Certificate of Analysis for NR-56541

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

Catalog No. NR-56541

Product Description:

Genomic DNA was extracted from a preparation of *Borrelia burgdorferi (B. burgdorferi)*, strain B31 (clone 5A1). The bacterial preparation used for extraction of genomic DNA was produced by culture of BEI Resources NR-13251 lot 70021457. Genomic DNA was extracted using proprietary technology and is provided in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0).

Lot: 70050993 **Manufacturing Date: 05APR2022**

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1440 base pairs)	≥ 99% sequence identity to *B. burgdorferi,* strain B31 (GenBank: AE000783.1)	99.9% sequence identity to *B. burgdorferi,* strain B31 (GenBank: AE000783.1)
Agarose Gel Electrophoresis	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
Concentration by PicoGreen® Measurement	0.7 to 1.5 µg in 25 to 100 µL per vial	1 µg in 28 µL per vial (35 µg per mL)
Amount per Vial	0.7 to 1.5 µg	1 µg
Functional Activity by PCR Amplification 16S ribosomal RNA gene	~ 1500 base pair amplicon	~ 1500 base pair amplicon
OD_{260}/OD_{280} Ratio	1.7 to 2.1	1.8
Bacterial Inactivation[1] 10% of total yield inoculated in Revised Barbour-Stoenner-Kelly medium incubated for 14 days at 30°C in a microaerophilic atmosphere	No viable bacteria detected	No viable bacteria detected

[1]An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-positive and Gram-negative bacteria.

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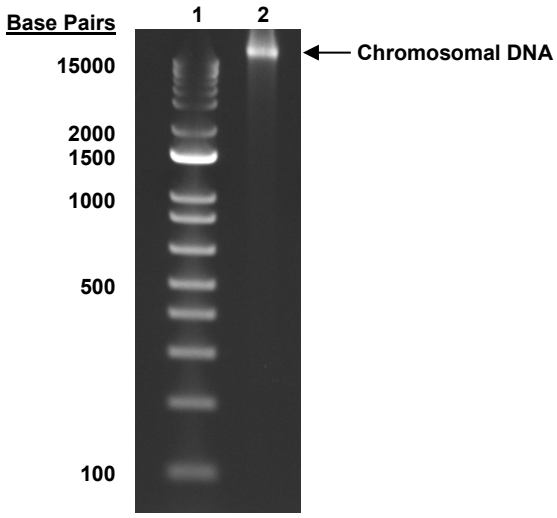
Figure 1: Agarose Gel Electrophoresis



Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder
Lane 2: 200 ng of NR-56541

/Sonia Bjorum Brower/
Sonia Bjorum Brower 08 JUN 2022
Lead Technical Writer or designee, ATCC Federal Solutions

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