# Product Information Sheet for NR-22166

## *Bacillus cereus*, Strain MSX-A1

## Catalog No. NR-22166

## 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* (also referred to as *Bacillus cereus* Group 17 (BCG17)[1])
Strain: MSX-A1
Original Source: *Bacillus cereus* (*B. cereus*), strain MSX-A1 was isolated in 2004 from an air sample collected in Antarctica.[2]
Comments: *B. cereus*, strain MSX-A1 is part of a *Bacillus cereus* Database Sequencing Project at the Broad Institute. The complete genome sequence of *B. cereus*, strain MSX-A1 is available (GenBank: AHEO01000000).

*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[3] whereas the late onset (diarrheal) disease is caused by heat-labile enterotoxins.[4] Genetic and genomic analyses have revealed that the chromosome of *B. cereus* is very similar to *B. anthracis*.[5]

Clinical and environmental isolates of *B. cereus* containing large plasmids that share a common backbone with *B. anthracis* pXO1 and pXO2, have been identified.[6,7] The pXO1-like plasmid has demonstrated significant homology to *B. anthracis* pXO1 and harbors the entire anthrax toxin biosynthetic complex.[7] The pXO2-like plasmid contains genes capable of capsule production, however, they are not homologous to the *B. anthracis* capsule genes found on pXO2.[8]

### 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-22166 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% defibrinated 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 37°C for 1 to 2 days.

### Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Bacillus cereus*, Strain MSX-A1, NR-22166."

### 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.

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## References:

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