

Bacillus anthracis, Strain Sterne ΔGBAA0148-2

Catalog No. NR-10000

Product Description: *Bacillus anthracis* (*B. anthracis*), strain Sterne ΔGBAA0148-2 is a deletion mutant of the toxigenic acapsulate original Sterne strain (34F2), constructed by replacing codons 10 through 14 with three in-frame stop codons followed by the recognition site for *Bam*HI (to facilitate screening of the correct mutation). The remainder of the spore germination gene (*gerD*; GBAA0148-2) retains the wild type sequence.

Lot¹: 58441521

Manufacturing Date: 17DEC2008

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Sporulation Motility β-hemolysis Capsule (India ink staining) Tenacious Analytical profile index (API [®] 50 CHB including API [®] 20E; ONPG to GEL only) Nitrate reduction	Gram-positive rod Report results Positive Non-motile Non-hemolytic Negative Positive Consistent with <i>B. anthracis</i> Positive	Gram-positive rod Circular, flat, entire, ground-glass, grey, opaque (Figure 1) Positive Non-motile Non-hemolytic Negative Positive Consistent with <i>B. anthracis</i> Positive
Genotypic Analysis³ Sequencing of 16S ribosomal RNA gene (~ 1410 base pairs)	Consistent with <i>Bacillus cereus</i> group	Consistent with <i>Bacillus cereus</i> group ^{4,5}
PCR Assay of Extracted DNA³ 16S ribosomal RNA gene Presence of virulence plasmids pXO1 (<i>aat</i>) pXO2 (<i>at</i> , <i>capA</i> , <i>capB</i> , <i>capC</i>)	~ 1500 bp amplicon ~ 125 bp amplicon No amplicons	~ 1500 bp amplicon ~ 125 bp amplicon No amplicons
Viability (post-vialing)⁶	Growth	Growth

¹*B. anthracis*, strain Sterne ΔGBAA0148-2 was deposited by Philip C. Hanna, Associate Professor, Department of Microbiology and Immunology, University of Michigan Medical School, Ann Arbor, Michigan. NR-10000 was produced by inoculation of the deposited material into Tryptic Soy Broth and grown 24 hours at 37°C. Broth inoculum was added to Kolles which were grown 24 hours at 37°C to produce this lot.

²24 hours at 37°C on Tryptic Soy Agar with 5% sheep blood

³DNA was extracted from a broth culture produced from NR-10000, lot 58441521.

⁴*Bacillus cereus* group species (*B. cereus*, *B. thuringiensis*, *B. mycoides*, and *B. anthracis*) cannot be classified based on 16S sequence (Spencer, R. C. "Bacillus anthracis." *J. Clin. Pathol.* 56 (2003): 182-187. PubMed: 12610093).

⁵Also consistent with *Bacillus coagulans*

⁶24 hours at 37°C in Tryptic Soy Broth

Figure 1



Date: 19 NOV 2009

Signature: Signature on File

Title: Technical Manager, BEI Authentication or designee

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