

***Borrelia recurrentis*, Strain PBek**

Catalog No. NR-51672

Product Description:

Borrelia recurrentis (*B. recurrentis*), strain PBek was isolated in Germany in 2004 from the blood of a human with louse-borne relapsing fever returning from Ethiopia. NR-51672 was produced by inoculation of BEI seed lot 70027335 into Revised Barbour-Stoenner-Kelly broth and grown for 11 days at 33°C in a microaerophilic atmosphere (6% to 16% O₂ and 2% to 10% CO₂; BD GasPak™ EZ Campy). Quality control testing was completed under propagation conditions unless otherwise noted.

Lot: 70063263

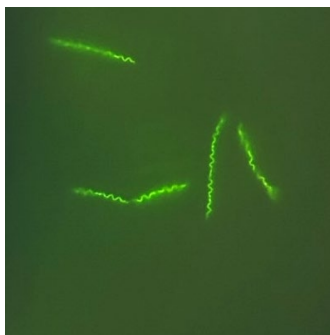
Manufacturing Date: 02OCT2023

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology 12 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. recurrentis</i> , strain A1 (GenBank: CP000993.1)	99.9% sequence identity to <i>B. recurrentis</i> , strain A1 (GenBank: CP000993.1) ¹
Purity 12 days at 33°C in a microaerophilic atmosphere in Tryptic Soy agar with 5% defibrinated sheep blood 12 days at 37°C in an aerobic atmosphere with 5% CO ₂ in Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with colony morphology or no growth No growth	No growth No growth
Viability (post-freeze) Visual observation 12 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) ²

¹Also consistent with other *Borrelia* species. *B. recurrentis* and *B. duttonii* cannot be differentiated by sequencing of the 16S rRNA gene (Marosevic, D., et al. "First Insights in the Variability of *Borrelia recurrentis* Genomes." *PLoS Negl. Trop. Dis.* 11 (2017): e0005865. PubMed: 28902847.).

²Determined after 12 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



/Sonia Bjorum Brower/

Sonia Bjorum Brower

29 MAY 2024

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.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

