Genomic DNA from *Yersinia pseudotuberculosis*, Strain IP2666

Catalog No. NR-4647

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Contributor:

James B. Bliska, Associate Professor, Department. of Molecular Genetics and Microbiology, Center for Infectious Diseases, State University of New York at Stony Brook, Stony Brook, New York

Product Description:

Genomic DNA was isolated from a preparation of *Yersinia pseudotuberculosis* (*Y. pseudotuberculosis*), strain IP2666. This strain belongs to serogroup III and was obtained from a clinical isolate in France.[1] The presence of the virulence plasmid pIB1/pYV in this strain was confirmed by low Ca^{2+} response prior to deposition.

Y. pseudotuberculosis is a small rod-shaped, Gram-negative bacterium. The key virulence factors in *Y. pseudotuberculosis* are carried on a plasmid referred to as pCD1 (also known as pIB1 or pYV) which encodes a type III secretion system and the associated effector proteins, known as Yops (*Yersinia* outer proteins). The pCD1 plasmid is present in all three pathogenic species of *Yersinia* and is absolutely necessary for virulence.[2]

NR-4647 has been qualified for PCR applications by amplification of approximately 1500 bp of the 16S ribosomal RNA gene.

Material Provided:

Each vial contains approximately 4–6 µg of bacterial genomic DNA in TE buffer (10 mM Tris-HCl, 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-4647 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.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Genomic DNA from *Yersinia pseudotuberculosis*, Strain IP2666, NR-4647."

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, 2007; see www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm.

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References:

1. Simonet, M. and S. Falkow. "Invasin Expression in *Yersinia pseudotuberculosis*." Infect. Immun. 60 (1992): 4414–4417. PubMed: 1398952.
2. Huang, X.-Z., M. P. Nikolich, and L. E. Lindler. "Current Trends in Plague Research: From Genomics to Virulence." Clin. Med. Res. 4 (2006): 189–199. PubMed: 16988099.
3. Viboud, G. I., E. Mejía, and J. B. Bliska. "Comparison of YopE and YopT Activities in Counteracting Host Signalling Responses to *Yersinia pseudotuberculosis* Infection." Cell. Microbiol. 8 (2006): 1504–1515. PubMed: 16922868.

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