

Genomic DNA from *Trypanosoma cruzi*, Strain TcVT-1 (axenic epimastigote)

Catalog No. NR-51625

Product Description:

Genomic DNA was extracted from *Trypanosoma cruzi* (*T. cruzi*), strain TcVT-1 (epimastigote stage), which was isolated from the blood of a five-year-old female English Cocker Spaniel with Chagas' disease in October 2012 in Lynchburg, Virginia, USA. NR-51625 was extracted from BEI Resources NR-46428 lot 70022534 using proprietary technology. NR-51625 is provided in 10 mM Tris-HCl, 1 mM EDTA, pH 7.5.

Lot: 70051962

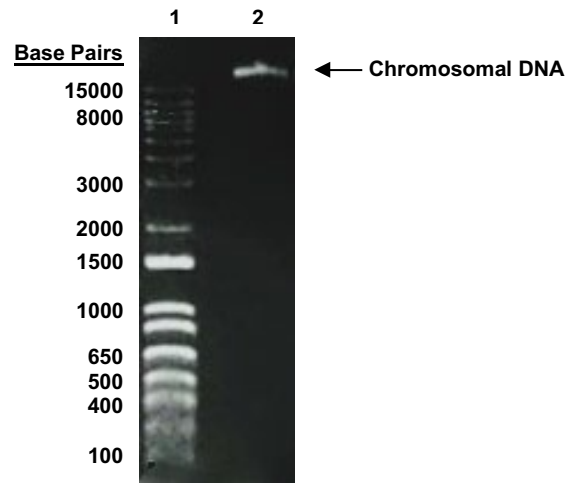
Manufacturing Date: 23MAR2022

TEST	SPECIFICATIONS	RESULTS
Agarose Gel Electrophoresis	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
Concentration by PicoGreen® Measurement	0.2 to 3.5 µg in 20 to 200 µL/vial	3 µg in 54 µL/vial (58 µg/mL)
Amount per Vial	0.2 to 3.5 µg	3 µg
Genotypic Analysis Sequencing of putative C-5 sterol desaturase gene (<i>TcSC5D</i>) (~ 770 bases)	≥ 99% sequence identity to <i>T. cruzi</i> Discrete Typing Unit (DTU) <i>T. cruzi</i> I (Tcl) (GenBank: JN050567.1)	100% sequence identity to <i>T. cruzi</i> DTU Tcl (GenBank: JN050567.1) ¹
Functional Activity by PCR Amplification <i>TcSC5D</i> gene ²	~ 800 base pair amplicon	~ 800 base pair amplicon
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.1	1.9
Protozoan Inactivation 10% of total yield inoculated in Liver Infusion Tryptose (LIT) medium supplemented with 10% heat-inactivated fetal bovine serum and incubated for 14 days at 25°C in an aerobic atmosphere	No viable organisms detected	No viable organisms detected

¹The descriptive concept of "Discrete Typing Unit" (DTU) designates a set of stocks that are genetically more similar to each other than to any other stock, and are identifiable by common genetic, molecular or immunological markers named "tags" [Tibayrenc, M. "Genetic Epidemiology of Parasitic Protozoa and Other Infectious Agents: The Need for an Integrated Approach." *Int. J. Parasitol.* 28 (1998): 85-104. PubMed: 9504337.]

²PCR was performed as described in Cosentino, R. O. and F. Agüero. "A Simple Strain Typing Assay for *Trypanosoma cruzi*: Discrimination of Major Evolutionary Lineages from a Single Amplification Product." *PLoS Negl. Trop. Dis.* 6 (2012): e1777. PubMed: 22860154.

Figure 1: Agarose Gel Electrophoresis



Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder
 Lane 2: ~ 200 ng of NR-51625

/Sonia Bjorum Brower/
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26 FEB 2024

Technical Manager or designee, ATCC Federal Solutions

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