

Genomic DNA from *Borrelia burgdorferi*, Strain B31 (Clone 5A1)

Catalog No. NR-56541

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Borrelia burgdorferi (*B. burgdorferi*), strain B31 (clone 5A1) was derived from the original B31 strain. The original B31 strain was isolated in the fall of 1981 from adult ticks (*Ixodes dammini* also referred to as *Ixodes scapularis*) collected from lower vegetation on Shelter Island, New York, USA.^{1,2} *B. burgdorferi*, strain B31 (clone 5A1) lacks the 5-kb and 56-kb linear plasmids (lp5- lp56⁻) of the parent B31 strain but is known to retain the other nineteen plasmids found in strain B31.³ The complete genome sequence of *B. burgdorferi*, strain B31 has been sequenced (GenBank: [AE000783](https://www.ncbi.nlm.nih.gov/nuccore/AE000783)).

NR-56541 has been qualified for PCR applications by amplification of approximately 1500 base pairs of the 16S ribosomal RNA gene.

Material Provided:

Each vial contains 0.7 to 1.5 µg of bacterial genomic DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0). The concentration is shown on the Certificate of Analysis. The vial should be centrifuged prior to opening.

Packaging/Storage:

NR-56541 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 BEI Resources, NIAID, NIH: Genomic DNA from *Borrelia burgdorferi*, Strain B31 (Clone 5A1), NR-56541."

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 \(BMBL\)](#), 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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References:

1. Burgdorfer, W., et al. "Lyme Disease – A Tick-Borne Spirochetosis?" *Science* 216 (1982): 1317-1319. PubMed: 7043737.
2. Johnson, R. C., et al. "*Borrelia burgdorferi* sp. nov.: Etiologic Agent of Lyme Disease." *Int. J. Syst. Bacteriol.* 34 (1984): 496-497.
3. Norris, S. J., Personal Communication.
4. Gupta, R. S., S. Mahmood and M. Adeolu. "A Phylogenomic and Molecular Signature Based Approach for Characterization of the Phylum *Spirochaetes* and Its Major Clades: Proposal for a Taxonomic Revision of the Phylum." *Front. Microbiol.* 4 (2013): 217. PubMed: 23908650. Erratum in: *Front. Microbiol.* 4 (2013): 322.

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