

Shuttle Vector pFNLTP1 for Gene Expression in *Francisella* Species and *Escherichia coli*

Catalog No. NR-4194

For research use only. Not for human use.

Contributor:

Thomas C. Zahrt, Ph.D., Assistant Professor, Department of Microbiology and Molecular Genetics, Medical College of Wisconsin, Milwaukee, Wisconsin, USA

Manufacturer:

BEI Resources

Product Description:

NR-4194 is a shuttle vector developed for use in a variety of genetic procedures in both *Francisella* species and *Escherichia coli* (*E. coli*), including characterization of virulence determinants.^{1,2} pFNLTP1 was obtained by spontaneous deletion of pTOPO/FNL10 and contains genes that confer resistance to kanamycin and ampicillin. The plasmid was transformed into *E. coli* DH5 α cells (clone TCZ564) and extracted using a QIAGEN[®] Plasmid Mega Kit. pFNLTP1 has a molecular weight of 6872 base pairs.

A plasmid map of NR-4194 is attached. The complete sequence of plasmid pFNLTP1 is available (GenBank: [AY622904](#)).

Note: Plasmid pFNLTP1 contains the gene required for kanamycin resistance. The recommended concentration of kanamycin in culture is 50 μ g/mL.

Material Provided:

Each vial contains approximately 1 μ g of plasmid DNA in 10 mM Tris-HCl, pH ~ 8. The concentration is shown on the Certificate of Analysis.

Packaging/Storage:

NR-4194 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: Shuttle Vector pFNLTP1 for Gene Expression in *Francisella* Species and *Escherichia coli*, NR-4194.”

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/bmb15/index.htm.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC[®] nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC[®] nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC[®] and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC[®], their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

References:

1. Maier, T. M., et al. “Construction and Characterization of a Highly Efficient *Francisella* Shuttle Plasmid.” Appl. Environ. Microbiol. 70 (2004): 7511-7519. PubMed: 15574954.
2. LoVullo, E. D., et al. “Genetic Tools for Highly Pathogenic *Francisella tularensis* subsp. *tularensis*.” Microbiology 152 (2006): 3425-3435. PubMed: 17074911.

ATCC[®] is a trademark of the American Type Culture Collection.



