Genomic DNA from *Brucella suis*, Strain 1330 (NCTC 10316)

Catalog No. NR-2526

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Product Description:
Genomic DNA was isolated from a preparation of *Brucella suis (B. suis)*, strain 1330 (NCTC 10316).

B. suis is a non-motile, aerobic, gram-negative coccobacillus which displays moderate to high virulence in humans. 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. suis 1330 was isolated from swine in 1950 by Wesley W. Spink, M.D., University of Minnesota Medical School, Minneapolis, Minnesota. The complete genomic sequence of *Brucella suis*, strain 1330 has been determined (GenBank: NC_004310 and NC_004311).[2]

NR-2526 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 0.07 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-2526 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 suis*, Strain 1330 (NCTC 10316), NR-2526."

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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References:
1. Boschiroli, M. L., et al. "Type IV Secretion and *Brucella* Virulence." Vet. Microbiol. 90 (2002): 341–348. PubMed: 12414154.
2. Paulsen, I. T., et al. "The *Brucella suis* Genome Reveals Fundamental Similarities between Animal and Plant Pathogens and Symbionts." Proc. Natl. Acad. Sci. U.S.A. 99 (2002): 13148–13153. PubMed: 12271122. GenBank: NC_004310 and NC_004311.
3. Boschiroli, M. L., et al. "The *Brucella suis virB* Operon is Induced Intracellularly in Macrophages." Proc. Natl. Acad. Sci. U.S.A. 99 (2002): 1544–1549. PubMed: 11830669.
4. Lavigne, J.-P., et al. "Identification of a New Virulence Factor, BvfA, in *Brucella suis*." Infect. Immun. 73 (2005): 5524–5529. PubMed: 16113268.

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5. Lavigne, J.-P., et al. "The IncP Island in the Genome of *Brucella suis* 1330 was Acquired by Site-Specific Integration." Infect. Immun. 73 (2005): 7779–7783. PubMed: 16239585.
6. Ferrão-Beck, L., et al. "Development of a Multiplex PCR Assay for Polymorphism Analysis of *Brucella suis* Biovars Causing Brucellosis in Swine." Vet. Microbiol. 115 (2006): 269–277. PubMed: 16530357.
7. Halling, S. M., et al. "Completion of the Genome Sequence of *Brucella abortus* and Comparison to the Highly Similar Genomes of *Brucella melitensis* and *Brucella suis*." J. Bacteriol. 187 (2005): 2715–2726. PubMed: 15805518.
8. Chain, P. S. et al. "Whole-Genome Analyses of Speciation Events in Pathogenic Brucellae." Infect. Immun. 73 (2005): 8353–8361. PubMed: 16299333.
9. Ratushna, V. G., et al. "Molecular Targets for Rapid Identification of *Brucella* spp." BMC Microbiol. 6 (2006): 13. PubMed: 16504063.

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