Acinetobacter baumannii, Strain 5-189 (OIFC189)

Catalog No. NR-17782

For research use only. Not for human use.

Contributor:
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Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: *Moraxellaceae, Acinetobacter*
Species: *Acinetobacter baumannii*
Strain: 5-189 (also referred to as strain OIFC189)
Note: The strain designation on the vial label for lot 62711007 is incorrect. The correct strain designation is 5-189 (OIFC189).
Original Source: *Acinetobacter baumannii* (*A. baumannii*), strain 5-189 (OIFC189) is a human isolate.[1]
Comments: *A. baumannii*, strain 5-189 (OIFC189) 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 OIFC189 was sequenced at the J. Craig Venter Institute (GenBank: AFDM00000000).

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]

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-17782 was packaged aseptically, in screw-capped plastic 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:
Tryptic Soy broth or Nutrient broth or Brain Heart Infusion broth or equivalent
Tryptic Soy agar or Tryptic Soy agar with 5% defibrinated sheep blood or Nutrient agar 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 24 hours.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Acinetobacter baumannii*, Strain 5-189 (OIFC189), NR-17782."

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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. 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 (12): 2302-2307. PubMed: 22273504.
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) <http://gsc.jcvi.org/projects/gsc/a_baumannii/index.php>.
3. Howard, A., et al. "*Acinetobacter baumannii*: an Emerging Opportunistic Pathogen." Virulence 3 (2012): 243-250. PubMed: 22546906.
4. Fournier, P. E., et al. "Comparative Genomics of Multidrug Resistance in *Acinetobacter baumannii*." PLoS Genet. 2 (2006): e7. PubMed: 16415984.
5. Imperi, F., et al. "The Genomics of *Acinetobacter baumannii*: Insights into Genome Plasticity, Antimicrobial Resistance and Pathogenicity." IUBMB Life 63 (2011): 1068-1074. PubMed: 22034231.

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