

***Staphylococcus aureus* subsp. *aureus*, Strain JE2, Transposon Mutant NE218 (SAUSA300\_0218)**

**Catalog No. NR-46761**

**Product Description:** *Staphylococcus aureus* (*S. aureus*) subsp. *aureus*, transposon mutant NE218 was derived from *S. aureus* subsp. *aureus*, strain JE2. Mutagenesis occurred through the use of the *mariner*-based transposon *bursa aurealis* resulting in an erythromycin resistant deletion strain of JE2. *S. aureus* subsp. *aureus*, transposon mutant NE218 was created by disruption of SAUSA300\_0218, which encodes for a sensor histidine kinase family protein. 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.

**Lot<sup>1</sup>: 63068859**

**Manufacturing Date: 12NOV2014**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphologies <sup>2,3</sup>  Motility (wet mount)	Gram-positive cocci Report results  Non-motile	Gram-positive cocci Colony type 1: Circular, convex, entire, smooth and cream (Figure 1) Colony type 2: Circular, convex, entire, smooth and yellow (Figure 1) Non-motile
<b>Confirmation of Transposon Insertion<sup>4</sup></b>	Resistant to erythromycin	Resistant to erythromycin
<b>Purity (post-freeze)<sup>5</sup></b>	Consistent with <i>S. aureus</i>	Consistent with <i>S. aureus</i>
<b>Viability (post-freeze)<sup>2</sup></b>	Growth	Growth

<sup>1</sup>NR-46761 was produced by inoculation of the deposited material into Tryptic Soy broth with 5 µg/mL erythromycin and incubated for 24 hours at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5 µg/mL erythromycin kolles which were grown 22 hours at 37°C in an aerobic atmosphere to produce this lot.

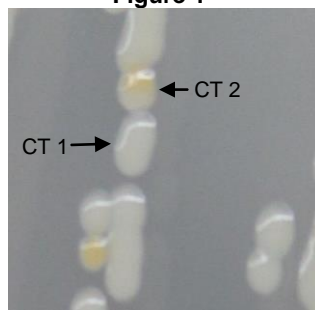
<sup>2</sup>23 hours at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

<sup>3</sup>Two colony types were observed. VITEK<sup>®</sup> MS (MALDI-TOF) analysis identified cells from both colony types as *S. aureus*. Since NR-46761 is a transposon mutant and is expected to produce a single colony type, colony purification of this item is highly recommended.

<sup>4</sup>Prior to initiating work, it is recommended that the presence and location of the transposon is confirmed. Gene specific primers should be paired with either the "Upstream" primer (5'-CTCGATTCTATTAACAAGGG-3') for transposons in the "plus" orientation or the "Buster" primer (5'-GCTTTTCTAAATGTTTTTAAGTAAATCAAGTAC-3') for transposons in the "minus" orientation. For additional information, refer to Fey, P. D., et al. "A Genetic Resource for Rapid and Comprehensive Phenotype Screening of Nonessential *Staphylococcus aureus* Genes." *MBio* 4 (2013): e00537-12. PubMed: 23404398.

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

**Figure 1**



## Certificate of Analysis for NR-46761

**Date:** 09 DEC 2014

**Signature:**



**Title:** Technical Manager, BEI Authentication or designee

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