Amylase Activity of Microorganisms Associated with the Marine Mollusk *Aplysia sp*.

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Introduction: Amylases are important enzymes employed in starch processing industry, brewing and sugar production, designing of textiles industries and in detergent manufacturing processes. The main advantage of using microorganisms for their production is the economical bulk production capacity. Microorganisms associated with marine animals constitutes a promising enzyme source and many substances isolated from *Aplysia sp*. are in fact strongly correlated with the microbiota present in this mollusk species. **Objective:** This work aimed the isolation and characterization of microorganisms from the mollusk *Aplysia sp*. as well as to determine their amylase activity. **Materials and Methods:** For bacterial isolation, a homogenate of *Aplysia sp*. tissues were incubated in Luria Bertani medium and each bacterial colony was sowed until reach total isolation of the strains. Morphological characterization was carried out according to the Gram's method. Amylase activity was assayed incubating the strains in starch rich medium for 48 hours, at 37°C and degradation halos were observed by adding Lugol's reagent.Results and **Discussion:** Ten strains were isolated (named Ap2 to Ap11) and all of them were gram-positive bacilli. Ap2 and Ap10 were able to produce amylase, showing a high halo/colony ratio. Ap6, Ap7, Ap9 and Ap11 showed to be lightly amylolytic while the remaining others did not show activity. **Conclusions:** These results are compatible with the literature, demonstrating the presence of microorganisms associated to mollusks and highlights those organisms as a potential source of amylases, demonstrating the necessity of further studies to elucidate the complete bacterial enzymatic profile of these species.

Keywords: microorganisms, enzimes, amylases