

Borrelia miyamotoi, Strain HT31

Catalog No. NR-51675

Product Description:

Borrelia miyamotoi (*B. miyamotoi*), strain HT31 was isolated from the abdomen of an unfed female *Ixodes persulcatus* tick collected from vegetation between 1990 and 1992 in Shiretoko, Hokkaido, Japan. NR-51675 was produced by inoculation of BEI seed lot 70032900 into Revised Barbour-Stoenner-Kelly broth and grown for 11 days at 33°C in a microaerophilic atmosphere (6-16% O₂ and 2-10% CO₂; BD GasPak™ EZ Campy). Material from the initial passage was added to Modified Kelly-Pettenkofer broth supplemented with 10% fetal bovine serum and Revised Barbour-Stoenner-Kelly broth, and each inoculated broth was grown for 7 days at 33°C in a microaerophilic atmosphere. The growth from each second passage broth was pooled in Revised Barbour-Stoenner-Kelly broth to produce this lot.

Lot: 70063251

Manufacturing Date: 09OCT2023

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology 15 days at 33°C in a microaerophilic atmosphere in Revised Barbour-Stoenner-Kelly broth Motility (wet mount)	Spirochete Report results	Spirochete Motile
Genotypic Analysis Sequencing of 16S ribosomal RNA (rRNA) gene (1430 base pairs)	≥ 99% sequence identity to <i>B. miyamotoi</i> , strain HT31 (GenBank: AB904793.1)	100% sequence identity to <i>B. miyamotoi</i> , strain HT31 (GenBank: AB904793.1)
Purity 15 days at 33°C in a microaerophilic atmosphere in Tryptic Soy agar with 5% defibrinated sheep blood 15 days at 37°C in an aerobic atmosphere with 5% CO ₂ in Tryptic Soy agar with 5% defibrinated	Growth consistent with colony morphology or no growth No growth	No growth No growth
Viability (post-freeze) Visual observation 15 days at 33°C in a microaerophilic atmosphere in Revised Barbour-Stoenner-Kelly broth LIVE/DEAD® BacLight™ Bacterial Viability	Growth Green fluorescence visible	Growth Green fluorescence visible (Figure 1) ¹

¹Determined after 15 days at 33°C in a microaerophilic atmosphere in Revised Barbour-Stoenner-Kelly broth with LIVE/DEAD® BacLight™ Bacterial Viability Kit, 1000× magnification (Invitrogen™ L7007). Cells with a compromised membrane that are dead or dying will stain red, while cells with an intact membrane will stain green.

Figure 1: LIVE/DEAD® BacLight™ Bacterial Viability



Certificate of Analysis for NR-51675

/Sonia Bjorum Brower/

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29 MAY 2024

Technical Manager or designee, ATCC Federal Solutions

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