

***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 HptS, a sensor histidine kinase family protein. HptS is a part of HptRS, a two-component regulatory system necessary for hexose phosphate transport, which is important for *S. aureus* survival within host cells. 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>: 70013197**

**Manufacturing Date: 23FEB2018**

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

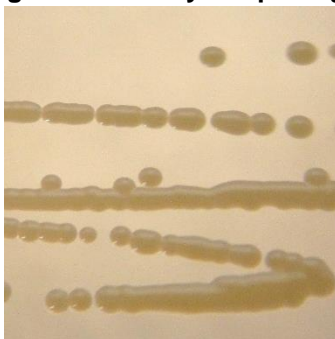
<sup>1</sup>NR-46761 lot 70013197 was produced by the inoculation BEI Resources NRS-46761 lot 63068858 into Tryptic Soy broth with 5 µg/mL erythromycin and incubated for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5 µg/mL erythromycin kolles which were grown 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 with 5 µg/mL erythromycin

<sup>3</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>4</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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Program Manager or designee, ATCC Federal Solutions

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