

EFFECTS OF THE RATIO BETWEEN ALCALASE AND PAPAIN ENZYME TO THE PROCESS OF SHARK CARTILAGE (*Carcharhinus dussumieri*) HYDROLYSIS

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Summary

In this paper, we present the results of the study on the effect of the ratio between enzyme alcalase and papain on the content of soluble protein, peptide, Naa, N_{NH_3} , and chondroitin sulphate formed in hydrolysing shark cartilage (*Carcharhinus dussumieri*) by alcalase-papain mixture. The results showed that the suitable ratio of alcalase/papain in the mixture of alcalase-papain enzyme for shark cartilage hydrolysis is 60/40. After 10 hours of shark cartilage hydrolysis by alcalase-papain mixture at enzyme concentration of 0.2%, temperature of 50⁰C, natural pH (6.8), sample weight of 2 kg and the addition of 2 liter water ratio, the hydrolyzate has the content of protein, peptide, Naa, chondroitin sulphate and N_{NH_3} higher than 6.54 times, 3.26 times, 7.91 times, 78.17 times and 1.25 times higher than the original.

Keywords: *Mixture of alcalase-papain enzyme, protein, peptide, Naa, N_{NH_3} , chodroitin sulphate, shark cartilage, hydrolysis.*