Certificate of Analysis for NR-17785

Acinetobacter baumannii, Strain Naval-18

Catalog No. NR-17785

Product Description: *Acinetobacter baumannii* (*A. baumannii*), strain Naval-18 is a human isolate collected in June 2006 from the wound of a patient in Maryland, USA.

Lot[1]: 70018987 **Manufacturing Date: 28SEP2018**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphologies[2,3]	Report results	Colony Type 1: Circular, low convex, entire, smooth and cream (Figure 1) Colony Type 2: Circular, flat, entire, opaque and cream (Figure 1)
Growth at 44°C ± 2°C[4,5]	Growth	Growth
Motility (wet mount)	Report results	Non-motile
Biochemical tests:		
VITEK® 2 Compact (GN Card)	*A. baumannii* (≥ 89%)	*A. baumannii* (99%)
Catalase	Positive	Positive
Oxidase	Negative	Negative
VITEK® Mass Spectrometry (MALDI-TOF)	*A. baumannii*	*A. baumannii* complex (99.9%)[6]
Antibiotic Susceptibility Profile[7,8]		
VITEK® (AST-GN69 card)		
Ampicillin	Report results	Resistant (≥ 32 µg/mL)
Amoxicillin/Clavulanic Acid	Report results	Resistant (≥ 32 µg/mL)
Ampicillin/Sulbactam	Report results	Resistant (≥ 32 µg/mL)
Piperacillin/Tazobactam	Report results	Resistant (≥ 128 µg/mL)
Cefazolin	Report results	Resistant (≥ 64 µg/mL)
Ceftazidime	Report results	Inconclusive[9]
Ceftriaxone	Report results	Resistant (≥ 64 µg/mL)
Imipenem	Report results	Inconclusive[10]
Gentamicin	Report results	Resistant (≥ 16 µg/mL)
Tobramycin	Report results	Inconclusive[11]
Ciprofloxacin	Report results	Resistant (≥ 4 µg/mL)
Levofloxacin	Report results	Resistant (≥ 8 µg/mL)
Nitrofurantoin	Report results	Resistant (≥ 512 µg/mL)
Trimethoprim/Sulfamethoxazole	Report results	Resistant (≥ 320 µg/mL
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	≥ 99% sequence identity to *A. baumannii*, strain Naval-18 (GenBank: AFDA02000002.1)	100% sequence identity to *A. baumannii*, strain Naval-18 (GenBank: AFDA02000002.1)[12]
Purity (post-freeze)[13]	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)[2]	Growth	Growth

[1]NR-17785 lot 70018987 was produced by inoculation of BEI resources NRS-17785 lot 62711015 into Nutrient broth and incubated 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Nutrient agar kolles, which were grown 1 day at 37°C in an aerobic atmosphere to produce this lot.
[2]1 day at 37°C in an aerobic atmosphere on Nutrient agar
[3]Two colony types were observed. Plating of the individual colony types showed that they did not revert to the mixed colony type. VITEK® MS (MALDI-TOF) analysis identified cells from both colony types as *A. baumannii* complex. The 16S ribosomal RNA gene of each colony type was sequenced and found to have 100% sequence identity to the other colony type and to *A. baumannii*, strain Naval-18.
[4]1 day at 44°C ± 2°C in an aerobic atmosphere on Nutrient agar
[5]Growth at 44°C ± 2°C differentiates *A. baumannii* from *A. calcoaceticus and A. pittii*, which do not grow at 44°C ± 2°C.
[6]*A. baumannii* complex species include *A. baumannii*, *A. calcoaceticus*, *A. pittii* and *A. nosocomialis*.
[7]Antibiotic susceptibility testing was performed in duplicate for each colony type. Results are identical except where indicated.

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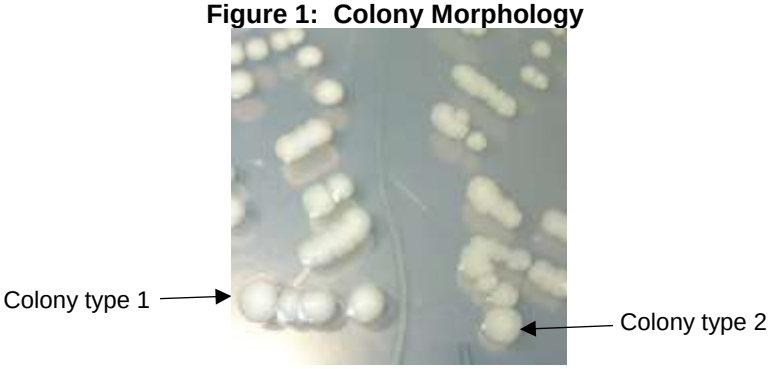
[8]Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)
[9]VITEK® 2 antibiotic susceptibility testing performed in duplicate determine that strain Naval-18 has a ceftazidime MIC of ≥ 64 µg/mL for colony type 1, which is considered resistant. For colony type 2, the ceftazidime MICs are 16 µg/mL and ≥ 64 µg/mL, which is considered as intermediate and resistant, respectively.
[10]VITEK® 2 antibiotic susceptibility testing performed in duplicate determine that strain Naval-18 has imipenem MICs of ≥ 16 µg/mL for colony type 1 and 8 µg/mL for colony type 2, which is considered as resistant and intermediate, respectively.
[11]VITEK® 2 antibiotic susceptibility testing performed in duplicate determine that strain Naval-18 has tobramycin MICs of 8 µg/mL for colony type 1 and 4 µg/mL for colony type 2, which is considered as intermediate and sensitive, respectively.
[12]Also consistent with other *Acinetobacter* species
[13]Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with 5% CO_2 on Nutrient agar.

Figure 1: Colony Morphology



/Heather Couch/
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