

***Leishmania donovani*, Strain HOM/IN/83/AG83**

Catalog No. NR-50602

Product Description:

Leishmania donovani (*L. donovani*), strain HOM/IN/83/AG83 was isolated in 1985 from a human with visceral leishmaniasis in West Bengal, India. The deposited material was inoculated into Medium 199 (M199) with Hanks' salts, supplemented with 10% heat-inactivated fetal bovine serum (HIFBS) and 10 µg/mL hemin and grown for 8 days at 25°C in an aerobic atmosphere, and the resulting subculture was vialled and frozen. NR-50602 was produced by inoculation of the frozen subculture into M199 with Hanks' salts, supplemented with 10% HIFBS and 10 µg/mL hemin for 4 days at 25°C in an aerobic atmosphere to produce this lot.

Lot: 70030921

Manufacturing Date: 15NOV2019

TEST	SPECIFICATIONS	RESULTS
Cell Morphology¹ 2 days at 25°C in an aerobic atmosphere in M199 with Hanks' salts, supplemented with 10% HIFBS and 10 µg/mL hemin	Report results	Elongated, motile and refractile; rosettes visible
Genotypic Analysis² Sequencing of internal transcribed spacer (ITS) 1, 5.8S ribosomal RNA gene, ITS 2 (~ 1050 base pairs) Sequencing of N-acetylglucosamine-1-phosphate transferase gene (<i>nagt</i>) (~ 1320 base pairs)	≥ 99% sequence identity to <i>L. donovani</i> , strain MHOM/IN/00/DEVI (GenBank: AJ634376.1) ≥ 99% sequence identity to <i>L. donovani nagt</i> gene (GenBank: DQ836150.1)	99.9% sequence identity to <i>L. donovani</i> , strain MHOM/IN/00/DEVI (GenBank: AJ634376.1) ³ 100% sequence identity to <i>L. donovani nagt</i> gene (GenBank: DQ836150.1) ⁴
Viable Cell Count by Hemacytometry²	> 10 ⁶ cells per mL	1.4 × 10 ⁸ cells per mL
Viability¹ 2 days 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 ⁵ 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 vialled, post-freeze material

²Testing completed on bulk material prior to vialing and freezing

³Also consistent with *L. infantum*, a member of the *L. donovani* complex consisting of three species, *donovani*, *infantum* and *chagasi*, which are not differentiated by this assay [Mauricio, I. L., et al. "Genomic Diversity in the *Leishmania donovani* Complex." *Parasitology* 119 (1999): 237-246. PubMed: 10503249].

⁴*L. donovani* is differentiated from *L. infantum* based on a 2-nucleotide difference in the *nagt* gene [Waki, K., et al. "Transmembrane Molecules for Phylogenetic Analyses of Pathogenic Protists: *Leishmania*-Specific Informative Sites in Hydrophilic Loops of Trans-Endoplasmic Reticulum N-Acetylglucosamine-1-Phosphate Transferase." *Eukaryot. Cell* 6 (2007): 198-210. PubMed: 17142569].

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

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