

Characterization of *Enterococcus hirae* isolated from the intestine of Seabass (*Lates Calcarifer*) as a new potential probiotic against pathogenic vibrios

ABSTRACT

In this study, we aimed to isolate, identify and characterize lactic acid bacteria (LAB) from the intestine of juvenile seabass (*Lates calcarifer*) as a new potential probiotic. Four strains of LABs were isolated from the intestines of ten healthy seabass juveniles. In the *in vitro* screening process using spot lawn assay, one isolate labeled as LAB3 showed inhibitory activity against *Vibrio harveyi* (ATCC 35,084). Strain LAB3 was determined to belong to the gram positive bacteria group with cocci shape and was identified as *Enterococcus hirae* using 16S rDNA analysis. This bacterium was able to grow at pH ranging from pH 2 to 10 with the best growth at pH 7. This strain was also able to grow at 0-4% NaCl after 24 h incubation and grew best at 1.5% NaCl. *Enterococcus hirae* strain LAB3 of the present study is worthy to be further characterized as a potential probiotic for use in seabass culture.