

Trypanosoma cruzi, Strain CL-Luc::Neon/Cas9

Catalog No. NR-59633

Product Description:

Trypanosoma cruzi (*T. cruzi*), strain CL-Luc::Neon/Cas9 is a transgenic reporter strain that expresses both red-shifted luciferase and green fluorescent protein (mNeonGreen). NR-59633 was produced by cultivation of the deposited material in Liver Infusion Tryptose (LIT) medium supplemented with 10% heat-inactivated fetal bovine serum (HIFBS) and 10 µg/mL hemin for 7 days at 25°C in an aerobic atmosphere.

Lot: 70066647

Manufacturing Date: 05MAR2024

TEST	SPECIFICATIONS	RESULTS
Cellular Morphology¹ 5 days at 25°C in an aerobic atmosphere in LIT medium supplemented with 10% HIFBS and 10 µg/mL hemin	Report results	Motile, refractile and elongated (Figure 1A)
Genotypic Analysis² Sequencing of 18S ribosomal RNA (rRNA) gene (~ 1170 base pairs) Sequencing of putative C-5 sterol desaturase gene (<i>TcSC5D</i>) (~ 790 base pairs)	Consistent with <i>T. cruzi</i> Consistent with <i>T. cruzi</i> Discrete Typing Unit (DTU) <i>T. cruzi</i> VI (TcVI)	Consistent with <i>T. cruzi</i> Consistent with <i>T. cruzi</i> Discrete Typing Unit (DTU) <i>T. cruzi</i> VI (TcVI) ³
Phenotypic Analysis¹ Luciferase activity ⁴ mNeonGreen expression ⁵	Positive Positive	Positive Positive (Figure 1B)
Viable Cell Count by Hemacytometry²	> 10 ⁶ cells/mL	6.8 × 10 ⁷ cells/mL
Viability¹ 5 days at 25°C in an aerobic atmosphere in LIT medium supplemented with 10% HIFBS and 10 µg/mL hemin	Growth	Growth
Sterility (14-day incubation)¹ 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

¹Testing completed on vialled, post-freeze material.

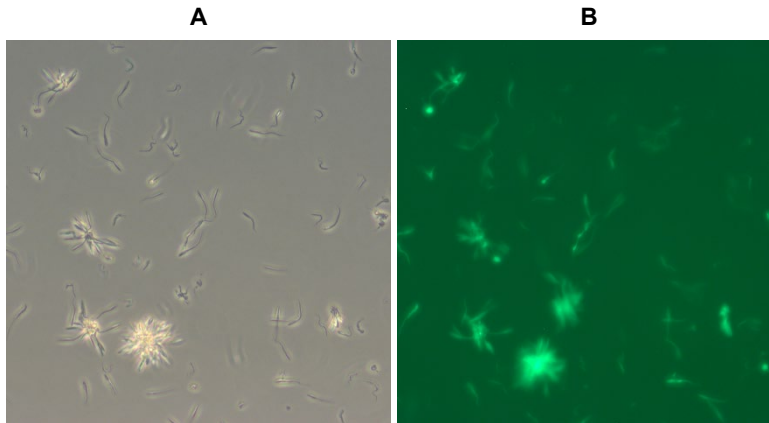
²Testing completed on bulk material prior to vialing and freezing.

³Cosentino, 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.

⁴Luciferase 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 ~ 612 nm.

⁵GFP expression was examined by fluorescence microscopy.

Figure 1: Cellular Morphology



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