

Trypanosoma cruzi, Strain Brazil (+luc)

Catalog No. NR-40347

Product Description:

Trypanosoma cruzi (*T. cruzi*), strain Brazil (+luc) is a transgenic clone derived from the Brazil strain, which was isolated from a human patient in Brazil. Strain Brazil (+luc) was deposited to BEI Resources as a luciferase-expressing strain in the trypomastigote stage of the parasite's life cycle. Luciferase was introduced via the pTREX-GFP plasmid where *luc* replaced GFP. NR-40347 was produced by cultivation of the deposited material in BS-C-1 monkey kidney epithelial cells (ATCC® CCL-26™) with EMEM (ATCC® 30-2003™) adjusted to contain 10% heat-inactivated fetal bovine serum. The culture was propagated in 95% air, 5% CO₂ for 8 days at 37°C, until emergence of trypomastigotes from host cells was observed.

Lot: 61447903

Manufacturing Date: 26DEC2012

TEST	SPECIFICATIONS	RESULTS
Genotyping Sequencing of 18S ribosomal RNA gene (~ 1520 base pairs)	Consistent with <i>T. cruzi</i>	Consistent with <i>T. cruzi</i> ¹
Functional Activity by PCR Amplification 18S ribosomal RNA gene Luciferase gene	~ 2200 base pair amplicon ~ 1600 base pair amplicon	~ 2200 base pair amplicon ~ 1600 base pair amplicon
Phenotypic Analysis Luciferase activity ²	Positive	Positive
Viable Cell Count by Hemacytometry (pre-freeze)³	> 10 ⁶ cells per mL	3.5 x 10 ⁷ cells per mL
Viability (post-freeze)⁴	Growth	Growth
Sterility (21-day incubation) Harpo's HTYE broth, 37°C and 26°C, aerobic ⁵ Trypticase soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic Brain heart infusion, 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 No growth No growth No growth No growth
Mycoplasma Contamination DNA Detection by PCR	None detected	None detected

¹Also consistent with other *Trypanosoma* species

²Luciferase 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 ~ 560 nm.

³Only trypomastigote-stage parasites were counted.

⁴Viable cells and signs of infection were seen after 3 days under cultivation conditions.

⁵Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

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