

***Klebsiella pneumoniae*, Strain BIDMC 1**

**Catalog No. NR-41915**

**Product Description:** *Klebsiella pneumoniae* (*K. pneumoniae*), strain BIDMC 1 was isolated in 2010 from human toe bone tissue in Boston, Massachusetts, USA. *K. pneumoniae*, strain BIDMC 1 was deposited as a carbapenem-resistant strain and is part of a Carbapenem-Resistant Enterobacteriaceae (CRE) Sequencing Project at the Broad Institute. Strain BIDMC 1 was deposited as resistant to meropenem, ampicillin/sulbactam, cefepime, ceftazidime, ceftriaxone, ciprofloxacin, gentamicin, piperacillin/tazobactam and trimethoprim/sulfamethoxazole, intermediately susceptible to tobramycin and susceptible to amikacin.

**Lot<sup>1</sup>: 70007975**

**Manufacturing Date: 01SEP2017**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology <sup>2</sup>  Motility (wet mount) VITEK <sup>®</sup> 2 Compact (GN card)	Gram-negative rods Report results  Report results <i>K. pneumoniae</i> (≥ 89%)	Gram-negative rods Circular, convex, entire, smooth, mucoid and cream (Figure 1) Non-motile <i>K. pneumoniae</i> (93%) <sup>3</sup>
<b>Antibiotic Susceptibility Profile</b> VITEK <sup>®</sup> (AST-GN83) <sup>4</sup> Ampicillin Amoxicillin/clavulanic acid Ampicillin/sulbactam Piperacillin/tazobactam Cefazolin Cefuroxime Cefuroxime axetil Cefoxitin Cefotaxime Ceftazidime Ceftriaxone Cefepime Aztreonam Meropenem Amikacin Gentamicin Ciprofloxacin Nitrofurantoin Trimethoprim/sulfamethoxazole Etest <sup>®</sup> antibiotic test strips <sup>5</sup> Ceftriaxone <sup>6</sup> Tobramycin <sup>6</sup>	Report results Report results Resistant Resistant Report results Report results Report results Report results Report results Resistant Resistant Resistant Report results Resistant Sensitive Resistant Resistant Report results Resistant Resistant	Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 128 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (= 16 µg/mL) Resistant (= 8 µg/mL) Resistant (≥ 64 µg/mL) Resistant (= 16 µg/mL) Resistant (= 2 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 4 µg/mL) Resistant (= 128 µg/mL) Resistant (≥ 320 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 760 base pairs)	≥ 99% sequence identity to <i>K. pneumoniae</i> , strain BIDMC 1 (GenBank: JCNK01000004.1)	99.6% sequence identity to <i>K. pneumoniae</i> , strain BIDMC 1 (GenBank: JCNK01000004.1) <sup>7</sup>
<b>Purity (post-freeze)<sup>8</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-41915 was produced by inoculation of the deposited material into Tryptic Soy broth and grown for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar 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

<sup>3</sup>Percent probabilities above 89% indicate a close match to the typical biochemical pattern for the given organism, with a percent probability of 99% being a perfect match between the test reaction pattern and the unique biochemical pattern of the given organism or organism group. For additional information, please refer to O'Hara, C. M. and J. M. Miller. "Evaluation of the VITEK 2 ID-GNB Assay for Identification of Members of the Family Enterobacteriaceae and Other Nonenteric Gram-Negative Bacilli and Comparison with the VITEK GNI+ Card." *J. Clin. Microbiol.* 41 (2003): 2096-2101. PubMed: 12734254.

<sup>4</sup>Minimum Inhibitory Concentration (MIC); MIC interpretation was determined using VITEK<sup>®</sup> 2 software version 07.01 combined with the bioMérieux Advanced Expert System<sup>™</sup> (AES) software using the interpretation standard CLSI M100-S22 (2012) and the interpretation guideline "Natural Resistance." For more information, please refer to Sanders, C. C., et al. "Potential Impact of the VITEK 2 System and the Advanced Expert System on the Clinical Laboratory of a University-Based Hospital." *J. Clin. Microbiol.* 39 (2001): 2379-2385. PubMed: 11427542.

<sup>5</sup>1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar

<sup>6</sup>MIC Interpretation Guideline: CLSI M100-S22 (2012)

<sup>7</sup>Also consistent with other organisms

<sup>8</sup>Purity of this lot was assessed for 9 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**



**Date:** 05 JAN 2018

**Signature:**

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