

**Escherichia coli K-12, Strain IM01B**

**Catalog No. NR-49805**

**Product Description:** *Escherichia coli* (*E. coli*) K-12, strain IM01B contains the *hsdM* (methylase) and *hsdS* (specificity) genes from *Staphylococcus aureus* MW2 clonal complex 1 (CC1). This insertion mutant was produced in *E. coli* K-12, strain DC10B ( $\Delta dcm$ ). *E. coli* K-12, strain IM01B was deposited as resistant to streptomycin.

**Lot<sup>1</sup>: 63849801**

**Manufacturing Date: 19NOV2015**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology <sup>2</sup>  Motility (wet mount) VITEK <sup>®</sup> MS (MALDI-TOF)	Gram-negative rods Report results  Report results <i>E. coli</i>	Gram-negative rods Circular, low convex, entire translucent and smooth (Figure 1) Motile <i>E. coli</i> (99.9%)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)  Riboprinter <sup>®</sup> Microbial Characterization System	≥ 99% sequence identity to <i>E. coli</i> K-12 strain (GenBank: NZ_CP014225.1) ≥ 85% <i>E. coli</i>	99.7% sequence identity to <i>E. coli</i> K-12 strain (GenBank: NZ_CP014225.1) 94% <i>E. coli</i>
<b>Analysis of <i>hsdMS</i> by PCR Assay<sup>3</sup></b> <i>hsdM2</i> and <i>hsdS2</i> (CC1) <i>hsdS1</i> (CC1)	~ 3400 base pair amplicon ~ 1820 base pair amplicon	~ 3400 base pair amplicon ~ 1820 base pair amplicon
<b>Analysis of <i>hsdMS</i> by Sequence Analysis<sup>3</sup></b> <i>hsdM2</i> and <i>hsdS2</i> (~ 1580 base pairs) <i>hsdS1</i> (~ 1820 base pairs)	Consistent with depositor sequence Consistent with depositor sequence	Consistent with depositor sequence Consistent with depositor sequence
<b>Confirmation of Streptomycin Resistance<sup>2</sup></b>	Growth	Growth
<b>Purity (post-freeze)<sup>4</sup></b>	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
<b>Viability (post-freeze)<sup>2</sup></b>	Growth	Growth

<sup>1</sup>NR-49805 was produced by inoculation of the deposited material into Tryptic Soy broth with 25 µg/mL streptomycin and grown for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 25 µg/mL streptomycin kolles, which were grown for 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 25 µg/mL streptomycin

<sup>3</sup>PCR primers used for amplification were IM434 forward primer 5'-ACTTTCTTTAAGGCTTAGAGTCAAGC-3', IM435 reverse primer 5'-TTTAACGCCACGTTCACTCTTTGC-3', 179 forward primer 5'-CGGCCATTTATACAGGAAAAGCCTA-3' and 180 reverse primer 5'-GTTACCTTCTCTATAGAGAGTGGTG-3'. For additional information, refer to Monk, I., et al. "Complete Bypass of Restriction Systems for Major *Staphylococcus aureus* Lineages." *MBio*, 26 (2015): e00308-15. PubMed: 26015493.

<sup>4</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: Colony Morphology



/Heather Couch/  
Heather Couch

01 AUG 2018

Program Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

