

**Staphylococcus aureus, Strain NY-245**

**Catalog No. NR-46240**

**Product Description:** *Staphylococcus aureus* (*S. aureus*), strain NY-245 was isolated in 2005 from bone of a 65-year-old male inpatient in New York, USA. *S. aureus*, strain NY-245 is a methicillin-resistant *S. aureus* (MRSA) strain and was deposited as susceptible to daptomycin, doxycycline, gentamicin, linezolid, rifampin, tetracycline, trimethoprim/sulfamethoxazole and vancomycin, intermediately susceptible to chloramphenicol and resistant to clindamycin, erythromycin, levofloxacin, oxacillin and penicillin.

**Lot<sup>1</sup>: 2111**

**Manufacturing Date: 03NOV2016**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology <sup>2</sup>  Motility (wet mount) Hemolysis <sup>3</sup> Biochemical characterization Catalase Coagulase <sup>5</sup> VITEK <sup>®</sup> 2 Compact (GP card)	Gram-positive cocci Report results  Report results Report results  Positive Report results <i>S. aureus</i> (≥ 89%)	Gram-positive cocci Circular, low convex, entire, smooth and cream (Figure 1) Non-motile β-hemolytic <sup>4</sup>  Positive Positive <i>S. aureus</i> (99%)
<b>Antibiotic Susceptibility Profile<sup>6</sup></b> VITEK <sup>®</sup> (AST-GP71 card) Beta-lactamase <sup>7</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>9</sup> Chloramphenicol Teicoplanin	Report results Report results Report results Resistant Sensitive Report results Resistant Report results Report results Resistant Resistant Resistant Report results Sensitive Sensitive Sensitive Report results Sensitive Report results Report results Sensitive Sensitive  Intermediate Report results	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 (≥ 8 µg/mL) Negative Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (2 µg/mL) Sensitive (0.25 µg/mL) Sensitive (1 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.12 µg/mL) <sup>8</sup> Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 10 µg/mL)  Intermediate (12 µg/mL) Sensitive (2 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 840 base pairs)	≥ 99% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597)	100% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597) <sup>10</sup>

TEST	SPECIFICATIONS	RESULTS
Purity (post-freeze) <sup>11</sup>	Consistent with expected colony morphology	Consistent with expected colony morphology
Viability (post-freeze) <sup>2</sup>	Growth	Growth

<sup>1</sup>*S. aureus*, strain NY-245 was deposited to BEI Resources as part of the NARSA collection. NR-46240 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>Limited β-hemolysis was observed after 2 days

<sup>5</sup>1 day at 37°C in rabbit plasma with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

<sup>6</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

<sup>7</sup>The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).

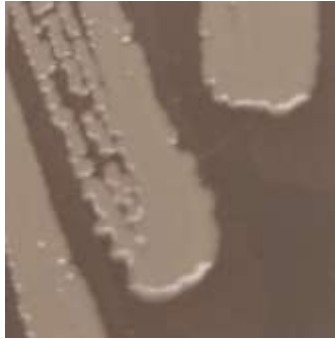
<sup>8</sup>MIC Interpretation Guideline: EUCAST Version 8.0 (2018)

<sup>9</sup>1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar

<sup>10</sup>Also consistent with other *Staphylococcus* species

<sup>11</sup>Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with 5% CO<sub>2</sub> on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



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