BIOCHEMICAL STUDIES OF NATIVE AND RECOMBINANT MYOGLOBINS IN MOLLUSCS OF *BIOMPHALARIA* GENUS

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Myoglobin is a haemoprotein contributing to intracellular oxygen storage and transcellular facilitated diffusion of oxygen. Myoglobin is able to bind NO, because this it could be a scavenger of NO in the heart e skeletal muscle working possibly for the establishing of parasites as *Trypanosoma cruzi* in organisms. Due to these and other importants hyphotesis, the biochemical properties of these proteins should be studied. Our group have discovered that native myoglobins of molluscs *Biomphalaria straminea* and *B. tenagophila* are coded by nucleotide sequences with 456 base pairs. The nucleotide sequence, primary sequence and isoeletric point are very similar between them. The amino acid sequencing by Edman degradation showed these proteins are blocked in N-terminal by a chemical group about 42 Da. The recombinant myoglobins of *Biomphalaria glabrata* and *B. tenagophila* was cloned and expressed in bacterial system and purified by ion exchange and affinity chromatography. Pure recombinant proteins were bind with prostectic group hemin, and this binding was analysed. These recombinant proteins posses a N-terminal tail of extra amino acids, and it presence is being studed by microcalorimetry.

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