

Identification and Characterization of Lactic Acid Bacteria Isolated from the Gut of Shrimp

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A probiotic is a feed with live microorganisms, which beneficially affects the host animal by improving its intestinal microbial balance. Lactic acid bacteria are the major component of the microflora and may play significant roles in the gut of hosts. In this study, we were isolated and identified lactic acid bacteria from the gut of shrimp. Whole gut of the shrimp was homogenized, plated onto BCP plate agar and the colonies were screened according to the general procedures for isolation of lactic acid bacteria. In order to identify the isolates, 16S rDNA sequences and enzymatic characteristics were analyzed. The enzymatic characteristics were tested with the agar plate or API-ZIM kit. As the results, we validated the profile of lactic acid bacteria in the gut of shrimp. *Lactobacillus* sp., *Enterococcus* sp., *Lactococcus* sp., and *Pediococcus* sp. were isolated from the gut of shrimp and clustered major groups in the phylogenetic tree of isolated strains. These lactic acid bacteria isolated from the gut of their host will be the good sources of feed additives for application of probiotics. Then, we are investigating the functions of probiotics with isolated lactic acid bacteria to use the feed additives for the cultures of shrimp.