ABSTRACT

SCREENING AND IDENTIFICATION OF BACTERIA PRODUCING FIBRINOLYTIC ENZYME FROM PETIS

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Petis is one of the fermentation product which is made with marine creatures such as fish or shrimp. A fibrinolytic in some fermentation food from marine creatures were discovered. Screening of bacteria that produce fibrinolytic enzyme using six petis from different home industry. The isolation of samples was obtained from Skim Milk Agar proteolytic test and fibrin plate test. Identification of the bacteria performed with gram staining test and sequencing 16S rRNA method. The sample was diluted with NaCl 0,9% up to 10^{-7} then inoculated on the media SMA and incubated in 37ºC for 24 hours. All samples have the proteolytic activity that shown by a clear zone around the colony. There were seventeen proteolytic isolates bacteria tested fibrinolytic activity with fibrin plate then incubated in 37ºC for 24 hours. The seventeen isolates showed positive result to fibrinolytic activity with highest fibrinolytic index was P3c. Isolate bacteria P3c was identified using sequencing gene 16s rRNA. The result of identifying, the bacteria that have strong fibrinolytic activity was *Bacillus flexus*.

Keywords: petis, screening, identification, fibrinolytic enzyme, *Bacillus flexus*.