DNA Isolation Using the CTAB Method from Species of Sea anemone *Anemonia sp. PG*

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Abstract
Sea anemones (order Actiniaria) are groups of marine aquatic that most its species are habitant in tropical reefs. This study was conducted in October 2013. The purpose of this study was extractiing of DNA for to do molecular studies from sea anemone of Anemonia sp. PG specie from Persian Gulf and checking the Problems resulting from the extraction of DND. In this research the isolation of DNA performed using the CTAB method from the sea anemone of specie Anemonia sp. PG that had associated with the changes in the standard extraction protocol and its optimization and finally, large amounts of purified DNA and quality and free from any contamination obtained, such as polysaccharides (Muccopolysaccharides), which can be used for a variety of molecular analysis. The results of agarose gel electrophoresis, spectrophotometer and partial sequencing of the genome was represented the good quality of extracted DNA from the sea anemone Anemonia sp. PG. The advantages of this method are its simplicity, low cost, avoiding the symbiotic genome extraction of anemone and also removal of mucopolysaccharides contaminants that many of standard biochemical methods for the isolation of nucleic acids in some marine organisms, such as members of hydrozoans are not effective due to these contaminations.

Keywords: Persian Gulf, Anemonia sp. PG, DNA Extracted, CTAB.