

***Klebsiella pneumoniae*, Strain CHS 63**

Catalog No. NR-48565

Product Description: *Klebsiella pneumoniae* (*K. pneumoniae*), strain CHS 63 was isolated in 2013 from the urine of a non-ICU adult human patient in North Carolina, USA. *K. pneumoniae*, strain CHS 63 was deposited as a carbapenem resistant strain and is part of a Carbapenem Resistant Enterobacteriaceae (CRE) Sequencing Project at the Broad Institute. Strain CHS 63 was also deposited as resistant to meropenem and ceftazidime and susceptible to tigecycline and amikacin.

Lot¹: 63445883

Manufacturing Date: 01MAY2015

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphologies ² Motility (wet mount) VITEK [®] MS (MALDI-TOF)	Gram-negative rods Report results Report results Consistent with <i>K. pneumoniae</i>	Gram-negative rods Colony Type 1: Circular, convex, entire, smooth and light gray (Figure 1) Colony Type 2: Circular, slight peaked, entire, smooth and gray (Figure 1) Non-motile Consistent with <i>K. pneumoniae</i>
Antibiotic Susceptibility Profile VITEK [®] (AST-GN69) ³ ESBL ^{4,5} Ampicillin Amoxicillin/Clavulanic Acid Ampicillin/Sulbactam Piperacillin/Tazobactam Cefazolin Ceftazidime Ceftriaxone Cefepime Ertapenem Imipenem Gentamicin Tobramycin Ciprofloxacin Levofloxacin Nitrofurantoin Trimethoprim/Sulfamethoxazole	Report results Resistant Report results Resistant Report results Resistant Resistant Resistant Report results Resistant Resistant Intermediate Report results Resistant Resistant Resistant Resistant	Negative Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 128 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Intermediate (= 16 µg/mL) ⁶ Resistant (≥ 8 µg/mL) Resistant (= 8 µg/mL) Intermediate (= 8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 4 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 512 µg/mL) Resistant (≥ 320 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	Consistent with <i>K. pneumoniae</i>	Consistent with <i>K. pneumoniae</i> ⁷
Purity (post-freeze)⁸	Consistent with <i>K. pneumoniae</i>	Consistent with <i>K. pneumoniae</i>
Viability (post-freeze)²	Growth	Growth

¹NR-48565 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 with 5% defibrinated sheep blood kolles, which were grown for 1 day under propagation conditions to produce this lot.

²1 day on Tryptic Soy agar with 5% defibrinated sheep blood under propagation conditions

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.

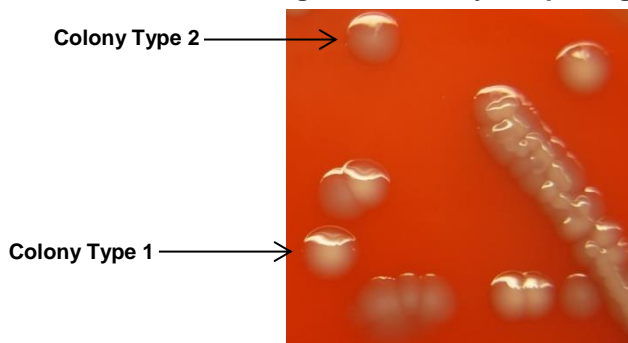
⁵A negative ESBL test does not rule out the presence of an ESBL as there are many types of ESBL that may not be covered with this card. Furthermore, the ESBL phenotype may be masked by an AmpC β -lactamase. For more information, refer to Gniadkowski, M. "Evolution and Epidemiology of Extended-Spectrum β -Lactamases (ESBLs) and ESBL-Producing Microorganisms." *Clin. Microbiol. Infect.* 7 (2001): 597-608. PubMed: 11737084.

⁶*K. pneumoniae*, strain CHS 63 was deposited as resistant to cefepime. Antibiotic susceptibility testing performed in duplicate determined the cefepime MIC for *K. pneumoniae*, strain CHS 63 as 16 μ g/mL, which is considered intermediate. Because this isolate is not a confirmed ESBL-producer, CLSI recommendations are not to modify the interpretation based on the susceptibilities of other antibiotics in the same class. However, while this strain appears intermediate *in vitro*, there is a possibility that it is resistant *in vivo*.

⁷Also consistent with other *Klebsiella* species

⁸Purity of this lot was assessed for 7 days on Tryptic Soy agar with 5% defibrinated sheep blood under propagation conditions.

Figure 1: Colony Morphology



Date: 21 OCT 2015

Signature:

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