

***Francisella tularensis* subsp. *novicida*, Strain ΔPdpB**

**Catalog No. NR-9718**

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

**Lot<sup>1</sup>: 58795910**

**Manufacturing Date: 24SEP2009**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology <sup>2</sup>  Growth in the absence of cysteine Motility (wet mount) β-hemolysis X- and V-factor requirements CO <sub>2</sub> requirement Biochemical tests <sup>3</sup> Catalase Oxidase Urease Nitrate Indole Hydrogen sulfide production Glucose Maltose Sucrose Glycerol	Gram-negative coccobacillus Report results  Growth Report results Non-hemolytic Negative Negative  Positive Negative Negative Negative Negative  Report results Positive  Report results Positive Positive	Gram-negative coccobacillus Circular, low convex, entire, smooth and gray (Figure 1)  Growth Non-motile Non-hemolytic Negative Negative  Positive Negative Negative Negative Negative  Positive Positive Negative Negative <sup>3</sup> Positive
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1400 base pairs)	Consistent with <i>F. tularensis</i>	Consistent with <i>F. tularensis</i>
<b>Molecular Subtyping by PCR Amplification of Subspecies-Specific Sequence from Extracted DNA<sup>4,5</sup></b>	~ 3300 base pair amplicon	~ 3300 base pair amplicon
<b>Purity (post-freeze)<sup>6</sup></b>	Growth consistent with <i>F. tularensis</i> subsp. <i>novicida</i>	Growth consistent with <i>F. tularensis</i> subsp. <i>novicida</i>
<b>Viability (post-freeze)<sup>2</sup></b>	Growth	Growth

<sup>1</sup>*F. tularensis* subsp. *novicida*, strain ΔPdpB was deposited by Francis E. Nano, Ph.D., Department of Biochemistry and Microbiology, University of Victoria, Victoria, British Columbia, Canada. NR-9718 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>24 hours at 37°C on Chocolate agar in an aerobic atmosphere

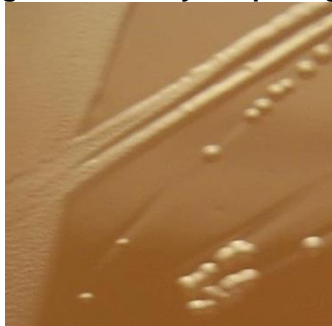
<sup>3</sup>Specifications for these tests were obtained from Bergey's Manual® of Systematic Bacteriology, 2<sup>nd</sup> ed., Volume 2, Part C, which indicates that a positive biochemical result is represented by >90% of strains tested being positive and a negative result is represented by <10% of strains tested being positive.

<sup>4</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*." *J. Clin. Microbiol.* 41 (2003): 2924-2931. PubMed: 12843022.

<sup>5</sup>*F. tularensis* subsp. *novicida* ~ 3300 base pair amplicon; subsp. *tularensis* ~1500 base pair amplicon; subsp. *holarctica* ~ 900 base pair amplicon

<sup>6</sup>Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere on Chocolate agar.

Figure 1: Colony Morphology



Date: 29 OCT 2015

Signature: 

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