Yersinia pestis F1-V Fusion Protein, Dimer-Enriched Antigen, Recombinant from *Escherichia coli*

Catalog No. NR-2563

This reagent is the tangible property of the U.S. Government.

For research use only. Not for human use.

Contributor:

National Institutes of Allergy and Infectious Diseases, National Institutes of Health

Product Description:

Recombinant *Yersinia pestis (Y. pestis)* F1-V fusion protein, dimer-enriched antigen was purified from *Escherichia coli* and depleted of DNA and endotoxin.[1] Originally developed by the U.S. Army Medical Research Institute of Infectious Disease (USAMRIID), F1-V is a fusion protein consisting of the Fraction 1 (F1) capsular protein and the virulence-associated (V) regulatory protein from *Y. pestis* (GenPept: AAY23169).[2,3]

Material Provided:

Each vial contains approximately 1.5 mg of recombinant F1-V fusion protein in 20 mM L-arginine, 10 mM sodium chloride, 1 mM L-cysteine. The concentration and post-vialing pH are shown on the Certificate of Analysis for each lot.

Packaging/Storage:

NR-2563 was packaged in glass serum vials. It is provided frozen and should be stored at -70°C or colder immediately upon arrival. Thawed material should be held at 2°C to 8°C and used within 8 hours.

Functional Activity:

NR-2563 was demonstrated to be functionally active based on its reactivity with antibodies to both the F1 and V proteins. NR-2563 is protective in a *Y. pestis* lethal challenge murine model.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: *Yersinia pestis* F1-V Fusion Protein, Dimer-Enriched Antigen, Recombinant from *Escherichia coli*, NR-2563."

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.

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 make 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. Goodin, J. L., et al. "Purification and Protective Efficacy of Monomeric and Modified *Yersinia pestis* Capsular F1-V Antigen Fusion Proteins for Vaccination against Plague." Protein Expr. Purif. 53 (2007): 63-79. PubMed: 17293124.
2. Powell, B. S., et al. "Design and Testing for a Nontagged F1-V Fusion Protein as Vaccine Antigen against Bubonic and Pneumonic Plague." Biotechnol. Prog. 21 (2005): 1490–1510. PubMed: 16209555.
3. Heath, D. G., et al. "Protection against Experimental Bubonic and Pneumonic Plague by a Recombinant Capsular F1-V Antigen Fusion Protein Vaccine." Vaccine 16 (1998): 1131–1137. PubMed: 9682370.
4. Glynn, A., et al. "Protection against Aerosolized *Yersinia pestis* Challenge following Homologous and Heterologous

Biodefense and Emerging Infections Research Resources Repository
P.O. Box 4137
Manassas, VA 20108-4137 USA
www.beiresources.org

800-359-7370
Fax: 703-365-2898
E-mail: contact@beiresources.org

Prime-Boost with Recombinant Plague Antigens." Infect. Immun. 73 (2005): 5256–5261. PubMed: 16041052.

5. Jones, T., et al. "Intranasal Protollin/F1-V Vaccine Elicits Respiratory and Serum Antibody Responses and Protects Mice against Lethal Aerosolized Plague Infection." Vaccine 24 (2006): 1625–1632. PubMed: 16243411.
6. Santi, L., et al. "Protection Conferred by Recombinant *Yersinia pestis* Antigens Produced by a Rapid and Highly Scalable Plant Expression System." Proc. Natl. Acad. Sci. U.S.A. 103 (2006): 861–866. PubMed: 16410352.

Support Provided by NIAID

Biodefense and Emerging Infections Research Resources Repository
P.O. Box 4137
Manassas, VA 20108-4137 USA
www.beiresources.org

800-359-7370
Fax: 703-365-2898
E-mail: contact@beiresources.org