

## **Certificate of Analysis for NR-50403**

## Enterobacter cloacae complex, Strain BEI13

## Catalog No. NR-50403

**Product Description:** Enterobacter cloacae complex (E. cloacae complex), strain BEI13 is from an unknown origin.

Lot<sup>1</sup>: 64391847 Manufacturing Date: 10MAR2016

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 cream (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	(94% 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	Resistant (≥ 128 µg/mL)
Cefazolin	Report results	Resistant (≥ 64 µg/mL)
Ceftriaxone	Report results	Resistant (= 16 µg/mL)
Cefepime	Report results	Sensitive (= 8 µg/mL)
Aztreonam	Report results	Resistant (≥ 64 µg/mL)
Ertapenem	Report results	Resistant (≥ 8 µg/mL)
Imipenem	Report results	Sensitive (= 1 µg/mL)
Meropenem	Report results	Resistant (≥ 16 µg/mL)
Gentamicin	Report results	Resistant (≥ 16 µg/mL)
Ciprofloxacin	Report results	Sensitive (= 1 µg/mL)
Levofloxacin	Report results	Sensitive (= 1 µg/mL)
Tetracycline	Report results	Sensitive (= 2 µg/mL)
Nitrofurantoin	Report results	Resistant (= 128 µg/mL)
Trimethoprim/Sulfamethoxazole	Report results	Sensitive (≤ 20 µg/mL)
Etest® antibiotic test strips <sup>7</sup>		
Ampicillin <sup>8</sup>	Report results	Sensitive (8 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	≥ 99% sequence identity to	99.5% sequence identity to
(~ 900 base pairs)	E. cloacae complex type strain	E. cloacae complex type strain
	(NR_118568.1)	(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-50403 was produced by inoculation of the deposited material into Nutrient broth and grown for 1 day at 37°C in an aerobic atmosphere. The material from the initial growth was passaged once in Tryptic Soy broth 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.

BEI Resources

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

<sup>&</sup>lt;sup>3</sup>The 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 Extended-Spectrum Beta-Lactamases (ESBLs) and ampicillin from the VITEK® (AST-GN84 Card) analysis. Alternative methods of testing are recommended by the manufacturer.



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

<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

Figure 1: Colony Morphology



**Date:** 12 AUG 2016

Signature:

**BEI Resources Authentication** 

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

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<sup>&</sup>lt;sup>10</sup>Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere on Tryptic Soy agar.