Partial Characterization of a Digestive Protease from Pyloric Caeca of *Eugerres brasilianus*


Laboratório de Enzimologia (LABENZ), Departamento de Bioquímica, Universidade Federal de Pernambuco (UFPE)

*Eugerres brasilianus*, estuarine fish present in the Brazilian tropical regions, is one species of commercial value with potential for cultivation in captivity. However, the lack of knowledge about the its digestive physiology can compromise the success of its production. Thus, aimed to evaluate trypsin activities of the pyloric caeca of *E. brasilianus*. For this purpose, enzymatic assays were carried out using enzymatic extract of pyloric caeca and BApNA as specific substrate. The trypsin activity was measured at different pH ranging from 4.0 to 11.0. Optimum temperature and thermal stability of the protease were evaluated at 25°C to 80°C. The trypsin activity at 25°C and pH 8.0 was 0.108±0.004 mU.mg⁻¹. Maximum activity was observed at pH 10.0 and 55°C. However, the trypsin proved to be sensitive to temperatures above 55°C, being inactivated after its incubation for 30 minutes at 60°C.Trypsin has a key role in the digestion of protein derived from food and the results obtained in this work provide important information to understanding the digestive physiology and development of appropriate management in the process of farming of *E. brasilianus*.

Keywords: *Eugerres brasilianus*, protease, trypsin

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