SUPPORTING INFECTIOUS DISEASE RESEARCH

## Francisella tularensis subsp. novicida, Strain AlgID

#### Catalog No. NR-9713

**Product Description:** Francisella tularensis (*F. tularensis*) subsp. novicida, strain  $\Delta$ IgID is a transposon mutant of the wild-type strain U112, in which the *igID* gene region has been replaced with a mini-Tn5 insert, rendering it resistant to kanamycin.

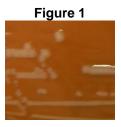
# Lot<sup>1</sup>: 58893070

### Manufacturing Date: 26FEB2010

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative coccobacillus	Gram-negative coccobacillus
Colony morphology <sup>2</sup>	Report results	Circular, convex, entire and gray (Figure 1)
Growth in the absence of cysteine	Growth	Growth
Motility	Non-motile	Non-motile
β-hemolysis	Non-hemolytic	Non-hemolytic
X- and V-factor requirements	Negative	Negative
CO <sub>2</sub> requirement	Negative	Negative
Biochemical tests		
Catalase	Positive	Positive
Oxidase	Negative	Negative
Urease	Negative	Negative
Nitrate	Negative	Negative
Indole	Negative	Negative
Hydrogen sulfide production	Report results	Positive
Glucose	Positive	Positive
Maltose	Report results	Negative
Sucrose	Report results	Negative
Glycerol	Positive	Positive
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1330 base pairs)	Consistent with <i>F. tularensis</i>	Consistent with <i>F. tularensis</i>
Molecular Subtyping by PCR Amplification of Subspecies-Specific Sequence from Extracted DNA <sup>3</sup>	~ 1500 bp amplicon (subsp. <i>tularensis</i> ) ~ 900 bp amplicon (subsp. <i>holarctica</i> ) ~ 3300 bp amplicon (subsp. <i>novicida</i> )	~ 3300 bp amplicon (subsp. <i>novicida</i> )
Viability (post-freeze) <sup>2</sup>	Growth	Growth

<sup>1</sup>F. tularensis subsp. novicida, strain ΔlglD was deposited by Francis E. Nano, Ph.D., Department of Biochemistry and Microbiology, University of Victoria, Victoria, British Columbia, Canada. NR-9713 was produced by inoculation of the deposited material into Brain Heart Infusion Broth and grown 24 hours at 37°C. Broth inoculum was added to Chocolate agar Kolles which were grown 24 hours at 37°C to produce this lot.
<sup>2</sup>48 hours at 37°C on chocolate agar (GC agar)

<sup>3</sup>Broekhuijsen, M., et al. "Genome-Wide DNA Microarray Analysis of *Francisella tularensis* Strains Demonstrates Extensive Genetic Conservation within the Species but Identifies Regions that are Unique to the Highly Virulent *F. tularensis* subsp. *tularensis*." <u>J. Clin. Microbiol.</u> 41 (2003): 2924-2931. PubMed: 12843022.



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# **Certificate of Analysis for NR-9713**

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Date: 14 FEB 2011

Signature: (

Title:

Technical Manager, BEI Authentication or designee

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