

## Certificate of Analysis for NR-50399

## Enterobacter cloacae complex, Strain BEI09

## Catalog No. NR-50399

**Product Description:** Enterobacter cloacae complex (E. cloacae complex), strain BEI09 is from an unknown origin.

Lot<sup>1</sup>: 64391839 Manufacturing Date: 24FEB2016

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology <sup>2</sup>	Report results	Circular, low convex, entire, smooth,
, , , , , , , , , , , , , , , , , , , ,	·	and white (Figure 1)
Motility (wet mount)	Report results	Motile
Beta-lactamase <sup>3</sup>	Report results	Positive
VITEK® 2 Compact (GN card)	≥ 90% probability of being	E. cloacae complex
,	E. cloacae complex	(95% probability) <sup>4</sup>
Antibiotic Susceptibility Profile		
VITEK® (AST-GN84 Card)5,6		
Amoxicillin/Clavulanic Ácid	Report results	Resistant (≥ 32 µg/mL)
Piperacillin/Tazobactam	Report results	Sensitive (≤ 4 µg/mL)
Cefazolin	Report results	Resistant (≥ 64 µg/mL)
Ceftriaxone	Report results	Sensitive (≤ 1 μg/mL)
Cefepime	Report results	Sensitive (≤ 1 µg/mL)
Aztreonam	Report results	Sensitive (≤ 1 µg/mL)
Ertapenem	Report results	Sensitive (≤ 0.5 µg/mL)
Imipenem	Report results	Sensitive (≤ 0.25 µg/mL)
Meropenem	Report results	Sensitive (≤ 0.25 μg/mL)
Gentamicin	Report results	Sensitive (≤ 1 μg/mL)
Ciprofloxacin	Report results	Resistant (≥ 4 µg/mL)
Levofloxacin	Report results	Resistant (≥ 8 µg/mL)
Tetracycline	Report results	Sensitive (≤ 1 μg/mL)
Nitrofurantoin	Report results	Sensitive (≤ 16 µg/mL)
Trimethoprim/Sulfamethoxazole	Report results	Resistant (≥ 320 µg/mL)
Etest® antibiotic test strips <sup>7</sup>		
Ampicillin <sup>8</sup>	Report Results	Intermediate (= 12 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	≥ 99% sequence identity to	99.5% sequence identity to
(~ 880 base pairs)	E. cloacae complex type strain	E. cloacae complex type strain
	(Genbank: NR_118568.1)	(Genbank: NR_118568.1) <sup>9</sup>
Purity (post-freeze) <sup>10</sup>	Consistent with expected colony	Consistent with expected colony
	morphology	morphology
Viability (post-freeze) <sup>2</sup>	Growth	Growth

<sup>&</sup>lt;sup>1</sup>NR-50399 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 kolles, which were grown for 1 day at 37°C in an aerobic atmosphere to produce this lot.

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<sup>&</sup>lt;sup>2</sup>1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar

³The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).

<sup>&</sup>lt;sup>4</sup>Percent probabilities above 90% indicate a close match to the typical biochemical pattern for the given organism, with a percent probability of 99% being a perfect match between the test reaction pattern and the unique biochemical pattern of the given organism or organism group. For additional information, please refer to O'Hara, C.M. and J. M. Miller. "Evaluation of the VITEK 2 ID-GNB Assay for Identification of Members of the Family Enterobacteriaceae and Other Nonenteric Gram-Negative Bacilli and Comparison with the VITEK GNI+ Card." J. Clin. Microbiol. 41 (2003): 2096-2101. PubMed: 12734254.

<sup>&</sup>lt;sup>5</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

<sup>&</sup>lt;sup>6</sup>No results were obtained for ampicillin, ampicillin/sulbactam and Extended-Spectrum Beta-Lactamases (ESBLs) from the VITEK® (AST-GN84 Card) analysis. Alternative methods of testing are recommended by the manufacturer.

<sup>&</sup>lt;sup>7</sup>1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar



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<sup>8</sup>For ampicillin (bioMérieux Etest<sup>®</sup> 412252) a MIC ≤ 8 μg/mL is sensitive, a MIC = 16 μg/mL is intermediate and a MIC ≥ 32 μg/mL is resistant. <sup>9</sup>Also consistent with other *Enterobacter* species

<sup>10</sup>Purity 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: 10 AUG 2016

Signature:

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