**Application and production of trevally fish peptone for bacteria’s growth media**

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**ABSTRACT**

Peptones are defined as protein hydrolysates that are soluble in water and not heat coagulable.The aims of this study were to: 1) evaluate the potencial of trevally fish as source of peptone, 2) optimization of the use of selected enzymes, 3) characterization of the trevally fish peptone, and 4) comparison of the quality of this peptone with commercial peptone as bacteria’s growth media. Based on proximate analysis showed that trevally fish is potencial as source of fish peptone with protein content 15.47%. The hydrolysis process is carried out in post rigor phase with added 0.26% (w/v) papain enzyme for 6 hours. Fish peptone had high protein level of 74.17% (wet basis). It contains the essential amino acids such [histidine](http://www.nutriology.com/histamine.html), [isoleucine](http://www.nutriology.com/isoleucine.html), [leucine](http://www.nutriology.com/leucine.html), [lysine](http://www.nutriology.com/lysine.html), [methionine](http://www.nutriology.com/methionine.html), [phenylalanine](http://www.nutriology.com/phenylalanine.html), [threonine](http://www.nutriology.com/threonine.html), [valine](http://www.nutriology.com/valine.html), and [arginine](http://www.nutriology.com/arginine.html). Characteristics of fish peptone, showed that the solubility of fish peptone in post rigor phase was 96.74%, with total nitrogen 11.86%, α-amino nitrogen 1.07 g/100 g, α-amino nitrogen per total nitrogen 9.02; and 0.41% saline. Higher values of optical density of fish peptone as compared to commercial peptone indicates that the fish peptone has higher capacity to support the growth of bacteria in simple media.

***Keywords****: peptone, post rigor, enzyme, hydrolisis, amino acids*