

Certificate of Analysis for NR-13252

Borrelia burgdorferi, Strain B31 (Clone 5A2)

Catalog No. NR-13252

Product Description:

Borrelia burgdorferi (B. burgdorferi), strain B31 (clone 5A2) was derived from the original B31 strain. Clone 5A2 lacks linear plasmids lp5, lp28-1 and lp56 and circular plasmid cp9 of the parent B31 strain. NR-13252 was produced by the inoculation of BEI Resources seed lot 59535352 into Revised Barbour-Stoenner-Kelly broth and grown for 10 days at 32°C in a microaerophilic atmosphere to produce this lot.

Lot: 70053505 Manufacturing Date: 24JUN2022

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology 10 days at 32°C in a microaerophilic atmosphere in Revised Barbour-Stoenner-Kelly broth	Spirochete	Spirochete
Motility (wet mount)	Report results	Motile
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1420 base pairs)	≥ 99% sequence identity to <i>B. burgdorferi</i> type strain (GenBank: AE000783)	99.9% sequence identity to *B. burgdorferi type strain (GenBank: AE000783)1
Purity 10 days at 32°C in a microaerophilic atmosphere (6 to 16% O₂ and 2 to 10% CO₂; BD GasPak™ EZ Campy) on Tryptic Soy agar with 5% defibrinated sheep blood		No growth
10 days at 37°C in an aerobic atmosphere with 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood		No growth
Viability		
Visual observation	Growth	Growth
LIVE/DEAD [®] <i>Bac</i> Light™ Bacterial Viability	Green fluorescence visible	Green fluorescence visible (Figure 1) ²

¹Also consistent with other *Borrelia* species

Figure 1: LIVE/DEAD® BacLight™ Bacterial Viability



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²Determined after 10 days at 32°C in a microaerophilic atmosphere in Revised Barbour-Stoenner-Kelly medium with LIVE/DEAD® *Bac*Light™ Bacterial Viability Kit, 1000x magnification (Invitrogen™ L34856). Cells with a compromised membrane that are dead or dying will stain red, while cells with an intact membrane will stain green.



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/Sonia Bjorum Brower/
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Technical Manager or designee, ATCC Federal Solutions

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