

Antimicrobial Resistance Panel 7: *Pseudomonas aeruginosa* WaaP (Lipopolysaccharide Heptose Kinase) variants

Catalog No. NR-55646

Product Description:

NR-55646 consists of a three-member panel of *Pseudomonas aeruginosa* (*P. aeruginosa*), strain PA01 containing a plasmid with either a wild-type or mutant gene encoding for WaaP. Each panel component listed in Table 1 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 each respective lot. Quality control testing was completed under propagation conditions unless otherwise noted.

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Table 1: Panel Components

COMPONENT NUMBER	DESCRIPTION	PLASMID	LOT NUMBER	MANUFACTURING DATE
NR-51949	<i>P. aeruginosa</i> , Strain NB52019-TUN0039	pMMB206-Pa_WaaP-His	70046511	12AUG2021
NR-51950	<i>P. aeruginosa</i> , Strain NB52019-TUN0041	pMMB206-WaaP-R222E_R226E-His	70046567	13AUG2021
NR-51951	<i>P. aeruginosa</i> , Strain NB52019-TUN0040	pMMB206-WaaP-A214F-His	70046512	18AUG2021

Table 2: *P. aeruginosa*, Strain NB52019-TUN0039 (NR-51949)

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology Motility (Wet mount) VITEK® MS (MALDI-TOF)	Gram-negative rods Report results Report results <i>P. aeruginosa</i>	Gram-negative rods Circular, convex, entire, smooth and cream Motile <i>P. aeruginosa</i> (99.9%)
Antibiotic Susceptibility Profile Etest® antibiotic test strips 1 day at 35°C in an aerobic atmosphere on Mueller Hinton agar Chloramphenicol Ofloxacin	Report results Report results	≥ 256 µg/mL 0.75µg/mL
Genotypic Analysis Digital DNA-DNA hybridization (dDDH) ¹ Presence of pMMB206 plasmid	≥ 70% for species identification pMMB206 plasmid present	<i>P. aeruginosa</i> (95.3%) pMMB206 plasmid present
Purity 8 days at 37°C in an aerobic atmosphere with and without 5% CO ₂ on Tryptic Soy agar	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability	Growth	Growth

¹Relatedness between bacterial strains has traditionally been determined using DDH. For additional information, refer to Auch, A. F., et al. "Digital DNA-DNA Hybridization for Microbial Species Delineation by Means of Genome-to-Genome Sequence Comparison." *Stand. Genomic Sci.* 2 (2010): 117-134. PubMed: 21304684. *P. aeruginosa* DSM 50071(GenBank: FUXR00000000.1) was used for dDDH analysis

Table 3: *P. aeruginosa*, Strain NB52019-TUN0041 (NR-51950)

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology Motility (Wet mount) VITEK® MS (MALDI-TOF)	Gram-negative rods Report results Report results <i>P. aeruginosa</i>	Gram-negative rods Circular, low convex, entire, smooth and cream Motile <i>P. aeruginosa</i> (99.9%)
Antibiotic Susceptibility Profile Etest® antibiotic test strips 1 day at 35°C in an aerobic atmosphere on Mueller Hinton agar Chloramphenicol Ofloxacin	Report results Report results	≥ 256 µg/mL 1.5µg/mL
Genotypic Analysis Digital DNA-DNA hybridization (dDDH) ¹ Presence of pMMB206 plasmid	≥ 70% for species identification pMMB206 plasmid present	<i>P. aeruginosa</i> (95.3%) pMMB206 plasmid present
Purity 7 days at 37°C in an aerobic atmosphere with 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability	Growth	Growth

¹Relatedness between bacterial strains has traditionally been determined using DDH. For additional information, refer to Auch, A. F., et al. "Digital DNA-DNA Hybridization for Microbial Species Delineation by Means of Genome-to-Genome Sequence Comparison." *Stand. Genomic Sci.* 2 (2010): 117-134. PubMed: 21304684. *P. aeruginosa* DSM 50071(GenBank: FUXR00000000.1) was used for dDDH analysis

Table 4: *P. aeruginosa*, Strain NB52019-TUN0040 (NR-51951)

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology Motility (Wet mount) VITEK® MS (MALDI-TOF)	Gram-negative rods Report results Report results <i>P. aeruginosa</i>	Gram-negative rods Circular, low convex, entire, smooth and cream Motile <i>P. aeruginosa</i> (99.9%)
Antibiotic Susceptibility Profile Etest® antibiotic test strips 1 day at 35°C in an aerobic atmosphere on Mueller Hinton agar Chloramphenicol Ofloxacin	Report results Report results	>256 µg/mL 1.5 µg/mL
Genotypic Analysis Digital DNA-DNA hybridization (dDDH) ¹ Presence of pMMB206 plasmid	≥ 70% for species identification pMMB206 plasmid present	<i>P. aeruginosa</i> (95.3%) pMMB206 plasmid present
Purity 7 days at 37°C in an aerobic atmosphere with 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability	Growth	Growth

¹Relatedness between bacterial strains has traditionally been determined using DDH. For additional information, refer to Auch, A. F., et al. "Digital DNA-DNA Hybridization for Microbial Species Delineation by Means of Genome-to-Genome Sequence Comparison." *Stand. Genomic Sci.* 2 (2010): 117-134. PubMed: 21304684. *P. aeruginosa* DSM 50071(GenBank: FUXR00000000.1) was used for dDDH analysis

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