ABSTRACT

ISOLATION AND CHARACTERIZATION OF BACTERIA PRODUCING PROTEASE FROM SHRIMP (*Mysis relicta*) PASTE

By

DEVI HANAFIARTI

The aim of this study were to isolate the bacteria that found in shrimp paste, to identify the bacteria producing protease enzyme in shrimp paste and to determine the activity of protease enzyme in shrimp paste. This research were carried out by a various steps, such as bacteria isolating, protease candidates isolating, protease activity test, and identification of selected isolates. The results showed that there are eight isolates were isolated from shrimp paste origin Labuhan Maringgai, East Lampung there are T1a2, T2b1, T2b2, T2c1, T2c2, T3b1, T3c2, and T3e1. The isolates T1a2, T2c2, T3c2 were chosen for enzyme production because they have the largest index proteolytic (IP). The protease activity test showed that the isolates T1a2 had protease activity value of 0.0068, T2c2 at 0.0010, and T3c2 at 0.0051 (Units/mL). The identification of bacteria were detemined using physiology, morphology and biochemistry method resulted that isolates T1a2 was identical with *Corynebacterium* sp, T2c2 with *Flavobacterium* sp, and T3c2 with *Actinobacillus* sp.

Key words: shrimp paste, protease bacteria