

Genomic DNA from *Bacillus anthracis*, Strain Sterne $\Delta pagA$

Catalog No. NR-10310

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Contributor:

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Product Description:

Genomic DNA was extracted from a preparation of *Bacillus anthracis* (*B. anthracis*), strain Sterne $\Delta pagA$. *B. anthracis*, strain Sterne $\Delta pagA$ is a markerless nonpolar deletion mutant of the toxigenic acapsulate original Sterne strain (34F2).¹

B. anthracis virulence is dependent on the possession of two large plasmids, pXO1 and pXO2, which are responsible for the expression of an extracellular toxin and a polysaccharide capsule, respectively. The extracellular toxin is composed of three proteins: lethal factor, edema factor, and protective antigen.² The Sterne strain of *B. anthracis* is known to contain pXO1 and lack pXO2.

NR-10310 has been qualified for PCR applications by amplification of approximately 1500 base pairs of the 16S ribosomal RNA gene. The presence of plasmid pXO1 and absence of plasmid pXO2 have been confirmed by PCR amplification of plasmid-specific sequences from extracted DNA.

Material Provided:

Each vial of lot 70006805 contains 0.7 μ g to 1.5 μ g of bacterial genomic DNA in 10 mM Tris-HCl, pH 8 - 8.5. Each vial of lot 58253185 contains 4 to 6 μ g of bacterial genomic DNA in TE buffer (10 mM Tris-HCl and 1 mM EDTA, pH ~ 7.4). The concentration is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

Packaging/Storage:

NR-10310 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Note: NR-10310 lot 70006805 was not provided in ethylenediaminetetraacetic acid (EDTA); for long-term storage, EDTA may be added to a final concentration of 0.1 mM to 1 mM.

Citation:

Acknowledgment for publications should read "The following reagent was contributed by P. Hanna, University of Michigan for distribution by BEI Resources, NIAID, NIH: Genomic DNA from *Bacillus anthracis*, Strain Sterne $\Delta pagA$, NR-10310."

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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbL5/index.htm.

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References:

1. Sterne, M. "The Immunization of Laboratory Animals against Anthrax." Onderstepoort J. Vet. Sci. Anim. Ind. 13 (1939): 313-317.
2. Oncü, S., S. Oncü and S. Sakarya. "Anthrax – An Overview." Med. Sci. Monit. 9 (2003): RA276-RA283. PubMed: 14586293.

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