

## ABSTRACT

### SCREENING AND IDENTIFICATION OF FIBRINOLYTIC ENZYME PRODUCING BACTERIA FROM TAUCO

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Tauco is one kind of traditional fermented food from Indonesia. Tauco is processed from soybean paste that have salty taste and commonly have yellow and black colour. Generally, tauco also used as spices or seasonings in various daily dishes. The aim of the study is to find and identified the bacteria that produced fibrinolytic enzymes in tauco. The sample used in this research is tauco from six different manufacturers. There are two tests that have to do in this study, that are proteolytic test of Agar Milk Scale and fibrin plate test. Both of that tests is used to gained the bacteria producing fibrinolytic enzymes. Bacteria is identified macroscopically, gram staining and 16S rRNA sequencing. In the proteolytic test the sample was diluted with 0.9% up to  $10^{-7}$  NaCl then inoculated on Agar Milk Skim medium, incubated at 37°C for 24 hours. All of samples have proteolytic activity that shown by the formation of clear zones around bacterial colonies. A total of 17 isolates of proteolytic bacteria were incubated at 37°C for 24 hours and then used for the fibrin plate test. All of isolate proteolytic bacteria produces fibrinolytic activity with the largest fibrinolytic index in TC4a isolate of 3,46. Furthermore, TC4a bacteria were genotypically identified by sequencing the 16S rRNA gene. According the result of tauco identification, is found that the bacteria that strongly produced fibrinolytic enzymes in tauco sample TC4a is similar with *Bacillus cereus TC4a*

**Keywords:** Fibrinolytic enzyme, Fibrinolytic activity, Tauco, Screening, Identification, 16s rRNA, *Bacillus cereus TC4a*