

**PROFIL PROTEIN IKAN BANDENG (*Chanos-chanos*) YANG DIRENDAM
JERUK NIPIS (*Citrus aurantifolia*)
BERBASIS SDS-PAGE**

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ABSTRAK

Bandeng merupakan salah satu sumber protein hewani yang potensial karena mudah dicerna namun mudah membusuk dan memiliki bau amis. Jeruk nipis memiliki aroma khas untuk menetralkan bau amis, mengandung asam sitrat, asam askorbat, dan asam amino (triptofan dan lisin) yang dapat menyebabkan protein terdenaturasi. Tujuan penelitian ini untuk melihat profil protein bandeng tanpa perendaman larutan jeruk nipis dan yang direndam larutan jeruk nipis dengan variasi konsentrasi 10 %, 15 %, dan 20 %, masing-masing konsentrasi dengan waktu perendaman 5, 10, dan 15 menit. Profil protein ikan bandeng dianalisis menggunakan metode SDS-PAGE 12 %. Hasil penelitian menunjukkan pita protein kontrol terdapat 22 pita protein (8 pita mayor dan 14 pita minor), setelah perendaman dengan konsentrasi 10 % selama 5, dan 10 menit menunjukkan 20 pita protein (7 pita mayor dan 13 pita minor), pada waktu 15 menit menunjukkan 19 pita protein (6 pita mayor dan 13 pita minor). Perendaman dengan konsentrasi 15 % selama 5, 10, dan 15 menit berturut-turut menunjukkan 20 pita protein (7 pita mayor dan 13 pita minor), 19 pita protein (6 pita mayor dan 13 pita minor), dan 18 pita protein (6 pita mayor dan 12 pita minor). Perendaman dengan konsentrasi 20 % selama 5, dan 10 menit terdapat 19 pita protein (6 pita mayor dan 13 pita minor), waktu perendaman 15 menit terdapat 17 pita protein (6 pita mayor dan 11 pita minor). Semakin tinggi konsentrasi larutan jeruk nipis dan waktu perendaman maka makin terdenaturasi protein pada ikan bandeng. Berdasarkan hasil tersebut menunjukkan bahwa asam sitrat, asam askorbat dan asam amino (lisin dan triptofan) dalam jeruk nipis mampu memecah ikatan peptida pada protein ikan bandeng sehingga sub unit protein yang dihasilkan berubah.

Kata kunci : Ikan bandeng, jeruk nipis, profil protein, SDS-PAGE.

**PROTEIN PROFILE OF BANDENG FISH (*Chanos-chanos*)
SOAKED BY LIME (*Citrus aurantifolia*)
BASED ON SDS-PAGE**

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ABSTRACT

Milkfish is one of potential animal protein because it is easy to digest but easily decomposes and has a fishy smell. Lime is one of the fruits that has a distinctive aroma to neutralize fishy smell, contain citric acid, ascorbic acid, and amino acids (tryptophan and lysine) which can cause denatured proteins. The purpose of this research was to see the protein profile of milkfish without soaking the lime solution and soaking the lime solution with a variation of concentration is 10%, 15%, and 20% and the variation of soaking time 5, 10, and 15 minutes. The protein profile of milkfish was analyzed using the SDS-PAGE 12% method. The results showed that the protein control bands consist of 22 protein bands (8 major bands and 14 minor bands), after soaking with concentration 10% for 5 and 10 minutes, showing 20 protein bands (7 major bands and 13 minor bands), for 15 minutes there are 19 protein bands (6 major bands and 13 minor bands). Soaking with concentration 15% for 5, 10, and 15 minutes in a row showing 20 protein bands (7 major bands and 13 minor bands), 19 protein bands (6 major bands and 13 minor bands), and 18 protein bands (6 major bands and 12 minor bands). Soaking with concentration 20% for 5 and 10 minutes, there are 19 protein bands (6 major bands and 13 minor bands), for 15 minutes it showing 17 protein bands (6 major bands and 11 minor bands). The higher the concentration of lime and soaking time of lime solution, the more protein is denatured in milkfish. Based on the results showed that citric acid, ascorbic acid and amino acids (tryptophan and lysine) in lime can break peptide bonds in fish so that the resulting protein subunits change.

Kata kunci : Milkfish, lime, protein profile, SDS-PAGE