

Bacillus cereus, Strain BAG6O-1

Catalog No. NR-28593

Product Description: *Bacillus cereus* (*B. cereus*), strain BAG6O-1 (previously referred to as BES1O-1) was isolated in 2007 from a soil sample collected in Boston, Massachusetts, USA.

Lot^{1,2}: 61649124

Manufacturing Date: 04APR2013

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis³ Cellular morphology Colony morphology ⁴ Motility ⁵ Hemolysis Biochemical characterization ⁶ Production of acid from trehalose Production of acid from salicin ⁷ Production of acid from glycerol ⁷ Nitrate reduction Arginine dihydrolase activity	Report results Report results Motile Report results Positive Report results Report results Report results Report results	Gram-positive rods Circular, entire, opaque and rough (Figure 1) Motile β-hemolytic Positive Positive Positive Positive Positive
PCR Assay of Extracted DNA⁸ 16S ribosomal RNA gene <i>B. anthracis</i> specific chromosomal marker ⁹ Presence of virulence plasmids ¹⁰ pXO1 (four targets) pXO2 (three targets)	~ 560 base pair amplicon No amplicon No amplicons No amplicons	~ 560 base pair amplicon No amplicon No amplicons No amplicons
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 830 base pairs)	Consistent with <i>B. cereus</i> group	Consistent with <i>B. cereus</i> group ¹¹
Viability (post-freeze)⁴	Growth	Growth

¹NR-28593 was produced by inoculation of the deposited material into Tryptic Soy broth with 5% defibrinated sheep blood and grown for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to kolles, which were grown for 1 day at 37°C in an aerobic atmosphere to produce this lot.

²NR-28593 was deposited as *B. cereus*. Current quality control testing at ATCC could not distinguish between *B. cereus* and *B. thuringiensis* for this product.

³Presumptive identification of *B. cereus* was performed using phenotypic tests that eliminate other *B. cereus* group (*B. cereus*, *B. anthracis*, *B. thuringiensis* and *B. mycoides*) members (see footnotes 2, 5, 7, 8).

⁴1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

⁵1 day at 37°C in an aerobic atmosphere on motility test media with triphenyltetrazolium chloride (TTC). In the *B. cereus* group, *B. cereus* and *B. thuringiensis* are motile, whereas *B. anthracis* and *B. mycoides* are non-motile.

⁶Negative tests are observed for >7 days.

⁷*B. anthracis* is negative for glycerol and salicin.

⁸DNA was extracted from a broth culture produced from NR-28593 lot 61649124.

⁹A proprietary (Patent Pending) PCR-based assay capable of differentiating *B. anthracis* from the remainder of the *B. cereus* group was used to further eliminate *B. anthracis* as a possible species.

¹⁰Presence of virulence plasmids was verified using a proprietary (Patent Pending) PCR-based assay.

¹¹*Bacillus cereus* group species cannot be classified based on 16S sequence (Spencer, R. C. "*Bacillus anthracis*." *J. Clin. Pathol.* 56 (2003): 182-187. PubMed: 12610093).

Figure 1: Colony Morphology



Date: 20 MAR 2017

Signature: 

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