

# Klebsiella pneumoniae, Strain MRSN 13748

## Catalog No. NR-55515

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## Product Description:

*Klebsiella pneumoniae* (*K. pneumoniae*), strain MRSN 13748 was isolated in 2011 from a human blood sample in Europe as part of a global surveillance program. NR-55515 was deposited as an extensively drug-resistant strain, sensitive to amikacin and ceftazidime/avibactam, intermediately resistant to ceftazidime and tobramycin and resistant to ampicillin/sulbactam, aztreonam, cefepime, ceftolozane/tazobactam, ceftriaxone, ciprofloxacin, ertapenem, gentamicin, imipenem, levofloxacin, meropenem, piperacillin/tazobactam, tetracycline, tigecycline and trimethoprim/sulfamethoxazole. NR-55515 was produced by inoculation of BEI Resources seed lot 70049764 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. Quality control testing was completed under propagation conditions unless otherwise noted.

**Lot: 70076808**

**Manufacturing Date: 25JUN2025**

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| TEST                                                                                                                                                                                                                                                                                                                                                                                               | SPECIFICATIONS                                                                                                                                                                                                                                               | RESULTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Phenotypic Analysis</b><br>Cellular morphology<br>Colony morphology<br><br>Motility (wet mount)<br>VITEK® 2 (GN card)                                                                                                                                                                                                                                                                           | Gram-negative rods<br>Report results<br><br>Report results<br><i>K. pneumoniae</i> (≥ 89%)                                                                                                                                                                   | Gram-negative rods<br>Circular, low convex, entire, smooth and cream<br>Non-motile<br><i>K. pneumoniae</i> (99%)                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Antibiotic Susceptibility Profile<sup>1,2</sup></b><br>Amikacin<br>Ampicillin/sulbactam<br>Aztreonam<br>Cefepime<br>Ceftazidime<br>Ceftazidime/avibactam<br>Ceftolozane/tazobactam<br>Ceftriaxone<br>Ciprofloxacin<br>Ertapenem<br>Gentamicin<br>Imipenem<br>Levofloxacin<br>Meropenem<br>Piperacillin/tazobactam<br>Tetracycline<br>Tigecycline<br>Tobramycin<br>Trimethoprim/sulfamethoxazole | Sensitive<br>Resistant<br>Resistant<br>Resistant<br>Resistant<br>Sensitive<br>Resistant<br>Resistant<br>Intermediate<br>Resistant<br>Resistant<br>Sensitive<br>Resistant<br>Intermediate<br>Resistant<br>Resistant<br>Resistant<br>Intermediate<br>Resistant | Sensitive (≤ 2 µg/mL)<br>Resistant (≥ 32 µg/mL)<br>Resistant (≥ 64 µg/mL)<br>Resistant (≥ 64 µg/mL)<br>Intermediate (16 µg/mL) <sup>3</sup><br>Sensitive (1.5 µg/mL)<br>Resistant (24 µg/mL)<br>Resistant (≥ 64 µg/mL)<br>Intermediate (2 µg/mL) <sup>4</sup><br>Resistant (≥ 8 µg/mL)<br>Resistant (≥ 16 µg/mL)<br>Sensitive (0.75 µg/mL) <sup>5</sup><br>Resistant (6 to 8 µg/mL)<br>Intermediate (2 µg/mL) <sup>6</sup><br>Resistant (≥ 128 µg/mL)<br>Resistant (≥ 16 µg/mL)<br>Resistant (≥ 8 µg/mL) <sup>7</sup><br>Intermediate (8 µg/mL)<br>Resistant (≥ 320 µg/mL) |
| <b>Genotypic Analysis</b><br>Sequencing of 16S ribosomal RNA gene (~ 1410 base pairs)                                                                                                                                                                                                                                                                                                              | ≥ 99% sequence identity to <i>K. pneumoniae</i> , strain MRSN 13748 (GenBank: JAGYER010000099.1)                                                                                                                                                             | 99.8% sequence identity to <i>K. pneumoniae</i> , strain MRSN 13748 (GenBank: JAGYER010000099.1) <sup>8</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| TEST                                                                                                             | SPECIFICATIONS                                    | RESULTS                                           |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------|
| <b>Purity</b><br>7 days at 37°C in an aerobic atmosphere with and without 5% CO <sub>2</sub> on Tryptic Soy agar | Growth consistent with expected colony morphology | Growth consistent with expected colony morphology |
| <b>Viability</b>                                                                                                 | Growth                                            | Growth                                            |

<sup>1</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

<sup>2</sup>Antibiotic susceptibility was tested using a combination of bioMérieux VITEK®2 GN74 and ETEST®.

<sup>3</sup>*K. pneumoniae*, strain MRSN 13748 was deposited as intermediately resistant to ceftazidime, but showed a MIC of 16 µg/mL (interpreted as resistant) for lot 70049653 during QC testing.

<sup>4</sup>*K. pneumoniae*, strain MRSN 13748 was deposited as resistant to ciprofloxacin, but showed a MIC of 2 µg/mL to 3 µg/mL (interpreted as intermediately resistant) for lot 70049653 during QC testing.

<sup>5</sup>*K. pneumoniae*, strain MRSN 13748 was deposited as resistant to imipenem, but showed a MIC of 0.5 µg/mL to 0.75 µg/mL (interpreted as sensitive) for lot 70049653 during QC testing.

<sup>6</sup>*K. pneumoniae*, strain MRSN 13748 was deposited as resistant to meropenem, but showed a MIC of 2 µg/mL (interpreted as intermediately resistant) for lot 70049653 during QC testing.

<sup>7</sup>MIC Interpretation Guideline: EUCAST Version 8.0 (2018)

<sup>8</sup>Also consistent with other *Klebsiella* species

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