Product Information Sheet for NR-17781

Acinetobacter baumannii, Strain 5-143 (OIFC143)

Catalog No. NR-17781

This reagent is the tangible property of the U.S. Government.

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Moraxellaceae*, *Acinetobacter*
Species: *Acinetobacter baumannii*
Strain: 5-143 (OIFC143)
Original Source: *Acinetobacter baumannii (A. baumannii)*, strain 5-143 (OIFC143) is a human isolate collected in July 2003 from the thigh wound of a patient.[1]
Comments: *A. baumannii,* strain 5-143 (OIFC143) is part of the "Genomic Sequencing of a Diversity of US Military *Acinetobacter baumannii-calcoaceticus* Complex Isolates" project to sequence the genomes of clinical and environmental isolates of medically relevant *Acinetobacter* spp.[2] The complete genome of *A. baumannii*, strain OIFC143 was sequenced at the J. Craig Venter Institute (GenBank: AFDL00000000).

A. baumannii is an aerobic, Gram-negative bacillus that exhibits the ability to rapidly develop antibiotic resistance and is a major cause of hospital-acquired infection.[3] The genomes of multidrug resistant strains of *A. baumannii* contain resistance "islands" that can contain up to 45 resistance genes. Acquisition of these antibiotic resistance genes occurs through genetic exchange of plasmids, transposons and integrons with *Pseudomonas*, *Salmonella* and *Escherichia* species.[4,5,6]

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Tryptic Soy broth supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:

NR-17781 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:

Media:
Nutrient broth or Tryptic Soy broth or equivalent
Nutrient agar or Tryptic Soy agar or Tryptic Soy agar with 5% defibrinated sheep blood or equivalent
Incubation:
Temperature: 37°C
Atmosphere: Aerobic
Propagation:
1. Keep vial frozen until ready for use, then thaw.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tube, slant and/or plate at 37°C for 1 day.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Acinetobacter baumannii*, Strain 5-143 (OIFC143), NR-17781."

Biosafety Level: 2

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Nikolich, M. P., Personal Communication.
2. Nikolich, M. P. "*Acinetobacter baumannii* is an Emerging Nosocomial Pathogen and is an Important Emerging Pathogen in Treatment of Wounds in US Military Practice." J. Craig Venter Institute. (2009) <Genomics of Acinetobacter baumannii | J. Craig Venter Institute (jcvi.org) >.
3. Sarshar, M. et al. "*Acinetobacter baumannii*: An Ancient Commensal with Weapons of a Pathogen." Pathogens 10 (2021): 387. PubMed: 33804894.
4. Fournier, P.-E., et al. "Comparative Genomics of Multidrug Resistance in *Acinetobacter baumannii*." PLoS Genet. 2 (2006): e7. PubMed: 16415984.
5. Rodrigues, D. L. N., et al. "Pan-Resistome Insights into the Multidrug Resistance of *Acinetobacter baumannii*." Antibiotics 10 (2021): 596. PubMed: 34069870.
6. Huang, X. Z., et al. "Molecular Analysis of Imipenem-Resistant *Acinetobacter baumannii* Isolated from US Service Members Wounded in Iraq, 2003-2008." Epidemiol. Infect. 140 (2012): 2302-2307. PubMed: 22273504.

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