

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

Catalog No. NR-2627

Product Description: Lipopolysaccharide was prepared from *Francisella tularensis* subsp. *holarctica* by a modified hot aqueous phenol extraction method followed by enzyme digestion and centrifugation.

Lot¹: 57735193

Manufacturing Date: JAN2006

TEST	SPECIFICATIONS	RESULTS
Analysis of LPS O-Polysaccharide Component Optical rotation NMR ¹ H - ¹³ C HSQC correlation spectrum	Report results Identical to reference ¹	[α] _D +182° (c 0.6, water) Identical to reference
Purity D-glucan content Nucleic acid content Protein content	Report results Report results Report results	< 0.2% < 0.1% < 0.3%

¹Conlan, 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.

Date: 06 JUL 2007

Signature: Signature on File

Title: Technical Manager, BEI Authentication or designee

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