

Certificate of Analysis for NR-2563

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.

Product Description: Recombinant *Yersinia pestis (Y. pestis)* F1-V fusion protein, dimerenriched antigen was purified from *Escherichia coli* and depleted of DNA and endotoxin.

Lot: L0508004 Manufacturing Date: 10AUG2005

| TEST | SPECIFICATIONS | RESULTS |
|---|--|--|
| Appearance | Colorless, clear to slightly opalescent | Colorless, clear to slightly opalescent |
| SDS-PAGE (Reduced; Coomassie Blue) | Major band at ~ 51 ± 5 kDa | Major band at ~ 51 kDa |
| Identification by Western Blot Antibody to F1 protein Antibody to V protein | Major band at ~ 51 ± 5 kDa Major band at ~ 51 ± 5 kDa | Major band at ~ 51 kDa Major band at ~ 51 kDa |
| SDS-PAGE (Reduced; Silver stain) | Report results | Major band at ~ 51 kDa Trace dimer band at ~ 102 kDa Characteristic pattern below ~ 51 kDa |
| SDS-PAGE (Reduced; SYPRO Ruby stain, Fluorometric Scan) | ≥ 95% fluorescence intensity at ~ 51 kDa | ≥ 98% fluorescence intensity at ~ 51 kDa |
| Size-Exclusion HPLC Monomer Dimer Multimer | Report results ≥ 45% Report results | 27.1% 48.4% 24.5% |
| Concentration by Spectrophotometer at OD ₂₈₀ | 1.5 mg/mL ± 0.15 mg/mL | 1.58 mg/mL |
| Functional Activity Western Blot Antibody to F1 protein Antibody to V protein | Reactive Reactive | Reactive Reactive |
| Bioburden | 0 colony-forming units/mL | 0 colony-forming units/mL |
| Sterility | 0.2 μm filter sterilized | 0.2 μm filter sterilized |
| Endotoxin Content (Limulus Amoebocyte Lysate assay) | ≤ 5 EU/mL | 1.06 EU/mL |
| Host Cell Genomic DNA (qPCR) Escherichia coli | ≤ 100 pg/mL | 0.8 pg/mL |
| pH (post-vialing) | 9.9 ± 0.4 | 8.71 |

¹The pH of this lot decreased after vialing, likely due to solvation of atmospheric carbon dioxide.

800-359-7370



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Date: 24 APR 2008 **Signature:** Signature on File

Title: Technical Manager, BEI Authentication or designee

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