

GLICOSIDASES AND SULFATASES FROM CRUSTACEOUS UCIDES CORDATUS AND LITOPENAEUS SCHIMITTI

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Glicosidases and sulfatases are enzymes involved in the degradation of Glycosaminoglycans, carbohydrates present in all organisms with tissue organization. The objective of this work was to identify these enzymes in the muscle of the crab *Ucides cordatus* and in the head and muscle of shrimp *Litopenaeus schimitti*. In the crude extract of crab was identified the presence of the enzymes β -D -galactosaminidase, α -L-fucosidase, β -D-xylosidase, β -D-mannosidase, β -D-N-acetylglucosaminidase and α -D-glucosaminidase. In the crude extract of muscle and head from shrimp were identified activities on all the substrates used, β -D-galactosaminidase and β -D-N-acetylglucosaminidase presented high specific activities. The enzymes were fractionated with ammonium sulfate in F-I (0-30%), F-II (30-50%) and F-III (50-80%) fractions. In the muscle from crab the precipitated enzymes in F-I presented high specific activities. Were observed still sulfatase and β -D-glucosaminidase activities in this fraction. The results utilizing the fractions from shrimp showed high activities in F-III. The α -L-fucopiranosidase and α -D-glucosaminidase enzymes presented major specific activities in this fraction. In the F-II fraction the β -D-galactosaminidase and β -D-N-acetylglucosaminidase enzymes were more actives. These results indicate the existence of catabolic activity on GAGs in these marine invertebrates.

Keywords : Glycosaminoglycans, Glicosidases, sulfatases and Invertebrates.