CHARACTERIZATION OF DIGESTIVE AMYLASES FROM MARINE SHRIMP *Litopenaeus schmitti*

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The characterization of digestive carbohydrases is important information for the understanding of *Litopenaeus schmitti* digestive physiology. In this work we showed some properties of amylases from marine shrimp *L. schmitti*. The amount of protein in the crude extract was 16.31 mg/mL. The especific activity found was 21.4 U/mg. The highest activity was obtained at pH 8.0, whereas, the optimum temperature was found at 45ºC. Amylase-like enzymes were stable at same temperature for 30 minutes. The amylolytic activity was not inhibit by SDS. However, high inhibition by Cd^{2+}, Cu^{2+}, Hg^{2+} and Zn^{2+} was observed. These enzymes showed strong activation by Ca^{2+} and Ba^{2+}. The SDS-PAGE presented five bands ranging from 16 to 27 kDa. Using zymogram, five bands showed amylolytic activity when incubated in starch solution for 60 minutes at 37°C. In conclusion, other studies about amylases from *L. schmitti* could provide relevant informations for a better knowledge of feeding behavior of this species when subjected to farming conditions.

Keywords: Carbohydrases characterization, Digestive physiology, *Litopenaeus schmitti*.

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