

A Comparative Analysis of Anti-Inflammatory Therapeutic Activity of *Lactobacillus sakei* Probio-65 in TNBS-induced Colitis Mice Model

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Abstract

Mesalamine (5'ASA) is a synthetic aminosalicylate drug that is currently available for treatment of ulcerative colitis (UC), a form of inflammatory bowel disease (IBD). However, 5'ASA has limited efficacy for milder-to-moderate forms of disease and also suffers with adverse side-effect profile such as, headache, diarrhea, bloating, nausea and hypersensitivity. *Lactobacillus sakei* Probio-65 from Korean kimchi is a potent probiotic strain known for modulation of inflammatory immune disorders including atopic dermatitis. Therefore, the aim of current study was to examine if oral administration of ethanol extract from a probiotic strain *Lactobacillus sakei* Probio-65 (EE1) would promote mucosal healing and reduce tissue inflammation in experimental TNBS-induced colitis mouse model. The examination of clinical and histopathological traits revealed that EE1 and 5'ASA were effective and potent in reducing the inflammatory signatures of UC to similar extent. Conclusively, this study provides the basis for the therapeutic and healing potential of EE1 against UC.

Biography

PARK Yong-Ha, Ph. D., is professor in the Department of Biotechnology at Yeungnam University and founder of proBionic Institute, Korea. He has over 250 scientific publications and 50 patents, mostly in the fields of probiotics and microbial ecology. He is a vice president of Korean Society of Lactic Acid Bacteria and member of International Executive Board of the Asian Federation of Societies for Lactic Acid Bacteria. His laboratory discovered new functional probiotics strains from the natural ecosystem including the Kimchi. Dr. Park received a Ph.D. in Microbiology from University of Tokyo in 1987. He joined the Korea Research Institute of Bioscience and Biotechnology (KRIBB), KAIST, as a director of National Biological Resource Center from 1987 till 2006.