

***Acinetobacter* sp., Strain Ag2**

**Catalog No. NR-50122**

**For research use only. Not for human use.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

Bacteria Classification: *Moraxellaceae, Acinetobacter*

Genus: Deposited as *Acinetobacter* sp. (digital DNA-DNA hybridization analysis suggests that this organism may be *Acinetobacter bereziniae*).

Strain: Ag2

Original Source: *Acinetobacter* sp., strain Ag2 was isolated in 2014 from the midgut of a mosquito (*Anopheles gambiae*, strain G3) in Las Cruces, New Mexico.<sup>1</sup>

*Acinetobacter* species are aerobic, Gram-negative, coccobacilli commonly present in soil and water. Some species are also commonly found living on the skin, or in the throat and secretions of healthy people. Members of the genus *Acinetobacter* are non-motile, aerobic, oxidase-negative, catalase-positive, indole-negative and nitrate-negative. These and other phenotypic characters utilized in various commercial identification systems (e.g., API 20NE and VITEK) can identify isolates to the *Acinetobacter* genus, but molecular methods are required for confirmation of species.<sup>2</sup>

*Acinetobacter bereziniae* (*A. bereziniae*) is an aerobic, Gram-negative bacillus that exhibits the ability to rapidly develop antibiotic resistance and is responsible for health care-associated infections.<sup>3,4</sup> *A. bereziniae* has previously been associated with the metallo- $\beta$ -lactamases IMP-1, SIM-1 and VIM-2 which were related to the  $\beta$ -lactamase mediated resistance to carbapenems.<sup>4</sup>

**Material Provided:**

Each vial contains approximately 0.5 mL of bacterial culture in Brain Heart Infusion broth supplemented with 10% glycerol.

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

**Packaging/Storage:**

NR-50122 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* sp., Strain Ag2, NR-50122."

**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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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**References:**

1. Xu, J., Personal Communication.
2. Bergogne-Bérézin, E., M. L. Joly-Guillou and K. J. Towner, eds. *Acinetobacter: Microbiology, Epidemiology, Infection, Management*. New York: CRC Press, 1996.
3. Nemeč, A., et al. "*Acinetobacter bereziniae* sp. nov. and *Acinetobacter guillouiae* sp. nov., to Accommodate *Acinetobacter* Genomic Species 10 and 11, Respectively." *Int. J. Syst. Microbiol.* 60 (2010): 896-903. PubMed: 19661501.
4. Bonnin, R., et al. "Biochemical and Genetic Characterization of Carbapenem-Hydrolyzing  $\beta$ -Lactamase OXA-229 from *Acinetobacter bereziniae*." *Antimicrob. Agents Chemother.* 56 (2012): 3923-3927. PubMed: 22508298.

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