated peritonitis in Massachusetts, USA. *S. aureus*, strain SA LinR #14 is a methicillin-resistant *S. aureus* (MRSA) strain and was deposited as resistant to linezolid.

**Lot<sup>1</sup>: 63358427**

**Manufacturing Date: 21MAR2015**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology <sup>2,3</sup>  Motility (wet mount) Hemolysis <sup>2</sup> Biochemical characterization Catalase Coagulase <sup>4</sup> VITEK <sup>®</sup> 2 Compact (GP card)	Gram-positive cocci Report results  Report results Report results  Positive Report results Consistent with <i>S. aureus</i>	Gram-positive cocci Colony type 1: Circular, convex, entire, smooth and cream (Figure 1) Colony type 2: Pinpoint (Figure 1) Non-motile β-hemolytic  Positive Positive Consistent with <i>S. aureus</i>
<b>Antibiotic Susceptibility Profile</b> VITEK <sup>®</sup> (AST-GP71 card) <sup>5</sup> Beta-lactamase <sup>6</sup> Cefoxitin screen Benzylpenicillin Oxacillin Gentamicin Ciprofloxacin Levofloxacin Moxifloxacin Clindamycin (inducible resistance) Erythromycin Clindamycin Quinupristin/dalfopristin Linezolid Daptomycin Vancomycin Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole Etest <sup>®</sup> antibiotic test strips <sup>8</sup> Chloramphenicol <sup>9</sup> Teicoplanin <sup>9</sup>	Report results Report results Report results Resistant Sensitive Resistant Report results Report results Report results Report results Report results Intermediate Sensitive Resistant Report results Sensitive Report results Report results Report results Report results Report results Report results Report results Report results Sensitive  Report results Sensitive	Positive Positive Resistant (≥ 0.5 µg/mL) Resistant (≥ 4 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Resistant (= 4 µg/mL) Negative Sensitive (= 0.5 µg/mL) <sup>7</sup> Intermediate (= 1 µg/mL) Sensitive (≤ 0.25 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (= 1 µg/mL) Sensitive (= 1 µg/mL) Sensitive (= 4 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 10 µg/mL)  Intermediate (= 16 µg/mL) Sensitive (= 1.5 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1500 base pairs)	Consistent with <i>S. aureus</i>	Consistent with <i>S. aureus</i>

TEST	SPECIFICATIONS	RESULTS
Purity (post-freeze) <sup>10</sup>	Consistent with <i>S. aureus</i>	Consistent with <i>S. aureus</i>
Viability (post-freeze) <sup>2</sup>	Growth	Growth

<sup>1</sup>*S. aureus*, strain SA LinR #14 was deposited to BEI Resources as part of the NARSA collection. NR-45926 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 28 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 21 hours at 37°C in an aerobic atmosphere to produce this lot.

<sup>2</sup>22 hours at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

<sup>3</sup>Two colony types were observed. Plating of the individual colony types showed that they reverted to the mixed colony type. VITEK® MS (MALDI-TOF) analysis identified cells from both colony types as *S. aureus*.

<sup>4</sup>4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

<sup>5</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

<sup>6</sup>The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).

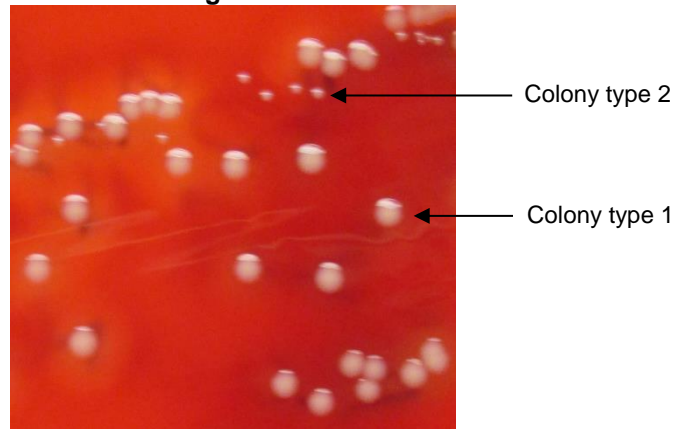
<sup>7</sup>*S. aureus*, strain SA Lin #14 was deposited as having an intermediate susceptibility to erythromycin. Antibiotic susceptibility testing performed in duplicate identified *S. aureus*, strain SA Lin #14 as sensitive to erythromycin.

<sup>8</sup>23 hours at 37°C in an aerobic atmosphere on Mueller Hinton agar

<sup>9</sup>For 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.

<sup>10</sup>Purity 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: 28 MAY 2015

Signature:   
BEI Resources Authentication

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