

STUDIES OF THREE DYNEINS LIGHT CHAIN FROM *SCHISTOSOMA MANSONI*

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Schistosomiasis is an important parasitic disease in humans; many efforts are being done to develop a vaccine. In the transcriptome of the *S. mansoni* it was identified a family with 18 Dyneins Light Chain (DLC) homologs. Some of them were shown to be on the tegument of the adult worm, therefore exposed to the host immune system. To study the function and localization of 3 DLCs, the genes were cloned; the proteins were expressed and purified and specific antibodies were generated by mice immunization. The genes were also cloned for *in vivo* expression using attenuated salmonella as carrier, expecting adjuvancy type for Th1 immune response. The animals were immunized with purified protein or recombinant salmonellas. Immune responses were evaluated by ELISA and protective immune responses were investigated by challenge assays. DLC1 was previously studied in the laboratory shown to be highly antigenic in mice. We observed that DLC4 is also immunogenic, but antibodies against the DLCs were not observed after immunization with recombinant salmonellas. Although, the group immunized with the recombinant salmonella – DLC1 showed a significant lower number of worms recovered in the challenge assay. Even though, it could not be conclusive because the number of worms recovered is being low in all the experimental groups.

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