SUPPORTING INFECTIOUS DISEASE RESEARCH

Acinetobacter sp., Strain Ag2

Catalog No. NR-50122

Product Description: Acinetobacter sp., strain Ag2 was isolated in 2014 from the midgut of a mosquito (*Anopheles gambiae*, strain G3) in Las Cruces, New Mexico. NR-50122 was deposited as *Acinetobacter* sp., however, digital DNA-DNA hybridization analysis suggests that this organism may be *Acinetobacter bereziniae* (*A. bereziniae*).

Lot¹: 64360360

Manufacturing Date: 22JUN2016

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology ²	Report results	Circular, low convex, entire, smooth and gray (Figure 1)
Growth at 44°C on Tryptic Soy agar with 5% defibrinated sheep blood	Report results	No growth
Motility (wet mount)	Report results	Non-motile ³
Biochemical tests:		
Catalase	Positive	Positive
Oxidase	Negative	Negative
VITEK [®] 2 Compact (GN Card)	Acinetobacter sp. (≥ 95%)	A. Iwoffii (99%) ⁴
VITEK [®] MS (MALDI-TÒF)	Acinetobacter sp.	A. baumannii complex (77.7%)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 870 base pairs)	≥ 99% sequence identity to <i>Acinetobacter</i> sp., strain Ag2 (GenBank: LBNA01000008.1)	99.6% sequence identity to <i>Acinetobacter</i> sp., strain Ag2 (GenBank: LBNA01000008.1) ⁵
Digital DNA-DNA hybridization (dDDH) ⁶	> 70% for species identification	A. bereziniae (84.3%)
Purity (post-freeze) ⁷	Consistent with expected colony morphology	Consistent with expected colony morphology
Viability (post-freeze) ²	Growth	Growth

¹NR-50122 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 with 5% defibrinated sheep blood kolles, which were grown for 1 day at 37°C in an aerobic atmosphere to produce this lot.

²¹ day on Tryptic Soy agar with 5% defibrinated sheep blood at 37°C in an aerobic atmosphere

³Motility test performed on BBL™ Motility Test Medium w/TTC Indicator for 7 days at 37°C in an aerobic atmosphere with 5% CO₂

⁴Percent probabilities above 90% indicate a close match to the typical biochemical pattern for the given organism. 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.
⁵Also consistent with other Acinetobacter spp. 99.7% sequence identity to A. bereziniae type strain (GenBank: NR_117625.1)

⁶Relatedness 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." <u>Stand Genomic Sci</u>, 2 (2010): 117-134, PubMed: 21304684.

⁷Purity of this lot was assessed for 8 days on Tryptic Soy agar with 5% defibrinated sheep blood at 37°C in an aerobic atmosphere.

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Certificate of Analysis for NR-50122

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Figure 1: Colony Morphology



Date: 21 SEP 2016

Signature:

BEI Resources Authentication

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