Polymorphism associated with the Schistosoma mansoni tetraspanin-2 gene.

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Abstract

A vaccine against schistosomiasis would contribute significantly to reducing the 3-70 million disability-adjusted life years lost annually to the disease. Towards this end, inoculation with the large extracellular loop (EC-2) of Schistosoma mansoni tetraspanin-2 protein (Sm-TSP-2) has proved effective in reducing worm and egg burdens in S. mansoni-infected mice. The EC-2 loop of Schistosoma japonicum TSP-2, however, has been found to be highly polymorphic, perhaps diminishing the likelihood that this antigen can be used for vaccination against this species. Here, we examine polymorphism of the EC-2 of Sm-TSP-2 in genetically unique worms derived from six individuals from Kisumu, Kenya.