

Product Information Sheet for NR-2492

Bacillus cereus, Strain NRRL B-569

Catalog No. NR-2492

(Derived from ATCC® 10876™)

For research use only. Not for human use.

Contributor:

ATCC®

Product Description:

Bacteria Classification: Bacillaceae, Bacillus

Species: Bacillus cereus Strain: NRRL B-569

Original Source: Isolated in 1944 from a contaminated flask

by Dr. Kenneth B. Raper

<u>pomments</u>: <u>Bacillus cereus</u>, strain NRRL B-569 was deposited at ATCC[®] in 1963 by Dr. William C. Haynes, Comments: USDA, Agricultural Research Service, Peoria, Illinois. This strain reportedly has enterotoxin activity² and contains a 650 kb plasmid.

Bacillus cereus (B. cereus) is a Gram-positive, sporeforming, 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 cerulide⁴ whereas the late onset (diarrheal) disease is caused by heat-labile enterotoxins.⁵ Genetic and genomic analyses have revealed that the chromosome of B. cereus is very similar to Bacillus anthracis.⁶ Most B. cereus strains produce β-lactamases and are resistant to β-lactam antimicrobial agents.

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Nutrient Broth supplemented with 20% glycerol.

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

Packaging/Storage:

NR-2492 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: **Nutrient Broth Nutrient Agar** Incubation:

Temperature: 30°C

Atmosphere: Aerobic

Propagation:

- Keep vial frozen until ready for use; thaw slowly.
- Transfer the entire thawed aliquot into a single tube of
- Use several drops of the suspension to inoculate an agar slant and/or plate.
- Incubate the tubes and plate at 30°C for 24 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Bacillus cereus, Strain NRRL B-569, NR-2492."

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, 2007; see www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm.

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References:

- Benedict, R. G., W. H. Schmidt, and R. D. Coghill. "Penicillin. VII. Penicillinase." <u>Arch. Biochem.</u> 8 (1945): 377–384.
- Carlson, C. R., et al. "Genotypic Diversity among Bacillus cereus and Bacillus thuringiensis Strains." <u>Appl. Environ.</u> <u>Microbiol.</u> 60 (1994): 1719–1725. PubMed: 16349267.
- Carlson, C. R., et al. "Physical Maps of the Genomes of Three Bacillus cereus Strains." J. Bacteriol. 174 (1992): 3750–3756. PubMed: 1594268.
- Agata, N., et al. "A Novel Dodecadepsipeptide, Cereulide, Is an Emetic Toxin of *Bacillus cereus*." <u>FEMS Microbiol</u>. Lett. 129 (1995): 17–20. PubMed: 7781985.
- Drobniewski, F. A. "Bacillus cereus and Related Species."
 Clin. Microbiol. Rev. 6 (1993): 324–338. PubMed: 8269390.
- 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.
- Fabiane, S. M., et al. "Crystal Structure of the Zinc-Dependent β-Lactamase from Bacillus cereus at 1.9 Å Resolution: Binuclear Active Site with Features of a Mononuclear Enzyme." <u>Biochemistry</u> 37 (1998): 12404–12411. PubMed: 9730812. PBD: 1BC2.
- Priest, F. G., et al. "Population Structure and Evolution of the *Bacillus cereus* Group." <u>J. Bacteriol.</u> 186 (2004): 7959–7970. PubMed: 15547268.

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