Product Information Sheet for NR-3034

Genomic DNA from *Francisella tularensis* subsp. *novicida*, Strain CG21

Catalog No. NR-3034

For research use only. Not for human use.

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Product Description:
Genomic DNA was isolated from a preparation of *Francisella tularensis* subsp. *novicida*, strain CG21.

F. tularensis subsp. *novicida*, is a Gram-negative, facultative bacterium, which grows predominantly in macrophages when living in mammalian hosts.[1] It is commonly used for studying *F. tularensis* pathogenesis since it is highly virulent in mice but has minor effects on humans.[2]

F. tularensis subsp. *novicida*, strain CG21 is a transposon mutant of wild-type strain U112, with diminished ability to grow in mouse macrophages.[3]

NR-3034 has been confirmed as non-type B by PCR amplification of an approximately 390 bp amplicon.[4,5] Analysis of the 16S sequence indicates that NR-3034 is consistent with other strains of *F. tularensis* subsp. *novicida*. NR-3034 has been qualified for PCR applications by amplification of approximately 1500 bp of the 16S ribosomal RNA gene.

Material Provided:
Each vial contains approximately 4–6 µg of bacterial genomic DNA in TE buffer (10 mM Tris-HCl and 1 mM EDTA, pH 8.0). The vial should be centrifuged prior to opening.

Packaging/Storage:
NR-3034 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Genomic DNA from *Francisella tularensis* subsp. *novicida*, Strain CG21, NR-3034."

Biosafety Level: 1
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2007; see www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm.

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References:
1. McLendon, M. K., M. A. Apicella, and L. A. Allen. "*Francisella tularensis*: Taxonomy, Genetics, and Immunopathogenesis of a Potential Agent of Biowarfare." Annu. Rev. Microbiol. 60 (2006): 167–185. PubMed: 16704343.
2. de Bruin, O. M., J. S. Ludu, and F. E. Nano. "The *Francisella* Pathogenicity Island Protein IglA Localizes to the Bacterial Cytoplasm and Is Needed for Intracellular

Growth." BMC Microbiol. 7 (2007): 1–10. PubMed: 17233889.
3. Gray, C. G., et al. "The Identification of Five Genetic Loci of *Francisella novicida* Associated with Intracellular Growth." FEMS Microbiol. Lett. 215 (2002): 53–56. PubMed: 12393200.
4. Petersen, J. M., et al. "Laboratory Analysis of Tularemia in Wild-Trapped, Commercially Traded Prairie Dogs, Texas, 2002." Emerg. Infect. Dis. 10 (2004): 419–425. PubMed: 15109407.
5. Kugeler, K. J., et al. "Real-time PCR for *Francisella tularensis* Types A and B." Emerg. Infect. Dis. 12 (2006): 1799–1801. PubMed: 17283646.

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