

Genomic DNA from *Brucella abortus*, Strain RB51

Catalog No. NR-2553

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Contributor:

Centers for Disease Control and Prevention, Atlanta, Georgia

Product Description:

Genomic DNA was isolated from a preparation of *Brucella abortus* (*B. abortus*), strain RB51.

B. abortus is a non-motile, aerobic, gram-negative coccobacillus which displays a moderate degree of human virulence. Very little is known about the genetics of *Brucella* virulence, largely due to a lack of classical virulence factors. A type IV secretion system has been identified as essential for intracellular survival and multiplication of *Brucella*.¹

B. abortus, strain RB51 is an attenuated, stable rough mutant derived from the virulent strain 2308.^{2,3} *B. abortus*, strain RB51 is the official vaccine for the U.S. bovine eradication program, and is also being used in several other countries to prevent and control animal brucellosis.

NR-2553 has been qualified for PCR applications by amplification of ~ 1430 bp of the 16S ribosomal RNA gene.

Material Provided:

Each vial contains approximately 2 µg bacterial genomic DNA, lyophilized from 0.05 mL containing TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH ~ 8.0). The vial should be centrifuged prior to opening.

Packaging/Storage:

NR-2553 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at 4°C or colder immediately upon arrival. For optimal long-term storage, freezing the material at -20°C or colder is recommended. 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 *Brucella abortus*, Strain RB51, NR-2553."

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. 4th ed. Washington, DC: U.S. Government Printing Office, 1999. HHS Publication No. (CDC) 93-8395. This text is available online at www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm.

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 6. Ratushna, V. G., et al. "Molecular Targets for Rapid Identification of *Brucella* spp." BMC Microbiol. 6 (2006): 13. PubMed: 16504063.
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