

***Acinetobacter baumannii*, Strain BC-5**

Catalog No. NR-17783

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: BC-5

Original Source: *Acinetobacter baumannii* (*A. baumannii*), strain BC-5 was isolated in 2007 from a nosocomial spread of war-related multi-drug resistant *A. baumannii* in a civilian hospital in British Columbia, Canada. The infection originated from a soldier who was evacuated from Landstuhl Regional Medical Center in Landstuhl, Germany.¹

Comments: *A. baumannii*, strain BC-5 is reported to be a multidrug resistant strain and 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 BC-5 was sequenced at the [J. Craig Venter Institute](http://www.jcvi.org) (GenBank: [AFDN00000000](http://www.ncbi.nlm.nih.gov/GenBank/AFDN00000000)).

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 Nutrient broth supplemented with 10% glycerol.

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

Packaging/Storage:

NR-17783 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 1 day.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: *Acinetobacter baumannii*, Strain BC-5, NR-17783.”

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. 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](http://www.jcvi.org). (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.
6. Bouvet, P. J. M. and P. A. D. Grimont. "Taxonomy of the Genus *Acinetobacter* with the Recognition of *Acinetobacter baumannii* sp. nov., *Acinetobacter haemolyticus* sp. nov., *Acinetobacter johnsonii* sp. nov., and *Acinetobacter junii* sp. nov. and Emended Descriptions of *Acinetobacter calcoaceticus* and *Acinetobacter Iwoffii*." *Int. J. Syst. Bacteriol.* 36 (1986): 228-240.

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