

***Leishmania donovani*, Strain 1S (MHOM/SD/62/1S)**

Catalog No. NR-48821

This reagent is the tangible property of the U.S. Government.

Product Description:

Leishmania donovani (*L. donovani*), strain 1S (MHOM/SD/62/1S) was isolated in 1962 from a patient with visceral leishmaniasis in Sudan. NR-48821 was produced by inoculation of BEI Resources seed lot 62990855 into Medium 199 (M199) supplemented with 10% HIFBS and 10 µg/mL hemin and grown for 3 days at 25°C in an aerobic atmosphere to produce this lot.

Lot: 70054290

Manufacturing Date: 25JUL2022

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TEST	SPECIFICATIONS	RESULTS
Cellular Morphology¹ 1 day at 25°C in an aerobic atmosphere in M199 supplemented with 10% HIFBS and 10 µg/mL hemin	Report results	Elongated and rounded forms, refractile; rosettes visible
Genotypic Analysis² Sequencing of internal transcribed spacer (ITS) 1, 5.8S ribosomal RNA gene, ITS 2 (~ 980 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 BPK282A1 (GenBank: FR799614.1) ≥ 99% sequence identity to <i>L. donovani nagt</i> (GenBank: DQ836150.1)	100% sequence identity to <i>L. donovani</i> , strain BPK282A1 (GenBank: FR799614.1) ³ 100% sequence identity to <i>L. donovani nagt</i> (GenBank: DQ836150.1) ⁴
Viable Cell Count by Hemacytometry²	> 10 ⁶ cells per mL	1.82 × 10 ⁸ cells per mL
Viability¹ 1 day at 25°C in an aerobic atmosphere in M199 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 vial, 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.].

⁴Waki, 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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29 MAR 2023

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