

Bacillus anthracis, Strain Sterne 34F2, ΔGBAA1346-2

Catalog No. NR-9997

Product Description: *Bacillus anthracis* (*B. anthracis*), strain Sterne 34F2, ΔGBAA1346-2 was deposited as a putative internalin, null mutant.

Lot¹: 58394756

Manufacturing Date: 12NOV2008

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Sporulation Hemolysis ² Motility Capsule (India ink staining) Tenacious Analytical profile index (API [®] 50 CHB including API [®] 20E; ONPG to GEL only) Nitrate reduction	Gram-positive rods Report results Report results Non-hemolytic Non-motile Negative Positive <i>B. anthracis</i> (≥ 80%) Positive	Gram-positive rods Circular, flat, entire, ground-glass, opaque and gray (Figure 1) Endospores present Non-hemolytic Non-motile Negative Positive <i>B. anthracis</i> (81.3%) Positive
Genotypic Analysis Sequencing of 16S ribosomal RNA (rRNA) gene (~ 1400 base pairs)	> 99% identical to <i>B. anthracis</i> , strain Sterne (GenBank: AE017225)	99.9% identical to <i>B. anthracis</i> , strain Sterne (GenBank: AE017225) ³
PCR Amplification of <i>B. anthracis</i> specific chromosomal region⁴	~ 200 base pair amplicon	~ 200 base pair amplicon
Presence of Plasmids Confirmed by PCR Amplification^{5,6} 16S rRNA gene pXO1 (four targets) pXO2 (three targets)	Amplicon present Amplicons present No amplicons	Amplicon present Amplicons present No amplicons
Viability (post-freeze)²	Growth	Growth

¹NR-9997 was produced by inoculation of the deposited material into Brain Heart Infusion broth and grown 1 day at 30°C in an aerobic atmosphere. 10% glycerol was added to the resulting growth and the mixture was cryopreserved. A vial of the preserved material was thawed and used to inoculate a tube of Tryptic Soy broth and grown 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles which were grown 1 day at 37°C in an aerobic atmosphere to produce this lot.

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

³Also consistent with *B. cereus* group species (*B. cereus*, *B. thuringiensis*, *B. mycoides*, and *B. anthracis*) which cannot be classified based on 16S sequence (Spencer, R. C. "Bacillus anthracis." *J. Clin. Pathol.* 56 (2003): 182-187. PubMed: 12610093).

⁴This product was verified to a species level using a PCR-based assay to a *B. anthracis*-specific genetic mutation capable of differentiating *B. anthracis* from the remainder of the *B. cereus* group.

⁵For PCR primers used in these assays, refer to Riojas, M. A., et al. "Multiplex PCR for Species-Level Identification of *Bacillus anthracis* and Detection of pXO1, pXO2, and Related Plasmids." *Health Security* 13 (2015): 122-129. PubMed: 25813976.

⁶Plasmids were verified using a PCR-based assay to *B. anthracis*-plasmids pXO1 and pXO2.

Figure 1: Colony Morphology



Date: 01 MAR 2017

Signature:



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