

Bacillus sp., Strain NRS 201

Catalog No. NR-52256

(Derived from ATCC® 7064™)

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Bacillaceae*, *Bacillus*

Species: *Bacillus* sp.

Strain: NRS 201

Original Source: *Bacillus* sp., strain NRS 201 was originally isolated from blood by L. Siribaed and deposited at ATCC® by Dr. N. R. Smith as *Bacillus siamensis* Siribaed.^{1,2}

Comments: *Bacillus* sp., strain NRS 201 reportedly has enterotoxin activity and does not produce zwittermixin A.^{3,4} NR-52256 was previously classified as *Bacillus cereus*; however, in-house sequencing and digital DNA-DNA Hybridization data (dDDH) was only able to confirm to the genus level.

Bacillus species are Gram-positive, motile, sporulating, facultative anaerobes and thermophilic rod-shaped bacteria found in a variety of environments, including soil and food. Several species are used in biotechnology and agricultural applications.⁵ While most species are harmless, members of the *B. cereus* subgroup are responsible for food poisoning and infections of the skin, blood and nervous system. Of particular concern is *B. anthracis*, the cause of anthrax, a potentially fatal infection of the skin, gastrointestinal tract and/or respiratory system, and a potential bioterrorist agent.⁶

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-52256 was packaged aseptically in 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 or Tryptic Soy broth or equivalent

Nutrient agar or Tryptic Soy agar or equivalent

Incubation:

Temperature: 25°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 25°C for 1 to 2 days.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Bacillus* sp., Strain NRS 201, NR-52256."

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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Smith, N. R., R. E. Gordon and F. E. Clark. "Aerobic Spore Forming Bacteria." U. S. Dep. Agric. Monogr. 16 (1952): 1-148.
2. Lawrence, J. S. and W. W. Ford. "Spore-Bearing Bacteria in Milk." J. Bacteriol. 1 (1916): 277-320. PubMed: 16558697.
3. Carlson, C. R., et al. "Genotypic Diversity among *Bacillus cereus* and *Bacillus thuringiensis* Strains." Appl. Environ. Microbiol. 60 (1994): 1719-1725. PubMed: 16349267.
4. Stabb, E. V., L. M. Jacobson and J. Handelsman. "Zwittermicin A-Producing Strains of *Bacillus cereus* from Diverse Soils." Appl. Environ. Microbiol. 60 (1994): 4404-4412. PubMed: 7811080.
5. Mongkolthanaruk, W. "Classification of *Bacillus* Beneficial Substances Related to Plants, Humans and Animals." J. Microbiol. Biotechnol. 22 (2012): 1597-1604. PubMed: 23221520.
6. Drobniewski, F. A. "*Bacillus cereus* and Related Species." Clin. Microbiol. Rev. 6 (1993): 324-338. PubMed: 8269390.

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