Co-expression of the *Echinococcus granulosus* AgB8/2 and AgB8/3 Recombinant Subunits in *E. coli*.

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The larval stage of *Echinococcus granulosus* is the etiologic agent of hydatidosis. Antigen B (AgB) is an immunogenic lipoprotein of 120–160 kDa composed of subunits of 8 kDa. This antigen is abundant in hydatid fluid and plays an important role in the biology of the parasite. Although it is a major component of the metacestode, little is known about the mechanisms of its oligomerization. Therefore structural studies on AgB are required to establish whether AgB is a homo or a hetero-oligomer. In this work, our group investigated the possible hetero-oligomerization of the AgB8/2 and AgB8/3 recombinant subunits through co-expression experiments. We have isolated the *E. granulosus* *EgAgB8/2* and *EgAgB8/3* cDNA and amplified the sequences by PCR using specific primers. The PCR products of both sequences have been cloned in the expression vector (pCDF-Duet). The cloning has been confirmed by sequencing. The recombinant proteins rAgB8/2 and rAgB8/3 expressed in *Escherichia coli* are polyhistidine-tagged. The possible interaction of the subunits will be confirmed by Western blot experiments using subunit-specific monoclonal antibodies available in our laboratory. Previous results have shown that recombinant AgB subunits are able to self-associate in solution to form homo-oligomers, presenting similar properties to native AgB, making the use of recombinants proteins for structural studies of AgB an appropriated strategy. However, it will be important to investigate the possible hetero-oligomerization of AgB subunits.

Key words: Antigen B, Co-expression, *Echinococcus granulosus*

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