

## Lipopolysaccharide, from *Francisella tularensis* subsp. *holarctica*, Strain LVS

Catalog No. NR-2627

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

### Contributor:

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### Product Description:

Bacteria Classification: *Francisellaceae*, *Francisella*

Agent: *Francisella tularensis* subsp. *holarctica*

Biotype/Biovar: Type B

Strain: LVS (Live Vaccine Strain; FSC155)

Lipopolysaccharide (LPS) was prepared from *Francisella tularensis* subsp. *holarctica*, LVS by a modified hot aqueous phenol extraction method. The water soluble dialyzed extract was digested with ribonuclease, deoxyribonuclease and proteinase K followed by differential centrifugation. The precipitated LPS gel was dissolved in distilled water and subjected to repeated ultracentrifugations. The final LPS gel was dissolved in distilled water, aliquoted and lyophilized.

### Material Provided:

Each vial contains approximately 5 mg of lyophilized LPS.

### Packaging/Storage:

NR-2627 was packaged aseptically in glass serum vials. The product is shipped at room temperature and should be stored at room temperature or 4°C upon arrival.

### Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Lipopolysaccharide, from *Francisella tularensis* subsp. *holarctica*, Strain LVS, NR-2627."

### 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/bmb15/bmb15toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm).

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### References:

1. Conlan, J. W., et al. "Mice Intradermally-Inoculated with the Intact Lipopolysaccharide, but not the Lipid A or O-Chain, from *Francisella tularensis* LVS Rapidly Acquire Varying Degrees of Enhanced Resistance Against Systemic or Aero-genic Challenge with Virulent Strains of the Pathogen." *Microb. Pathog.* 34 (2003): 39-45. PubMed: 12620383.
2. Conlan, J. W., et al. "Mice Vaccinated With the O-Antigen of *Francisella tularensis* LVS Lipopolysaccharide Conjugated to Bovine Serum Albumin Develop Varying Degrees of Protective Immunity Against Systemic or Aerosol Challenge with Virulent Type A and Type B Strains of the Pathogen." *Vaccine* 20 (2002): 3465-3471. PubMed: 12297391.

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