

***Babesia hegotelforum* sp. nov. (in vitro) (Deposited as *Babesia* sp., Strain MO1)**
Catalog No. NR-50441
Product Description:

Babesia hegotelforum sp. nov. 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. Previously referred to as *Babesia* sp., strain MO1, NR-50441 has been reclassified as *Babesia hegotelforum* sp. nov. The designation on the vial label refers to the old nomenclature. 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% CO₂ until the first peak of parasitemia was reached.

Lot: 70002062
Manufacturing Date: 13FEB2017

TEST	SPECIFICATIONS	RESULTS
Cellular Morphology ¹	Report results	Pleomorphic rings and tetrads
Genotypic Analysis ² Sequencing of 18S ribosomal RNA (rRNA) gene (~ 1570 base pairs)	≥ 99% sequence identity to <i>Babesia</i> sp., strain MO1 (GenBank: AY048113.1)	99.9% sequence identity to <i>Babesia</i> sp., strain MO1 (GenBank: AY048113.1) ³
Functional Activity by PCR Amplification ^{2,4} 18S rRNA gene	~ 930 base pair amplicon	~ 930 base pair amplicon
Level of Parasitemia (pre-freeze) ^{2,5}	Report results	6.8%
Viability ^{1,6}	Growth	Growth
Sterility (21-day incubation) ¹ Harpo's HTYE broth, 37°C and 26°C, aerobic ⁷ 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

¹Testing completed on vial, post-freeze material.

²Testing completed on bulk material prior to vialing and freezing.

³Also consistent with other *Babesia* species

⁴Primer sequences and conditions for PCR are available upon request.

⁵Parasitemia was determined after 14 days of infection by microscopic counts of Giemsa-stained blood smears.

⁶Viability 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).

⁷Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

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