

***Klebsiella pneumoniae*, Strain 1.53**

Catalog No. NR-48978

Product Description: *Klebsiella pneumoniae* (*K. pneumoniae*), strain 1.53 was isolated in 2009 in India, from an intra-abdominal infection of a human patient.

Lot¹: 63431906

Manufacturing Date: 10APR2015

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² 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 gray (Figure 1) Non-motile Consistent with <i>K. pneumoniae</i>
Antibiotic Susceptibility Profile VITEK [®] (AST-GN69) ³ ESBL ⁴ Ampicillin Amoxicillin/Clavulanic Acid Ampicillin/Sulbactam Piperacillin/Tazobactam Cefazolin Ceftazidime Ceftriaxone Cefepime Ertapenem Imipenem Gentamicin Tobramycin Ciprofloxacin Levofloxacin Nitrofurantoin Trimethoprim/Sulfamethoxazole VITEK [®] (AST-XN06) ³ Ticarcillin Piperacillin Cefalotin Cefuroxime Cefuroxime Axetil Cefotetan Cefoxitin Cefpodoxime Cefotaxime Ceftizoxime Aztreonam Doripenem Meropenem Amikacin Nalidixic Acid Moxifloxacin Norfloxacin Tetracycline Tigecycline	Report results Resistant Resistant Report results Report results Resistant Resistant Resistant Resistant Resistant Report results Report results Resistant Resistant Resistant Report results Resistant Report results Resistant Report results Report results Resistant Report results Report results Resistant Report results Report results Resistant Report results Report results Resistant Report results Report results Resistant Report results Report results Resistant Report results	Positive Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 128 µg/mL) Resistant (≥ 64 µg/mL) Resistant (= 16 µg/mL) Resistant (≥ 64 µg/mL) Resistant (= 32 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 0.25 µg/mL) ⁵ Resistant (≥ 16 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 4 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 512 µg/mL) Resistant (≥ 320 µg/mL) Resistant (≥ 128 µg/mL) Resistant (≥ 128 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 8 µg/mL)

Certificate of Analysis for NR-48978

TEST	SPECIFICATIONS	RESULTS
Etest [®] antibiotic test strips ⁶ Chloramphenicol ⁷	Resistant	Resistant (> 256 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (1490 base pairs)	Consistent with <i>K. pneumoniae</i>	Consistent with <i>K. pneumoniae</i> ⁸
Purity (post-freeze) ⁹	Consistent with <i>K. pneumoniae</i>	Consistent with <i>K. pneumoniae</i>
Viability (post-freeze) ²	Growth	Growth

¹*K. pneumoniae*, strain 1.53 was deposited by Marcelo Tolmasky, Ph.D., Professor, Center for Applied Biotechnology Studies, California State University Fullerton, Fullerton, California, USA. NR-48978 was produced from a frozen subculture of the deposited material. The subculture was cultivated in Tryptic soy broth for 23 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.

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

³Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

⁴The 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.

⁵*K. pneumoniae*, strain 1.53 was deposited as being resistant to imipenem. Antibiotic susceptibility testing performed in duplicate determined that strain 1.53 is susceptible to imipenem.

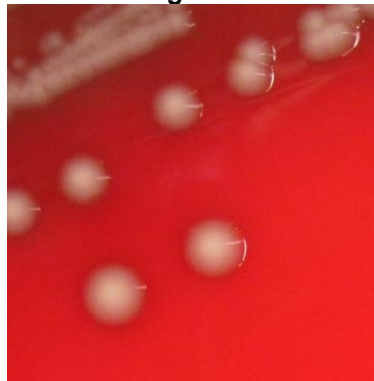
⁶24 hours at 37°C in an aerobic atmosphere on Mueller Hinton agar

⁷For chloramphenicol (bioMérieux Etest[®] 412308), a MIC ≤ 8 µg/mL is sensitive, a MIC = 16 µg/mL is intermediate and a MIC ≥ 32 µg/mL is resistant.

⁸Also consistent with other *Klebsiella* species

⁹Purity 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



Date: 15 JUL 2015

Signature:

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