

Certificate of Analysis for NR-597

Francisella tularensis subsp. holarctica, Strain LVSR

Catalog No. NR-597

Product Description: Francisella tularensis (F. tularensis) subsp. holarctica is a small, non-motile, aerobic, pleomorphic, Gram-negative coccobacillus which displays a moderate degree of human virulence.

Lot¹: 4052896 Manufacturing Date: 17FEB2005

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative coccobacillus	Gram-negative coccobacillus
Colony morphology ²	Report results	Entire, mucoid, yellow-gray
Hemolysis	Non-hemolytic	Non-hemolytic
Motility	Non-motile	Non-motile
X- and V-factor requirements	Negative	Negative
Biochemical tests		
Catalase	Positive	Positive
Oxidase	Negative	Negative
Urease	Negative	Negative
Indole	Report results	Negative
Hydrogen sulfide production	Report results	Positive
Nitrate	Report results	Negative
Glucose	Report results	Positive
Maltose	Report results	Positive
Sucrose	Report results	Negative
Glycerol	Report results	Negative
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 480 bp)	Consistent with <i>F. tularensis</i> subsp. <i>holarctica</i>	Consistent with <i>F. tularensis</i> subsp. <i>holarctica</i> ³
Viability (post-freeze) ²	Growth on agar	Growth on agar

¹F. tularensis subsp. holarctica, strain LVSR was deposited by Francis E. Nano, Ph.D., Professor, Department of Biochemistry and Microbiology, University of Victoria, Victoria, British Columbia, Canada. NR-597 was prepared by broth/agar culture of the deposited material.

Date: 18 SEP 2007 **Signature:** Signature on File

Title: Technical Manager, BEI Authentication or designee

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800-359-7370

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²24 hours at 37°C and aerobic atmosphere with 5% CO₂ on Cystine Heart Agar plus 5% defibrinated rabbit blood.

³Also consistent other *F. tularensis* subspecies.