

***Bacillus cereus*, Strain BAG1X2-1**

**Catalog No. NR-28578**

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

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

Bacteria Classification: *Bacillaceae*, *Bacillus*

Species: *Bacillus cereus*

Strain: BAG1X2-1

Original Source: *Bacillus cereus* (*B. cereus*), strain BAG1X2-1 was isolated in 2009 from a soil sample collected in Boston, Massachusetts, USA.<sup>1</sup>

Comments: *B. cereus*, strain BAG1X2-1 is reported to contain a pXO2-like plasmid<sup>1</sup> and is part of a [Bacillus cereus Database Sequencing Project](#) at the Broad Institute.

The complete genome shotgun sequence of *B. cereus*, strain BAG1X2-1 is available (GenBank: [AHCT01000000](#)).

*B. cereus* is a Gram-positive, spore-forming, facultative aerobe. This organism is a ubiquitous opportunistic pathogen that can cause food poisoning in infected individuals. There are two forms of food poisoning that occur. The early onset (emetic) disease is caused by a small, stable dodecadepsipeptide cerulide<sup>2</sup> whereas the late onset (diarrheal) disease is caused by heat-labile enterotoxins.<sup>3</sup> Genetic and genomic analyses have revealed that the chromosome of *B. cereus* is very similar to *B. anthracis*.<sup>4</sup>

Clinical and environmental isolates of *B. cereus* containing large plasmids that share a common backbone with *B. anthracis* pXO1 and pXO2, have been identified.<sup>5,6</sup> The pXO1-like plasmid has demonstrated significant homology to *B. anthracis* pXO1 and harbors the entire anthrax toxin biosynthetic complex.<sup>6</sup> The pXO2-like plasmid contains genes capable of capsule production, however, they are not homologous to the *B. anthracis* capsule genes found on pXO2.<sup>7</sup>

**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-28578 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 equivalent  
Tryptic Soy agar or Tryptic Soy agar with 5% sheep blood or Nutrient agar or equivalent

Incubation:

Temperature: 28°C to 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 28°C to 37°C for 24 hours.

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Bacillus cereus*, Strain BAG1X2-1, NR-28578."

**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:**

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