

Identifikasi, Uji Kemampuan Hidrolisis Lemak dan Penentuan Indeks Zona Bening Asam Laktat pada Bakteri dalam Wadi Makanan Traditional Kalimantan Tengah

Identification, Lipid Hydrolysis Index and Lactic Acid Clearance Zone Index Determination of Lipolytic Bacteria and Lactic Acid Bacteria in Wadi Traditional Food of Central Kalimantan

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Abstract: *Wadi* is a sort of fermented fish product from Dayak tribe in Central Kalimantan. *Wadi* is made with the addition of lumu, sugar, and salt, and fermented for 7-10 x 24 hours. During the fermentation process, there are microflora from fish, and microflora from lumu that play a role in fermentation process. Some species of bacteria that play a role in the *wadi* fermentation process are lipolytic bacteria and Lactic Acid Bacteria (LAB). This research aims to: (1) identify the species of lipolytic bacteria and LAB that present in the *wadi*, (2) determine the lipid hydrolysis index and lactic acid clearance zone index of lipolytic bacteria and LAB that present in the *wadi*, and (3) determine the species of lipolytic bacteria and LAB which have highest ability to hydrolyze lipid and have the highest ability to produce lactic acid based on lipid hydrolysis index and lactic acid clearance zone index. The results showed that, (1) there are four species of lipolytic bacteria and LAB present in *wadi*: *Lactobacillus coryniformis*, *Lactobacillus casei*, *Nitrococcus mobilis* and *Streptococcus lactis*; (2) the four species of bacteria have different lipid hydrolysis index and lactic acid clearance zone index which are *Lactobacillus coryniformis* has a lipid hydrolysis index of 1.63 and lactic acid clearance zone index of 3.31; *Lactobacillus casei* has index of 1.94 and 3.96; *Streptococcus lactis* has index of 1.51 and 1.54 and *Nitrococcus mobilis* has index of 0.98 and 1.52; (3) *Lactobacillus casei* is a species of lipolytic bacteria and LAB which has the highest ability to hydrolyze lipid and to produce the highest lactic acid based on the lipid hydrolysis index and lactic acid clearance zone index, which are 1.94 and 3.96.

Keywords: lipolytic bacteria, LAB, lipid hydrolysis index, lactic acid clearance zone, *wadi*

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