SUBSTRATES BREAK DOWN AND AGARASE ACTIVITY OF *Vibrio* spp AS PROBIOTICS CANDIDATE FOR ABALON

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ABSTRACT

The use of Vibrio as probiotics for fish and shrimp are well known. The purpose of this study was to evaluate the ability of the substrate degradation and agarase activity of some strains of Vibrio as a candidate probiotic for abalone. The ability of agar, starch and casein break down is measured method colorimetricby using UV-VIS spectrophotometer. Agarase activity test is done by calculating the reducing sugars by DNS method. The results showed that isolates Abn1.2 have the highest capability of starch hydrolysis, namely 89.20 and 99.16%, while the lowest degree of starch hydrolysis is Alg3.1 amounted to 76.05 and 90.20% at 48 hours of incubation. All three isolates showed a high capacity to hydrolyze casein. The highest degree of hydrolysis of carbohydrates in *Gracilaria* consistently demonstrated by a combination of isolates Abn1.2 and Alg3.1, ie 52.90% and 59.32% in the amount of inoculum 10^8 and 10^{10} cfu / mL with a 48-hour incubation period. The highest agarase activity by mixed culture Alg3.1-Abn1.2 ie 0593 nkat / mL at hour 32. Thus, the mixed culture strains of *Vibrio natriegens* Alg3.1 and Abn1.2 potential as a candidate probiotic for abalone

Keywords: *Vibrio*, probiotik, agarase, abalon.