b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-50441

Babesia sp., MO1 *(in vitro)*

Catalog No. NR-50441

Product Description: *Babesia* sp., MO1 was isolated in 2003 from the blood of a wild Eastern cottontail rabbit (*Sylvilagus floridanus*) on Nantucket Island, Massachusetts, USA, and adapted to continuous *in vitro* culture in human erythrocytes.

Lot[1]: 70002062 **Manufacturing Date: 13FEB2017**

TEST	SPECIFICATIONS	RESULTS
Cellular Morphology[2]	Report results	Pleomorphic rings and tetrads
Genotyping[3] Sequencing of 18S ribosomal RNA (rRNA) gene (~ 1570 base pairs)	≥ 99% sequence identity to *Babesia* sp., strain MO1 (GenBank: AY048113.1)	99.9% sequence identity to *Babesia* sp., strain MO1 (GenBank: AY048113.1)[4]
Functional Activity by PCR Amplification[3,5] 18S rRNA gene	~ 930 base pair amplicon	~ 930 base pair amplicon
Level of Parasitemia (pre-freeze)[3,6]	Report results	6.8%
Viability[2,7]	Growth	Growth
Sterility (21-day incubation)[2] Harpo's HTYE broth[8], 37°C and 26°C, aerobic Tryptic 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
Mycoplasma Contamination DNA Detection by PCR	None detected	None detected

[1]NR-50441 was produced by cultivation of the deposited material in human erythrocytes with *Babesia* Growth Medium (HL-1™ Chemically Defined, Serum-Free Medium (Lonza 77201), adjusted to contain 20% Human Serum Type A Positive, 1% HB 101® supplement (Irvine Scientific® T151), 2 mM L-glutamine, 200 µM hypoxanthine, 32 µM thymidine, 100 IU/mL penicillin, 100 µg/mL streptomycin and 0.25 µg/mL amphotericin B and 100 µg/mL gentamicin) for 14 days at 35°C in an aerobic atmosphere with 5% CO_2 until the first peak of parasitemia was reached.
[2]Testing completed on vialed, post-freeze material.
[3]Testing completed on bulk material prior to vialing and freezing.
[4]Also consistent with other *Babesia* species
[5]Primer sequences and conditions for PCR are available upon request.
[6]Parasitemia was determined after 14 days of infection by microscopic counts of Giemsa-stained blood smears.
[7]Viability of the material following cryopreservation was determined by inoculation in human erythrocytes in *Babesia* Growth Medium and examination of parasitemia every 1 to 3 days for 13 days post-infection (5.9% parasitemia).
[8]Atlas, Ronald M. Handbook of Microbiological Media. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

Date: 20 SEP 2017 **Signature:**

BEI Authentication or designee

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