

# Genomic DNA from *Staphylococcus aureus*, Strain HIP15178

Catalog No. NR-51365

## Product Description:

Genomic DNA was extracted from a preparation of *Staphylococcus aureus* (*S. aureus*), strain HIP15178.

Lot: 70018062<sup>1</sup>

Manufacturing Date: 05FEB2019

TEST	SPECIFICATIONS	RESULTS
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1490 base pairs)	≥ 99% sequence identity to <i>S. aureus</i> , strain HIP15178 (GenBank: AHBO01000011.1)	100% sequence identity to <i>S. aureus</i> , strain HIP15178 (GenBank: AHBO01000011.1) <sup>2</sup>
<b>Agarose Gel Electrophoresis</b>	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
<b>Concentration by PicoGreen® Measurement</b>	0.7 to 1.5 µg in 25 to 100 µL per vial	1.2 µg in 45 µL per vial (26 µg/mL)
<b>Amount per vial</b>	0.7 to 1.5 µg	1.2 µg
<b>OD<sub>260</sub>/OD<sub>280</sub> Ratio</b>	1.7 to 2.1	1.9
<b>Functional Activity by PCR Amplification</b> 16S ribosomal RNA gene	~ 1500 base pair amplicon	~ 1500 base pair amplicon
<b>Presence of <i>vanA</i> Confirmed by PCR-RFLP<sup>3</sup></b> Digestion with <i>MspI</i> <sup>4</sup> <i>vanA</i> restriction fragment 1 <i>vanA</i> restriction fragment 2 <i>vanA</i> restriction fragment 3 <i>vanA</i> restriction fragment 4	~ 230 base pair amplicon ~ 180 base pair amplicon ~ 160 base pair amplicon ~ 130 base pair amplicon	~ 230 base pair amplicon ~ 180 base pair amplicon ~ 160 base pair amplicon ~ 130 base pair amplicon
<b>Bacterial Inactivation</b> 10% of total yield plated on agar <sup>5,6</sup>	No viable bacteria detected	No viable bacteria detected

<sup>1</sup>The bacterial preparation used for extraction of genomic DNA was produced by culture of BEI Resources NR-46415 lot 62436149. Genomic DNA was extracted using proprietary technology.

<sup>2</sup>Also consistent with other *Staphylococcus* species

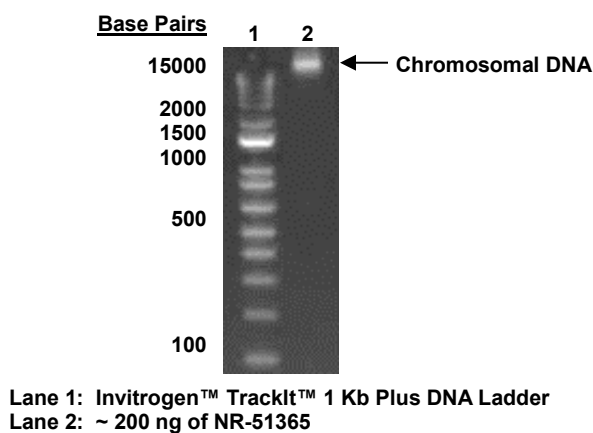
<sup>3</sup>Multiplex PCR restriction fragment length polymorphism (RFLP) is performed to identify vancomycin genes. For more information, please see Patel, R., et al. "Multiplex PCR Detection of *vanA*, *vanB*, *vanC-1*, and *vanC-2/3* Genes in Enterococci." *J. Clin. Microbiol.* 35 (1997): 703-707. PubMed: 9041416.

<sup>4</sup>0.1 µg of extracted DNA was digested with *MspI* for one hour at 37°C.

<sup>5</sup>14 days at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

<sup>6</sup>An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-positive and Gram-negative bacteria.

**Figure 1: Agarose Gel Electrophoresis**



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26 AUG 2019

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