

Klebsiella pneumoniae, Isolate 7

Catalog No. NR-15416

Product Description: *Klebsiella pneumoniae* (*K. pneumoniae*), isolate 7 contains the β -lactamase carbapenemase (*bla*_{KPC}) gene.

Lot¹: 58855080

Manufacturing Date: 22OCT2009

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 <i>K. pneumoniae</i>	Consistent with <i>K. pneumoniae</i>
Antibiotic resistance ³		
Penicillin family ⁴	Report results	Resistant
Penicillin family/ β -lactamase inhibitor combinations ⁵	Report results	Resistant
Cephalosporin family		
Cefotaxime	Report results	Resistant
Ceftizoxime	Report results	Resistant
Cefazolin	Report results	Resistant
Cefuroxime	Report results	Resistant
Cefuroxime Axetil	Report results	Resistant
Cefotetan	Report results	Resistant
Ceftazidime	Report results	Resistant
Ceftriaxone	Report results	Resistant
Cefepime	Report results	Resistant
Cefalotin	Report results	Resistant
Cefoxitin	Report results	Sensitive
Cefpodoxime	Report results	Resistant
Aminoglycoside family		
Tobramycin	Report results	Resistant
Amikacin	Report results	Resistant
Gentamicin	Report results	Intermediate
Carbapenem family		
Imipenem	Report results	Sensitive
Meropenem	Report results	Resistant
Ertapenem	Report results	Resistant
Fluoroquinolone family ⁶		
Tetracycline	Report results	Sensitive
Tigecycline	Report results	Sensitive
Trimethoprim/sulfamethoxazole combination	Report results	Sensitive
Nitrofurantoin	Report results	Sensitive
Monobactam (aztreonam)	Report results	Resistant
Extended spectrum β -lactamase	Report results	Positive
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1310 bp)	Consistent with <i>K. pneumoniae</i>	Consistent with <i>K. pneumoniae</i>
RiboPrinter Microbial Characterization System	Consistent with <i>K. pneumoniae</i>	Consistent with <i>K. pneumoniae</i>
PCR Assay of Extracted DNA		
Presence of β -lactamase (<i>bla</i> _{KPC}) gene ⁷	~ 1000 bp amplicon	~ 1000 bp amplicon
Viability (post-freeze)²	Growth	Growth

¹NR-15416 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.

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.

⁶Fluoroquinolone family members tested include: Moxifloxacin, Naladixic Acid, Ciprofloxacin, Levofloxacin, and Norfloxacin.

⁷Yigit, H. et al. "Novel Carbapenem-Hydrolyzing β -Lactamase, KPC-1, from a Carbapenem-Resistant Strain of *Klebsiella pneumoniae*." Antimicrob. Agents Chemother. 45 (2001): 1151-1161. PubMed: 11257029.

Figure 1



Date: 11 FEB 2011

Signature: 

Title: Technical Manager, BEI Authentication or designee

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