

***Trypanosoma brucei* subsp. *brucei*, Strain Lister 427 VSG 221 (bloodstream form)**

Catalog No. NR-42009

Product Description:

Trypanosoma brucei (*T. brucei*) subsp. *brucei*, strain Lister 427 VSG 221 is a single-antigen isolate of strain Lister 427. *T. brucei*, subsp. *brucei*, strain Lister 427 is a virulent lab strain isolated in 1960 from a sheep in Uganda and transferred to the Lister Institute in London in 1961. The parent strain Lister 427 is a monomorphic, non-human-infective strain that is unable to complete development in the insect vector. NR-42009 was produced by inoculation of BEI Resources seed lot 61708723 into modified HMI-9 medium supplemented with 10% heat-inactivated fetal bovine serum (HIFBS). After a series of passages, the culture was propagated for 1 day at 37°C in an aerobic atmosphere with 5% CO₂ to produce this lot.

Lot: 70038191

Manufacturing Date: 10SEP2020

TEST	SPECIFICATIONS	RESULTS
Cell Morphology¹ 2 days at 37°C in an aerobic atmosphere with 5% CO ₂ in modified HMI-9 medium supplemented with 10% HIFBS	Report results	Elongated, motile, and refractive
Genotypic Analysis² Sequencing of 18S ribosomal RNA gene (~ 1710 base pairs) ³ Sequencing of internal transcribed spacer (ITS) 1, 5.8S rRNA gene, ITS 2 (~ 1210 base pairs) ⁵	≥ 99% sequence identity to <i>T. brucei</i> , strain Lister 427 (GenBank: UFQF01000036.1) ≥ 99% sequence identity to <i>T. brucei</i> , strain Lister 427 (GenBank: UFQF01000036.1)	99.7% sequence identity to <i>T. brucei</i> , strain Lister 427 (GenBank: UFQF01000036.1) ⁴ 100% sequence identity to <i>T. brucei</i> , strain Lister 427 (GenBank: UFQF01000036.1)
Viable Cell Count by Hemacytometry¹	> 10 ⁶ cells per mL	2 × 10 ⁷ cells per mL
Viability¹ 2 days at 37°C in an aerobic atmosphere with 10% HIFBS in modified HMI-9 medium supplemented with 10% HIFBS	Growth	Growth
Sterility (21-day incubation)¹ Harpo's HTYE broth, 37°C and 26°C, aerobic ⁶ 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.

³PCR was performed using a modification of the procedure described in Medlin, L., et al. "The Characterization of Enzymatically Amplified Eukaryotic 16S-Like rRNA-Coding Regions." *Gene* 71 (1988): 491-499. PubMed: 3224833.

⁴Also consistent with *T. evansi* and/or *T. equiperdum*, which are putative subspecies of *T. brucei* (Lun, Z. R., et al. "*Trypanosoma brucei*: Two Steps to Spread Out from Africa." *Trends Parasitol.* 26 (2010): 424-427. PubMed: 20561822.)

⁵PCR was performed as described in Agbo, E. C., et al. "Measure of Molecular Diversity within the *Trypanosoma brucei* Subspecies *Trypanosoma brucei brucei* and *Trypanosoma brucei gambiense* as Revealed by Genotypic Characterization." *Exp Parasitol.* 99 (2001): 123-131. PubMed: 11846522.

⁶Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

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