

Leishmania major, Strain LV39 Clone 5 (+*luc*)

Catalog No. NR-50181

Product Description:

Leishmania major (*L. major*), strain LV39c5 (+*luc*) is a transgenic clone derived from strain LV39 (MRHO/SU/59/P), which was originally isolated in 1959 from a gerbil in southern Russia. NR-50181 lot 61233613 was produced by cultivation of the deposited material in Modified Medium 199 (M199) with Hanks' salts supplemented with 10% heat-inactivated fetal bovine serum (HIFBS) and 10 µg/mL hemin for 4 days at 25°C in an aerobic atmosphere to produce this lot. Note: Culture color changes from bright red to orange during growth of this organism.

Lot: 64233613

Manufacturing Date: 06MAY2016

TEST	SPECIFICATIONS	RESULTS
Cell Morphology¹ 1 day at 25°C in an aerobic atmosphere in M199 with Hanks' salts supplemented with 10% HIFBS and 10 µg/mL hemin	Report results	Elongated, refractile, motile
Genotypic Analysis² Sequencing of internal transcribed spacer (ITS) 1, 5.8S ribosomal RNA gene, ITS 2 (~ 1120 base pairs)	≥ 99% sequence identity to <i>L. major</i> , strain LV39c5 (GenBank: AODR01000399.1)	100% sequence identity to <i>L. major</i> , strain LV39c5 (GenBank: AODR01000399.1)
Presence of Luciferase Gene by PCR Amplification²	~ 1600 base pair amplicon	~ 1600 base pair amplicon
Functional Activity of Luciferase Gene^{2,3}	Positive	Positive
Viable Cell Count by Hemacytometry²	> 10 ⁶ cells per mL	3.4 x 10 ⁸ cells/mL
Viability¹ 1 day at 25°C in an aerobic atmosphere in M199 with Hanks' salts supplemented with 10% HIFBS and 10 µg/mL hemin	Growth	Growth
Sterility (21-day incubation)¹ Harpo's HTYE broth, 37°C and 26°C, aerobic ⁴ Trypticase soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic DMEM with 10% FBS, 37°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

¹Testing completed on vial, post-freeze material

²Testing completed on bulk material prior to vialing and freezing

³Luciferase activity was determined using the *Renilla* Luciferase Assay System (Promega E2810). Parasites were lysed and incubated with luciferase assay reagent. Luciferase activity was measured using a luminometer with a bioluminescence emission spectra of 480 nm. [Roy, G., et al. "Episomal and Stable Expression of the Luciferase Reporter Gene for Quantifying *Leishmania* spp. Infections in Macrophages and in Animal Models." *Mol. Biochem. Parasitol.* 110 (2000): 195-206. PubMed: 11071276.]

⁴Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

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