

Bacillus cereus, Strain FDA 5

Catalog No. NR-608

(Derived from ATCC® 10702™)

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Bacillaceae, Bacillus*

Species: *Bacillus cereus*

Strain: FDA 5

Original Source: *Bacillus cereus* (*B. cereus*), strain FDA 5 was derived from strain Lederle 5, a laboratory isolate that was used for the determination of aureomycin in body fluids in the late 1940s.¹

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 cerulide² whereas the late onset (diarrheal) disease is caused by heat-labile enterotoxins.³ Genetic and genomic analyses have revealed that the chromosome of *B. cereus* is very similar to *B. anthracis*.⁴

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in 0.5X 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-608 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 equivalent

Tryptic Soy agar with 5% sheep blood 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 37°C for 24 to 48 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Bacillus cereus*, Strain FDA 5, NR-608."

Biosafety Level: 1

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. Dornbush, A. C. and E. J. Pelcak. "The Determination of Aureomycin in Serum and Other Body Fluids." Ann. N. Y. Acad. Sci. 51 (1948): 218-220. PubMed: 18112229.
2. Agata, N., et al. "A Novel Dodecadepsipeptide, Cereulide, Is an Emetic Toxin of *Bacillus cereus*." FEMS Microbiol. Lett. 129 (1995): 17-20. PubMed: 7781985.
3. Drobniewski, F. A. "*Bacillus cereus* and Related Species." Clin. Microbiol. Rev. 6 (1993): 324-338. PubMed: 8269390.
4. Ash, C., et al. "Comparative Analysis of *Bacillus anthracis*, *Bacillus cereus*, and Related Species on the Basis of Reverse Transcriptase Sequencing of 16S rRNA." Int. J. Syst. Bacteriol. 41 (1991): 343-346. PubMed: 1715736.
5. Rasko, D. A., et al. "Genomics of the *Bacillus cereus* Group of Organisms." FEMS Microbiol. Rev. 29 (2005): 303-329. PubMed: 15808746.
6. Priest, F. G., et al. "Population Structure and Evolution of the *Bacillus cereus* Group." J. Bacteriol. 186 (2004): 7959-7970. PubMed: 15547268.

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