SUPPORTING INFECTIOUS DISEASE RESEARCH

# Enterobacter cloacae complex, Strain BEI11

# Catalog No. NR-50401

**Product Description:** Enterobacter cloacae complex (*E. cloacae* complex), strain BEI11 is from an unknown origin.

### Lot<sup>1</sup>: 64391843

# Manufacturing Date: 30MAR2016

| TEST  | SPECIFICATIONS  | RESULTS   |
|---|---|---|
|   | JE CIFICATIONS  | RESULIS   |
| Phenotypic Analysis   |   |   |
| Cellular morphology   | Gram-negative rods  | Gram-negative rods  |
| Colony morphology <sup>2</sup>                              | Report results  | Circular, convex, entire, smooth and cream (Figure 1)               |
| Motility (wet mount)  | Report results  | Motile  |
| Beta-lactamase <sup>3</sup>                                 | Report results  | Positive  |
| VITEK <sup>®</sup> 2 Compact (GN card)                      | E. cloacae complex (≥ 90%)  | E. cloacae complex (97%) <sup>4</sup>                               |
| Antibiotic Susceptibility Profile                           |   |   |
| VITEK <sup>®</sup> (AST-GN84 Card) <sup>5,6</sup>           |   |   |
| Amoxicillin/Clavulanic Acid                                 | Report results  | Sensitive (= 4 µg/mL)   |
| Piperacillin/Tazobactam                                     | Report results  | Intermediate (= 32 µg/mL)   |
| Cefazolin   | Report results  | Resistant (≥ 64 µg/mL)  |
| Ceftriaxone   | Report results  | Resistant (≥ 64 µg/mL)  |
| Cefepime  | Report results  | Resistant (≥ 64 µg/mL)  |
| Aztreonam   | Report results  | Resistant (≥ 64 µg/mL)  |
| Ertapenem   | Report results  | Resistant (= 4 µg/mL)   |
| Imipenem  | Report results  | Sensitive (= 0.5 µg/mL)   |
| Meropenem   | Report results  | Resistant (≥ 4 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 (≤ 2 µg/mL)   |
| Nitrofurantoin  | Report results  | Sensitive (≤ 16 µg/mL)  |
| Trimethoprim/Sulfamethoxazole                               | Report results  | Resistant (≥ 320 µg/mL)   |
| Etest <sup>®</sup> antibiotic test strips <sup>7</sup>      |   |   |
| Ampicillin <sup>8</sup>                                     | Report results  | Sensitive (= 8 µg/mL)   |
| Genotypic Analysis  |   |   |
| Sequencing of 16S ribosomal RNA gene<br>(~ 1490 base pairs) | ≥ 99% sequence identity to<br><i>E. cloacae</i> complex type strain | 99.3% sequence identity to<br><i>E. cloacae</i> 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>1</sup>NR-50401 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.

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

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

<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." <u>J. Clin. Microbiol.</u> 41 (2003): 2096-2101. PubMed: 12734254.

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

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

<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  $\leq$  8 µg/mL is sensitive, a MIC = 16 µg/mL is intermediate and a MIC  $\geq$  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.

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#### Figure 1: Colony Morphology



Date: 29 SEP 2016

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Signature:

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