

Bacillus anthracis*, Strain Sterne Δ *cyaA

Catalog No. NR-10007

Product Description: *Bacillus anthracis* (*B. anthracis*), strain Sterne Δ *cyaA* is a markerless, nonpolar, deletion mutant of the toxigenic acapsulate original Sterne strain (34F2).^{1,2} The mutant allele replaces the entire open reading frame except for the initial ATG codon and terminal stop codon and includes the recognition site for the restriction endonuclease *MfeI*.

Lot¹: 58441528

Manufacturing Date: 18DEC2008

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, erose, ground-glass, opaque and gray (Figure 1) Positive Non-motile Non-hemolytic Negative Positive Consistent with <i>B. anthracis</i> Positive
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1440 base pairs)	Consistent with <i>B. anthracis</i> and <i>B. cereus</i> group	Consistent with <i>B. anthracis</i> and <i>B. cereus</i> group ³
PCR Assay of Extracted DNA 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)⁴	Growth	Growth

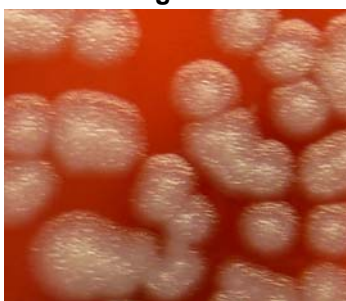
¹*B. anthracis*, strain Sterne Δ *cyaA* was deposited by Philip C. Hanna, Associate Professor, Department of Microbiology and Immunology, University of Michigan Medical School, Ann Arbor, Michigan. NR-10007 was produced by inoculation of the deposited material into Tryptic Soy Broth and grown 24 hours 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

³*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).

⁴24 hours at 37°C in Tryptic Soy Broth

Figure 1



Date: 16 OCT 2009**Signature:** Signature in File**Title:** Technical Manager, BEI Authentication or designee

ATCC[®], on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC[®]'s knowledge.

ATCC[®] is a trademark of the American Type Culture Collection.
You are authorized to use this product for research use only. It is not intended for human use.

