

***Klebsiella pneumoniae*, Isolate 1**

**Catalog No. NR-15410**

**Product Description:** *Klebsiella pneumoniae* (*K. pneumoniae*), isolate 1 contains the  $\beta$ -lactamase carbapenemase (*bla*<sub>KPC</sub>) gene.

**Lot<sup>1</sup>: 58855067**

**Manufacturing Date: 22JAN2010**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology <sup>2</sup>  Analytical profile index (API <sup>®</sup> 20 E) Antibiotic resistance <sup>3</sup> Penicillin family <sup>4</sup> Penicillin family/ $\beta$ -lactamase inhibitor combinations <sup>5</sup> Cephalosporin family <sup>6</sup> Aminoglycoside family <sup>7</sup> Carbapenem family <sup>8</sup> Fluoroquinolone family <sup>9</sup> Tetracycline Tigecycline Trimethoprim/sulfamethoxazole combination Nitrofurantoin Monobactam (aztreonam) Extended spectrum $\beta$ -lactamase	Gram-negative rod Report results  Consistent with <i>K. pneumoniae</i>  Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results	Gram-negative rod Circular, convex, entire, opaque and cream (Figure 1) Consistent with <i>K. pneumoniae</i>  Resistant Resistant Resistant Sensitive Resistant Resistant Sensitive Sensitive Resistant Resistant Resistant Negative
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 690 bp)	Consistent with <i>K. pneumoniae</i>	Consistent with <i>K. pneumoniae</i>
<b>PCR Assay of Extracted DNA</b> Presence of $\beta$ -lactamase ( <i>bla</i> <sub>KPC</sub> ) gene <sup>10</sup>	~ 1000 bp amplicon	~ 1000 bp amplicon
<b>Viability (post-freeze)<sup>2</sup></b>	Growth	Growth

<sup>1</sup>NR-15410 was produced by inoculation of the deposited material into Tryptic Soy Broth and incubated for 48 hours at 37°C in an aerobic atmosphere. Broth was added to Kolles and incubated for 24 hours at 37°C in an aerobic atmosphere to produce this lot.

<sup>2</sup>24 hours at 37°C and aerobic atmosphere on Tryptic Soy Agar

<sup>3</sup>Vitek 2 Cards AST-EXN7 and AST-GN24

<sup>4</sup>Penicillin family members tested include: Ampicillin, Ticarcillin, and Piperacillin.

<sup>5</sup>Penicillin family/ $\beta$ -lactamase inhibitor combinations tested include: Ampicillin/Sulbactam, Amoxicillin/Clavulanic Acid, Ticarcillin/Clavulanic Acid, and Piperacillin/Tazobactam.

<sup>6</sup>Cephalosporin family members tested include: Cefotaxime, Ceftizoxime, Cefaxolin, Cefuroxime, Cefuroxime Axetil, Cefotetan, Ceftazidime, Ceftriaxone, Cefepime, Cefalotin, Cefoxitin, and Cefpodoxime.

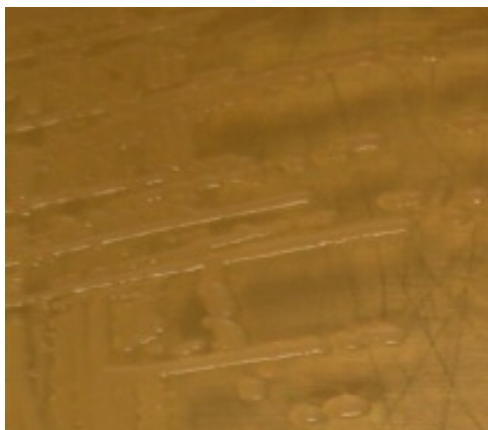
<sup>7</sup>Aminoglycoside family members tested include: Tobramycin, Amikacin, and Gentamicin.

<sup>8</sup>Carbapenem family members tested include: Imipenem, Meropenem, and Ertapenem.

<sup>9</sup>Fluoroquinolone family members tested include: Moxifloxacin, Naladixic Acid, Ciprofloxacin, Levofloxacin, and Norfloxacin.

<sup>10</sup>Yigit, H., et al. "Novel Carbapenem-Hydrolyzing  $\beta$ -Lactamase, KPC-1, from a Carbapenem-Resistant Strain of *Klebsiella pneumoniae*." *Antimicrob. Agents Chemother.* 45 (2001): 1151-1161. PubMed: 11257029.

Figure 1



**Date:** 08 NOV 2011

**Signature:** 

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

ATCC<sup>®</sup>, 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<sup>®</sup>'s knowledge.

ATCC<sup>®</sup> 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.

