

**Genomic DNA from *Yersinia pestis*, Strain A1122**

**Catalog No. NR-2644**

**For research use only. Not for human use.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

Genomic DNA was extracted from a preparation of *Yersinia pestis* (*Y. pestis*), strain A1122.

*Y. pestis*, strain A1122 was isolated from a California ground squirrel (*Spermophilus beecheyi*) in California in 1939.<sup>1</sup> It contains two virulence plasmids: 1) pMT1 [pFra; ~ 110 kilobases (kb)], which encodes a murine toxin and capsular protein with anti-phagocytic activities, and 2) pPCP1 (pPla; ~ 9.5 kb monomer or ~ 19 kb dimer), which encodes a protease that facilitates the initial dissemination of the bacteria to the lymph nodes.<sup>2</sup> *Y. pestis*, strain A1122 lacks the 70 kb plasmid that is essential for virulence as well as the unstable *pgm* locus.<sup>3-5</sup> The complete genome sequence for *Y. pestis*, strain A1122 is available (GenBank: [CP002956](https://www.ncbi.nlm.nih.gov/nuccore/CP002956)).

The presence of the 110 kb and the 19 kb plasmids in NR-2644 has been confirmed by PCR amplification of a virulence marker on each plasmid. NR-2644 has been qualified for PCR applications by amplification of approximately 1500 base pairs of the 16S ribosomal RNA gene.

**Material Provided:**

Each vial contains approximately 0.7 µg to 1.5 µg of bacterial genomic DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH ~ 8). Each vial of lot 5107283 contains approximately 5 µg of bacterial genomic DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH ~ 7.4). The concentration, expressed as µg per µL, is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

**Packaging/Storage:**

NR-2644 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 BEI Resources, NIAID, NIH: Genomic DNA from *Yersinia pestis*, Strain A1122, NR-2644.”

**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](https://www.cdc.gov/biosafety/publications/bmb15/index.htm). 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see [www.cdc.gov/biosafety/publications/bmb15/index.htm](https://www.cdc.gov/biosafety/publications/bmb15/index.htm).

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