

***Trypanosoma cruzi*, Strain Brazil (+*luc*) (axenic epimastigote)**

**Catalog No. NR-46429**

**Product Description:**

*Trypanosoma cruzi* (*T. cruzi*), strain Brazil (+*luc*) is a luciferase-expressing transgenic clone derived from the Brazil strain, which was isolated from a human patient in Brazil. NR-46429 consists of the epimastigote stage, which was established by BEI Resources from the trypomastigote form over multiple passages in culture. NR-46429 was produced by cultivation of BEI Resources seed lot 62415820 for 4 days at 25°C in an aerobic atmosphere in Liver Infusion Tryptose (LIT) medium supplemented with 10% heat-inactivated fetal bovine serum (HIFBS) to produce this lot.

**Lot: 70066694**

**Manufacturing Date: 27FEB2024**

TEST	SPECIFICATIONS	RESULTS
<b>Cellular Morphology<sup>1</sup></b> 4 days at 25°C in an aerobic atmosphere with 5% CO <sub>2</sub> in LIT supplemented with 10% HIFBS	Report results	Ovoid and refractile; in singles and clumps (Figure 1)
<b>Genotypic Analysis<sup>2</sup></b> Sequencing of 18S ribosomal RNA (rRNA) gene (~ 1650 base pairs) Sequencing of putative C-5 sterol desaturase gene ( <i>TcSC5D</i> ) (~ 790 base pairs)	Consistent with <i>T. cruzi</i>  ≥ 99% sequence identity to <i>T. cruzi</i> Discrete Typing Unit (DTU) <i>T. cruzi</i> I (Tcl)	Consistent with <i>T. cruzi</i>  99.6% sequence identity to <i>T. cruzi</i> DTU Tci <sup>3</sup>
<b>Functional Activity of Luciferase Gene<sup>1,4</sup></b>	Positive	Positive
<b>Viable Cell Count by Hemacytometry<sup>2</sup></b>	> 10 <sup>6</sup> cells/mL	8.5 × 10 <sup>7</sup> cells/mL
<b>Viability<sup>1</sup></b> 4 days at 37°C in an aerobic atmosphere with 5% CO <sub>2</sub> in LIT supplemented with 10% HIFBS	Growth	Growth
<b>Sterility (14-day incubation)<sup>1</sup></b> Trypticase soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic Sheep blood agar, 37°C, aerobic Sheep blood agar, 37°C, anaerobic Thioglycollate broth, 37°C, anaerobic	No growth No growth No growth No growth No growth	No growth No growth No growth No growth No growth

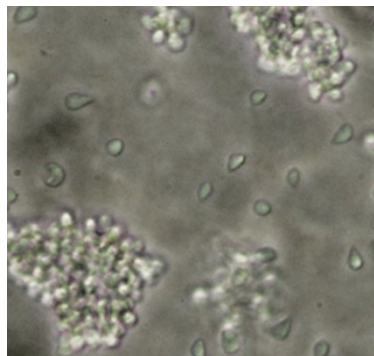
<sup>1</sup>Testing completed on vial, post-freeze material.

<sup>2</sup>Testing completed on bulk material prior to vialing and freezing.

<sup>3</sup>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.

<sup>4</sup>Luciferase activity was determined using the Luciferase Assay System (Promega E1500). Parasites were lysed and incubated with luciferase assay reagent. Luciferase activity was measured using a luminometer with a bioluminescence emission spectra of ~ 450 nm.

**Figure 1: Cellular Morphology**



/Sonia Bjorum Brower/

Sonia Bjorum Brower

29 JUL 2025

Technical Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

