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The effect of intestinal immunity with lactic acid bacteria isolated from Vietnamese feces and Korean traditional food kimchi

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This study was to investigate the improvement of intestinal immunity with lactic acid bacteria isolated from Vietnamese feces and Korean traditional food kimchi. The strains used in the experiments were selected by their low β -glucuronidase activity and tryptophanase activity, resistance to acid and bile acid tolerance. The antioxidant activity was analyzed by DPPH, ABTS and FRAP assay from selected strains. Among the selected strains, *L. acidophilus* V4, *L. plantarum* V7 and *L. paracasei* DK121 strains were showed to have good antioxidant activity. The adhesion test was conducted by mixing the selected *L. acidophilus* V4 and *L. plantarum* V7 and *L. paracasei* DK121. As a results of measuring the mucin attachment performance of mixed strains were showed excellent binding ability over 10⁶CFU/g to the mucous layer. These strains were promoted the production of cytokines (TNF- α , IL-1, IL-6) that could enhance immunity in RAW264.7 cells. Immune enhancement effect of selected mixed strains was estimated 94.6 \pm 3.97, 6.7 \pm 0.07 and 13.97 \pm 0.54% and 5 in TNF- α , IL-1 α and IL-6, respectively. In conclusion, *L. salivarius* V1, V2, and *L. acidophilus* V4 have probiotic activity that can be applied to the development of health related products.

Biography

Cheol-Hyun Kim has done his Ph.D. in Dairy science & microbiology from the Seoul National University, Seoul, South Korea and worked for 13 years at Seoul dairy cooperative R&D center. He has been involved in basic research on dairy chemistry, microbiology, microencapsulation and development of functional fermented milk products. After 2007, He became a professor as animal resources science in Dankook University, Cheon-an, South Korea and has been conduction joint research on the small and medium dairy companies. And also teaches dairy science, food chemistry, milk processing technology and quality controls and assurance of animal resources. Curretly, he is an academic chairman at Korean society of dairy science and technology and Korean society for lactic acid bacteria.

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