b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-50176

Leishmania tropica, Strain LRC-L590 (+*luc*)

Catalog No. NR-50176

Product Description:

Leishmania tropica (L. tropica), strain LRC-L590 (+*luc*) is a transgenic clone derived from strain LRC-L590 (MHOM/IL/1990/P283). Strain LRC-L590 (MHOM/IL/1990/P283), also referred to as MHOM/IL/1990/LRC-590 and L590, was originally isolated in 1990 from an 11-year-old male with cutaneous leishmaniasis in Kfar Adumim, Judean Desert, Israel. NR-50176 lot 70002272 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.

Lot: 70002272 **Manufacturing Date: 07FEB2017**

TEST	SPECIFICATIONS	RESULTS
Cell Morphology[1] 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 Analysis[2] Sequencing of internal transcribed spacer (ITS) 1, 5.8S ribosomal RNA gene, ITS 2 (~ 910 base pairs)	Consistent with *L. tropica*	Consistent with *L. tropica*
Functional Activity by PCR Amplification[3] ITS 1, 5.8S rRNA gene, ITS 2	~ 1200 base pair amplicon	~ 1200 base pair amplicon
Functional Activity of Luciferase Gene[2,3]	Positive	Positive
Viable Cell Count by Hemacytometry[2]	> 10^6 cells per mL	3.48 x 10^8 cells/mL
Viability[1] 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]	No growth	No growth
Trypticase soy broth, 37°C and 26°C, aerobic	No growth	No growth
Sabouraud broth, 37°C and 26°C, aerobic	No growth	No growth
DMEM with 10% FBS, 37°C, aerobic	No growth	No growth
Sheep blood agar, 37°C, aerobic	No growth	No growth
Sheep blood agar, 37°C, anaerobic	No growth	No growth
Thioglycollate broth, 37°C, anaerobic	No growth	No growth

[1]Testing completed on vialed, post-freeze material
[2]Testing completed on bulk material prior to vialing and freezing
[3]Luciferase 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.]
[4]Atlas, Ronald M. Handbook of Microbiological Media. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

/Heather Couch/
Heather Couch 16 JUL 2020
Program Manager or designee, ATCC Federal Solutions

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BEI Resources
www.beiresources.org
E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898