

Certificate of Analysis for NR-15417

Klebsiella pneumoniae, Isolate 8

Catalog No. NR-15417

Product Description: *Klebsiella pneumoniae (K. pneumoniae)*, isolate 8 contains the β-lactamase carbapenemase (bla_{KPC}) gene.

Lot¹: 58855081 Manufacturing Date: 23OCT2009

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rod	Gram-negative rod
Colony morphology ²	Report results	Circular, convex, entire, translucent and cream (Figure 1)
Analytical profile index (API® 20 E)	Consistent with K. pneumoniae	Consistent with K. pneumoniae
Antibiotic resistance ³	·	
Penicillin family ⁴	Report results	Resistant
Penicillin family/β-lactamase inhibitor combinations ⁵	Report results	Resistant
Cephalosporin family ⁶	Report results	Resistant
Aminoglycoside family		
Tobramycin	Report results	Resistant
Amikacin	Report results	Sensitive
Gentamicin	Report results	Resistant
Carbapenem family ⁷	Report results	Resistant
Fluoroquinolone family ⁸	Report results	Resistant
Tetracycline	Report results	Sensitive
Tigecycline	Report results	Sensitive
Trimethoprim/sulfamethoxazole combination	Report results	Resistant
Nitrofurantoin	Report results	Resistant
Monobactam (aztreonam)	Report results	Resistant
Extended spectrum β-lactamase	Report results	Negative
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1410 bp)	Consistent with K. pneumoniae	Consistent with K. pneumoniae
RiboPrinter Microbial Characterization System	Consistent with K. pneumoniae	Consistent with K. pneumoniae
PCR Assay of Extracted DNA		
Presence of β-lactamase (<i>bla</i> _{KPC}) gene ⁹	~ 1000 bp amplicon	~ 1000 bp amplicon
Viability (post-freeze) ²	Growth	Growth

¹NR-15417 was produced by inoculation of the deposited material into Tryptic Soy Broth and incubated for 24 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.

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²24 hours at 37°C and aerobic atmosphere on Tryptic Soy Agar

³Vitek 2 Cards AST-EXN7 and AST-GN24

⁴Penicillin family members tested include: Ampicillin, Ticarcillin, and Piperacillin

⁵Penicillin family/β-lactamase inhibitor combinations tested include: Ampicillin/Sulbactam, Amoxicillin/Clavulanic Acid, Ticarcillin/Clavulanic Acid, and Piperacillin/Tazobactam.

⁶Cephalosporin family members include: Cefotaxime, Ceftizoxime, Cefazolin, Cefuroxime, Cefuroxime Axetil, Cefotetan, Ceftazidime, Ceftriaxone, Cefepime, Cefalotin, Cefoxitin and Cefpodoxime

⁷Carbapenem family members include: Imipenem, Meropenem and Ertapenem

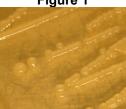
⁸Fluoroquinolone family members tested include: Moxifloxacin, Naladixic Acid, Ciprofloxacin, Levofloxacin, and Norfloxacin

⁹Yigit, H. et al. "Novel Carbapenem-Hydrolyzing β-Lactamase, KPC-1, from a Carbapenem-Resistant Strain of *Klebsiella pneumoniae*." <u>Antimicrob. Agents Chemother.</u> 45 (2001): 1151-1161. PubMed: 11257029.



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Date: 11 FEB 2011

Signature:

Title:

Technical Manager, BEI Authentication or designee

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