

Western Blotting with Antibiotin-Streptavidin in the Identification of Specific Groups of Proteins in Adult Worms of *Schistosoma mansoni*

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Schistosomiasis mansoni is present in several parts of the world, affecting approximately 200 millions of persons and exposing more than 600 millions to the infection. The disease causes a severe grade of morbidity and pathological changes that can result in physical incapacity or even in the patient death, if not treated in time. Groups of proteins studied and identified in the infective larva and in the adult worm of *S. mansoni* have been associated with metabolic functions, such as, gene regulation, cellular proliferation, etc. The objective of this work was the identification of proteins from adult worm of *S. mansoni* revealed by the anti-biotin peroxidase conjugate. Infected mice (*Mus musculus*) were anesthetized and submitted to perfusion with PBS, pH 7.4. The adult worms were collected, washed and homogenized in PBS. After centrifugation, 400 µg of proteins in the soluble fraction were used to hydrate IPG strip, 13 cm, pH 3-10, followed by isoelectric focusing in the Multiphor II System (GE Healthcare) and SDS-PAGE. Proteins were transferred to PDVF membrane, followed by blockage with 3% (p/v) casein, incubated with anti-biotin peroxidase conjugate and revealed with the TMB substrate. The results demonstrated the presence of biotinylated proteins in the range of pI 4 to 7 and molecular weight between 40 to 100 kDa. The identified spots in the gel were selected for MS analysis. In conclusion, the inquiry of the biotinylated proteins becomes itself enough attractive, therefore it constitute a preliminary study, about the presence of these type of proteins in the *S. mansoni*.

Key words: *Schistosoma mansoni*, biotin, biotinylated proteins.

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