

## Genomic DNA from *Yersinia pseudotuberculosis*, Strain YPIII (p+)

### Catalog No. NR-4653

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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, USA

#### Manufacturer:

BEI Resources

#### Product Description:

Genomic DNA was extracted from a preparation of *Yersinia pseudotuberculosis* (*Y. pseudotuberculosis*), strain YPIII (p+). This strain belongs to serogroup III. 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.<sup>1</sup>

NR-4653 has been qualified for PCR applications by amplification of ~ 1500 base pairs of the 16S ribosomal RNA gene.

#### Material Provided:

Each vial contains 0.7 µg to 1.5 µg of bacterial genomic DNA in 10 mM Tris-HCl, pH 8.0. Each vial of lot 57852121 contains approximately 4 µg to 6 µg of bacterial genomic DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH ~ 7.4). The vial should be centrifuged prior to opening.

#### Packaging/Storage:

NR-4653 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen 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 BEI Resources, NIAID, NIH: Genomic DNA from *Yersinia pseudotuberculosis*, Strain YPIII (p+), NR-4653."

#### 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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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#### References:

- 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.

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