Certificate of Analysis for NR-50441

Babesia sp., Strain 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. NR-50441 was produced by cultivation of BEI Resources seed lot 70002063 in human Type O erythrocytes with DMEM/F12 Medium supplemented with 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. After a series of passages, the culture was propagated in human Type O erythrocytes at 37°C in an atmosphere of 90% N_2, 5% CO_2, 5% O_2 and monitored for parasitemia for 7 days.

Lot: 70053368 **Manufacturing Date: 01JUL2022**

TEST	SPECIFICATIONS	RESULTS
Cell Morphology[1] 13 days of infection by examination of Giemsa-stained blood smears	Report results	Infection of red blood cells visible; tetrad form observed
Genotypic Analysis[2] Sequencing of internal transcribed spacer (ITS) 1, 5.8S rRNA gene, ITS 2 (~ 790 base pairs)	Consistent with *Babesia* sp. ≥ 99% sequence identity to *Babesia* sp., strain MO1 (NR-50441 lot 70002062)	Consistent with *Babesia* sp. 100% sequence identity to *Babesia* sp., strain MO1 (NR-50441 lot 70002062)
Level of Parasitemia (pre-freeze)[2] 7 days of infection by microscopic counts of Giemsa-stained blood smears	Report results	3.9%
Viability[1,3]	Growth	Growth
Sterility (21-day incubation)[1]		
Harpo's HTYE broth, 37°C and 26°C, aerobic[4]	No growth	No growth
Trypticase soy broth, 37°C and 26°C, aerobic	No growth	No growth
Sabouraud broth, 37°C and 26°C, aerobic	No growth	No growth
DMEM with 10% FBS, 37°C, aerobic	No growth	No growth
Sheep blood agar, 37°C, aerobic	No growth	No growth
Sheep blood agar, 37°C, anaerobic	No growth	No growth
Thioglycollate broth, 37°C, anaerobic	No growth	No growth
Mycoplasma Contamination[1] DNA Detection by PCR	None detected	None detected

[1]Testing completed on vialed, post-freeze material.
[2]Testing completed on bulk material prior to vialing and freezing.
[3]Viability of the material following cryopreservation was determined by cultivation in human Type O erythrocytes with DMEM/F12 Medium supplemented with 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 at 37°C in an atmosphere of 93% N_2, 5% CO_2, 2% O_2 and examination of parasitemia every 2 to 4 days for 13 days post-infection (6.4% parasitemia).
[4]Atlas, Ronald M. Handbook of Microbiological Media. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

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Technical Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

Support Provided by NIAID

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