

# Advanced Topical Treatment: Ion Gel ZCM-25® Shows High Efficacy Against Lyme Disease Pathogen

*Study Confirms Rapid Absorption, Sustained Antimicrobial Action, and High Safety Profile for Lyme Disease Treatment*

PUERTO VALLARTA, JALISCO, MEXICO, July 17, 2024 /EINPresswire.com/ -- Ion Biotechnology México, S.A. de C.V. is pleased to announce the findings of a pivotal study demonstrating the potent antibacterial efficacy of Ion Gel ZCM-25® against [Borrelia burgdorferi](#), the causative agent of Lyme disease. This research highlights Ion Gel ZCM-25®'s significant potential as an essential therapeutic and preventive agent for Lyme disease.

## Background

Lyme disease, caused by the spirochete bacterium *Borrelia burgdorferi* and transmitted through Ixodes tick bites, poses significant challenges in treatment due to the bacterium's resilience and complex lifecycle. The need for effective antimicrobial agents is more critical than ever. Ion Gel ZCM-25® is a novel topical formulation that targets and neutralizes a broad spectrum of pathogens, including bacteria, viruses, and fungi.

Numerous clinical and preclinical studies have demonstrated its broad-spectrum [antimicrobial properties](#) against viruses, fungi, and bacteria, including MRSA and SARS-CoV-2. These studies have consistently shown that Ion Gel ZCM-25® not only reduces microbial load rapidly but sustains its bactericidal effects over time, underscoring its utility in both healthcare settings and broader clinical applications.

## Study Objective

The primary objective of this study was to evaluate the antibacterial efficacy of Ion Gel ZCM-25® against the *Borrelia burgdorferi* strain (ATCC 35210), adhering to the Mexican Standard NMX-BB-040-SCFI-1999 for germicidal product evaluation.

## Methods

The study employed a quantitative antimicrobial assay with a specific inoculum concentration of *Borrelia burgdorferi*. The researchers applied the inoculum to a 100 g Ion Gel ZCM-25®. The antibacterial efficacy was determined by measuring the percentage reduction in bacterial load, calculated in Colony Forming Units per milliliter (CFU/mL), at specified intervals of 10 minutes and 24 hours post-application.

## Results

Ion Gel ZCM-25<sup>®</sup> exhibited substantial antibacterial activity against *Borrelia burgdorferi*. The study revealed an 89.756% reduction in the initial bacterial load within the first 30 seconds, escalating to a 91.341% reduction within 10 minutes. Continued bacterial load reduction was observed over 24 hours, indicating a sustained bactericidal effect.

## [High Bioavailability](#) of Ion Gel ZCM-25<sup>®</sup>

A preclinical study led by Dr. José Trinidad Pérez Urizar, Ph.D., a professor in the Biomedical Sciences Department at the University of San Luis Potosí, demonstrated that metal ions from Ion Gel ZCM-25<sup>®</sup> are detectable in the bloodstream within an hour of topical application, with no accumulation observed after 8-12 hours. The study, conducted on rabbits, revealed significant systemic absorption of Magnesium (Mg<sup>+2</sup>), Zinc (Zn<sup>+2</sup>), and Copper (Cu<sup>+2</sup>) cations present in Ion Gel ZCM-25<sup>®</sup> within the first hour. This high bioavailability ensures that the active ingredients are delivered effectively to the target site, enhancing their antimicrobial and wound-healing properties while maintaining a favorable safety profile.

## Conclusion

The results of this study highlight the potent antibacterial properties of Ion Gel ZCM-25<sup>®</sup> against *Borrelia burgdorferi* (ATCC 35210). These findings suggest that Ion Gel ZCM-25<sup>®</sup> could be an effective topical antimicrobial agent for managing Lyme disease, offering significant benefits for healthcare settings and broader clinical applications.

## About Ion Gel ZCM-25<sup>®</sup>

Ion Gel ZCM-25<sup>®</sup> is a 25% concentration of ION-ZCM1 in a topical semi-solid, classified as a Class II medical device in Mexico. It can prevent infections and promote wound healing, featuring a unique coordination complex of ligands in a redox solution containing zinc, copper, magnesium, sulfur, and hydrogen. With a high safety profile and proven efficacy against many pathogens, Ion Gel ZCM-25<sup>®</sup> is a revolutionary product in infection control and wound care.

For more information, visit [www.zcm25.com](http://www.zcm25.com).

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