

Characterization of an *Echinococcus granulosus* 14-3-3 e isoform and identification of its interaction partners

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*Echinococcus granulosus* is a parasite platyhelminth of the Cestoda class. Its larval stage develops in the viscera of domestic ungulate and human hosts, causing cystic hydatid disease, a zoonosis hyperendemic in the Southern Cone of America, including Southern Brazil. The 14-3-3 proteins are a family of highly conserved eukaryotic regulatory molecules, which are able to interact with more than 200 different proteins in different cell contexts, regulating complex biological functions. Five *E. granulosus* 14-3-3 proteins were identified, 3 of the ? isoform and 2 of e isoform. They may be involved in host-parasite interactions, contributing for the establishment and growth of the pathogenic larval form (hydatid cyst). This study aims to determine the expression pattern of the *E. granulosus* 14-3-3 e1 isoform (Eg14-3-3.e1) and characterize its repertoire of protein ligands. Eg14-3-3.e1 specific primers were designed to amplify its coding sequence, and the amplified products were cloned and expressed in *Escherichia coli* as a glutathione Stransferase fusion. Recombinant Eg14-3-3.e1 is being used for rabbit immunization both to confirm its immunogenicity and to produce an isoform-specific anti-serum. This anti-serum will be used in immunohistochemistry to determine the Eg14-3-3.e1 expression pattern in different parasite tissues. An affinity column with immobilized recombinant Eg14-3-3.e1 will be used to recover specific ligands from *E. granulosus* protein extracts. Identification of recovered ligands will be carried out by mass spectrometry. (CNPq)

Key words: cystic hydatid disease, 14-3-3 proteins, protein interaction, host-parasite interactions.