

***Klebsiella pneumoniae*, Strain JHCK1**

Catalog No. NR-48976

Product Description: *Klebsiella pneumoniae* (*K. pneumoniae*), strain JHCK1 was isolated in late 1981 or early 1982 from a newborn with meningitis in Buenos Aires, Argentina.

Lot¹: 63431901

Manufacturing Date: 09APR2015

TEST	SPECIFICATIONS	RESULTS – Colony Type 1	RESULTS – Colony Type 2
Phenotypic Analysis Cellular morphology Colony morphology ^{2,3} Motility (wet mount) VITEK [®] MS (MALDI-TOF)	Gram-negative rods Report results Report results Consistent with <i>K. pneumoniae</i>	Gram-negative rods Circular, convex, entire, smooth and white (Figure 1) Non-motile Consistent with <i>K. pneumoniae</i>	Gram-negative rods Circular, low convex, undulate, smooth and gray (Figure 1) Non-motile Consistent with <i>K. pneumoniae</i>
Antibiotic Susceptibility Profile⁴ VITEK [®] (AST-GN69) ⁵ ESBL ⁶ Ampicillin Amoxicillin/Clavulanic Acid Ampicillin/Sulbactam Piperacillin/Tazobactam Cefazolin Ceftazidime Ceftriaxone Cefepime Ertapenem Imipenem Gentamicin Tobramycin Ciprofloxacin Levofloxacin Nitrofurantoin Trimethoprim/Sulfamethoxazole VITEK [®] (AST-XN06) ⁵ Ticarcillin Piperacillin Cefalotin Cefuroxime Cefuroxime Axetil Cefotetan Cefoxitin Cefpodoxime Cefotaxime Ceftizoxime Aztreonam Doripenem Meropenem Amikacin Nalidixic Acid Moxifloxacin Norfloxacin	Report results Resistant Report results Report results Report results Resistant Sensitive Sensitive Sensitive Report results Sensitive Resistant Report results Sensitive Sensitive Report results Report results Report results Report results Sensitive Sensitive Report results Report results Report results Sensitive Sensitive Report results Report results Report results Sensitive Resistant Sensitive Report results Report results	Negative Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) ⁷ Resistant (≥ 32 µg/mL) Resistant (≥ 128 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 0.25 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.12 µg/mL) Intermediate (= 64 µg/mL) Resistant (≥ 320 µg/mL) ⁸ Resistant (≥ 128 µg/mL) Resistant (≥ 128 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (= 4 µg/mL) Sensitive (= 4 µg/mL) Sensitive (≤ 4 µg/mL) Sensitive (≤ 4 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 0.25 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (= 4 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.5 µg/mL)	

TEST	SPECIFICATIONS	RESULTS – Colony Type 1	RESULTS – Colony Type 2
Antibiotic Susceptibility Profile (continued)⁴ Tetracycline Tigecycline Etest [®] antibiotic test strips ⁹ Chloramphenicol ¹⁰	Resistant Report results Resistant	Resistant ($\geq 16 \mu\text{g/mL}$) Sensitive ($\leq 0.5 \mu\text{g/mL}$) Resistant ($> 256 \mu\text{g/mL}$)	
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 860 base pairs)	Consistent with <i>K. pneumoniae</i>	Consistent with <i>K. pneumoniae</i> ¹¹	Consistent with <i>K. pneumoniae</i> ¹¹
Purity (post-freeze)¹²	Consistent with <i>K. pneumoniae</i>	Consistent with <i>K. pneumoniae</i>	
Viability (post-freeze)²	Growth	Growth	

¹*K. pneumoniae*, strain JHCK1 was deposited by Marcelo Tolmasky, Ph.D., Professor, Center for Applied Biotechnology Studies, California State University Fullerton, Fullerton, California, USA. NR-48976 was produced from a subculture of the deposited material. The subculture material was used to inoculate Tryptic soy broth and incubated for 24 hours at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic soy agar with 5% defibrinated sheep blood kolles which were grown 23 hours at 37°C in an aerobic atmosphere to produce this lot.

²21 hours at 37°C in an aerobic atmosphere on Tryptic soy agar with 5% defibrinated sheep blood

³Two colony types were observed. Plating of the individual colony types showed that they did not revert to the mixed colony type. Cells from each colony type were subjected to VITEK[®] MS (MALDI-TOF) analysis and found to be consistent with *K. pneumoniae*.

⁴Antibiotic susceptibility testing was performed using a mixed colony suspension.

⁵Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

⁶The VITEK[®]2 ESBL test is a confirmatory test for Extended-Spectrum Beta-Lactamases (ESBLs) inhibited by clavulanic acid and utilizes cefepime, cefotaxime and ceftazidime, with and without clavulanic acid, to determine a positive or negative result.

⁷*K. pneumoniae*, strain JHCK1 was deposited as having an intermediate susceptibility to Amoxicillin/Clavulanic Acid. Antibiotic susceptibility testing performed in duplicate determined that *K. pneumoniae*, strain JHCK1 is resistant to Amoxicillin/Clavulanic Acid.

⁸*K. pneumoniae*, strain JHCK1 was deposited as being susceptible to Trimethoprim/Sulfamethoxazole. Antibiotic susceptibility testing performed in duplicate determined that *K. pneumoniae*, strain JHCK1 is resistant to Trimethoprim/Sulfamethoxazole.

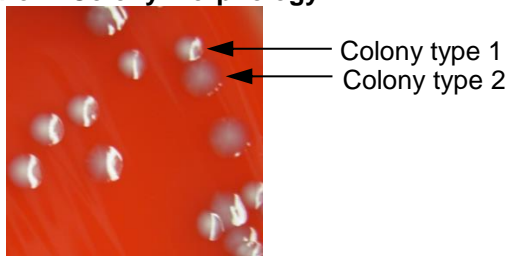
⁹24 hours at 37°C in an aerobic atmosphere on Mueller Hinton agar

¹⁰For Chloramphenicol (bioMérieux Etest[®] 412308), a MIC $\leq 8 \mu\text{g/mL}$ is sensitive, a MIC = $16 \mu\text{g/mL}$ is intermediate and a MIC $\geq 32 \mu\text{g/mL}$ is resistant.

¹¹Cells from colony type 1 and colony type 2 are 100% identical to each other and 99.7% identical to GenBank: ANGH00000000 (*K. pneumoniae*, strain JHCK1).

¹²Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere on Tryptic soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



Date: 27 JUL 2015

Signature:

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