

THE PROFILE PROTEIN OF TUNA FISH BASED ON SDS-PAGE BEFORE AND AFTER FUMIGATION USING COCONUT SHELL

Muh. Affan Esman¹ , Ana Hidayati Mukaromah² , Stelis Norma Ethica³

1. Study Program of Medical Laboratory Faculty of Nursing and Health Science University of Muhammadiyah Semarang.
2. Biotechnology Laboratory University of Gajah Mada Yogyakarta.

ABSTRACT

Fish is a potential source of animal protein, but has one downside that easy to rot. To avoid spoilage can be done by preservation of fumigation. In this research was conducted fumigation to analyze the influence of fumigation to fish protein, the sample used in this research is a type of tuna fish as 1 sample fish, then the fish cut into 4 pieces, sample 1 as control and 3 pieces done by fumigation each with variation of time 1, 2, and 3 hours. The research method used Elektrophoresis Gel (SDS-PAGE) method. On the tuna sample before fumigation, the control sample had a total of 19 protein bands, where there were 12 major bands and minor band 7. The result of fumigation of sample 1 which was fumigating for 1 hour, had a total of 12 protein bands consisting of 6 major bands and minor band 6. Samples 2 with 2 hours of fumigation treatment consisted of 11 proteins with 6 major band and 5 minor band. . Samples 3 with 3 hours of fumigation treatment it has a lot of decrease of 5 protein band consisting of 2 major band and minor band 3. So It can be concluded that those who still have many major protein bands are control samples. This result is caused because the control sample does not get fumigation treatment. From all samples of the research. From all the research sample, there was a decrease in the number of protein bands in the sample that already fumigated using coconut shell. So this research proves that the longer the fumigation the higher levels of protein denaturation on tuna fish.

Keyword : Fumigation, Tuna Fish, Profile Protein