**Francisella tularensis subsp. holarctica,** Strain LVSG

Catalog No. NR-585

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:** LVSG

**Source:** *F. tularensis* subsp. *holarctica* LVSG is a spontaneous colony-opacity (i.e. grey) variant isolated from the parent live vaccine strain (LVS).

*Francisella tularensis* (*F. tularensis*) is one of the most infectious bacterial pathogens known and is the causative agent of the febrile zoonotic disease tularemia. The environmental reservoir of the bacterium is unknown, although most human cases result from the bite of a blood-feeding arthropod vector.

*F. tularensis* subsp. *holarctica* is a small, non-motile, aerobic, pleomorphic, gram-negative cocobacillus which displays a moderate degree of human virulence. Very little is known about the virulence mechanisms of *F. tularensis*, but growth in macrophages is central to the bacterium's ability to cause disease.

NR-585 has been confirmed as subsp. *holarctica* (Type B) by PCR amplification of a subspecies-specific sequence of ~ 1250 bp from extracted DNA.

**Material Provided:**
Each vial contains approximately 0.5 mL of bacterial culture in 0.5X Tryptic Soy Broth supplemented with 10% glycerol.

**Packaging/Storage:**
NR-585 was packaged aseptically, in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

**Growth Conditions:**

**Media:**
Brain Heart Infusion Broth or Tryptic Soy Broth
Cystine Heart Agar with 5% defibrinated rabbit blood

**Incubation:**
Temperature: 37°C
Atmosphere: Aerobic with 5% CO₂

**Propagation:**
1. Keep vial frozen until ready for use; thaw slowly.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tubes and plate at 37°C for 24–48 hours.

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: *Francisella tularensis* subsp. *holarctica*, Strain LVSG, NR-585."

**Biosafety Level:** 2


This publication indicates that vaccination for *Francisella tularensis* is available and should be considered for personnel working with infectious materials.

**Disclaimers:**
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References:

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