Certificate of Analysis for NR-41926

Klebsiella pneumoniae, Strain BIDMC 10

Catalog No. NR-41926

Product Description: *Klebsiella pneumoniae (K. pneumoniae),* strain BIDMC 10 was isolated in 2009 from a human foot culture in Boston, Massachusetts, USA. *K. pneumoniae*, strain BIDMC 10 was deposited as a carbapenem-resistant strain and is part of a Carbapenem-Resistant Enterobacteriaceae (CRE) Sequencing Project at the Broad Institute. Strain BIDMC 10 was deposited as resistant to cefepime, ceftazidime, ceftriaxone and meropenem.

Lot[1]: 70007983 **Manufacturing Date: 11AUG2017**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology[2]	Report results	Circular, convex, entire, mucoid and cream (Figure 1)
Motility (wet mount)	Report results	Non-motile
VITEK® 2 Compact (GN card)	*K. pneumonia* (≥ 89%)	*K. pneumonia* (99%)[3]
Antibiotic Susceptibility Profile		
VITEK® (AST-GN83)[4]		
Ampicillin	Report results	Resistant (≥ 32 µg/mL)
Amoxicillin/clavulanic acid	Report results	Resistant (≥ 32 µg/mL)
Ampicillin/sulbactam	Report results	Resistant (≥ 32 µg/mL)
Piperacillin/tazobactam	Report results	Resistant (≥ 128 µg/mL)
Cefazolin	Report results	Resistant (≥ 64 µg/mL)
Cefuroxime	Report results	Resistant (≥ 64 µg/mL)
Cefuroxime axetil	Report results	Resistant (≥ 64 µg/mL)
Cefoxitin	Report results	Resistant (= 32 µg/mL)
Cefotaxime	Report results	Resistant (= 8 µg/mL)
Ceftazidime	Resistant	Resistant (≥ 64 µg/mL)
Ceftriaxone	Resistant	Resistant (= 16 µg/mL)
Cefepime	Resistant	Resistant (≥ 2 µg/mL)
Aztreonam	Report results	Resistant (≥ 64 µg/mL)
Meropenem	Resistant	Resistant (≥ 16 µg/mL)
Amikacin	Report results	Resistant (≥ 64 µg/mL)
Gentamicin	Report results	Resistant (≥ 16 µg/mL)
Ciprofloxacin	Report results	Resistant (≥ 4 µg/mL)
Nitrofurantoin	Report results	Resistant (= 256 µg/mL)
Trimethoprim/sulfamethoxazole	Report results	Resistant (≥ 320 µg/mL)
Etest® antibiotic test strips[5]		
Ceftriaxone[6]	Resistant	Resistant (= 24 µg/mL)
Tobramycin[6]	Report results	Resistant (≥ 256 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 750 base pairs)	≥ 99% sequence identity to *K. pneumonia,* strain BIDMC 10 (GenBank: JNVG01000005.1)	99.3% sequence identity to *K. pneumonia,* strain BIDMC 10 (GenBank: JNVG01000005.1)[7]
Purity (post-freeze)[8]	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)[2]	Growth	Growth

[1]NR-41926 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.
[2]1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar
[3]Percent probabilities above 90% 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

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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.

[4]Minimum Inhibitory Concentration (MIC); MIC interpretation was determined using VITEK® 2 software version 07.01 combined with the bioMérieux Advanced Expert System™ (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.

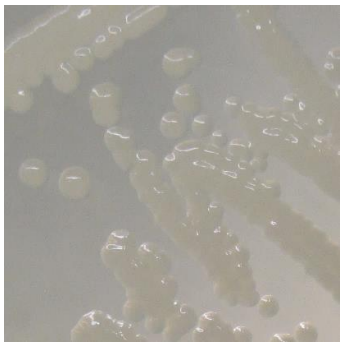
[5]1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar

[6]MIC Interpretation Guideline: CLSI M100-S22 (2012)

[7]Also consistent with other organisms

[8]Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with 5% CO_2 on Tryptic Soy agar.

Figure 1: Colony Morphology



Date: 05 JAN 2018 **Signature:**

BEI Resources Authentication

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