

Genomic DNA from *Francisella tularensis* subsp. *novicida*, Strain KM14S

Catalog No. NR-3028

For research use only. Not for human use.

Contributor:

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Product Description:

Genomic DNA was isolated from a preparation of *Francisella tularensis* subsp. *novicida*, strain KM14S.

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 KM14S is a derivative of KM14 strain. The KM14S strain is unable to grow in macrophages and no longer expresses kanamycin resistance.³ KM14 is a derivative of the wild-type strain U112.

NR-3028 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-3028 is consistent with other strains of *F. tularensis* subsp. *novicida*. NR-3028 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-3028 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 KM14S, NR-3028."

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/bmb15/bmb15toc.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." Ann. 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 IgIA Localizes to the Bacterial Cytoplasm and Is Needed for Intracellular

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3. Mdluli, K. E., et al. "Serum-Sensitive Mutation of *Francisella novicida*: Association with an ABC Transporter Gene." Microbiology 140 (1994): 3309–3318. PubMed: 7881549.
 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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