

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

Catalog No. NR-17783

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

For research use only. Not for use in humans.

Contributor:

Mikeljion P. Nikolich, Ph.D., Department of Dangerous Bacterial Pathogens, Walter Reed Army Institute of Research, Silver Spring, Maryland, USA

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 was 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](#) (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 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-17783 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:

Tryptic Soy broth or Nutrient 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 \(BMBL\)](#), 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at [www.beiresources.org](#).

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

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 \(jvci.org\)](#)>.
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 lwoffii*." [Int. J. Syst. Bacteriol.](#) 36 (1986): 228-240.

ATCC® is a trademark of the American Type Culture Collection.

