IDENTIFICATION, SEQUENCING AND EXPRESSION ANALYSIS OF PRESENILIN GENE FROM *SCHISTOSOMA MANSONI*

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Schistosoma mansoni is the only trematode sexually dimorphic. During its development, this parasite undergoes extensive body remodeling accompanied by metabolic adaptations within an invertebrate host, an aquatic environment and a vertebrate host. In the different life cycle stages of *S. mansoni*, proteases are expressed and have an important role in the migration, growth, survival and transmission of different stages of the schistosome life-cycle in the vertebrate host. Presenilin is part of the gamma-secretase complex that has a key role in both Alzheimer disease (AD) and regulated intramembrane proteolysis (RIP) signaling, which cleaves substrates such as β- amyloid protein precursor (βAPP), Notch and CD44. In this study, we have identified and sequenced presenilin gene from *S. mansoni* and compared it with other organisms. Our data showed that presenilin from *S. mansoni* is highly homologous to the other organisms and showed a constitutive RNA expression. Taken together, these results will contribute in potential target for immunotherapy and chemotherapy against *S. mansoni* and may help to understand the mechanisms involved in the parasite's development.
Key Words: Presenilin, *S. mansoni,* protease

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