Immune Responses in Mice after Immunization with Antigens from Different Stages of the Parasite Schistosoma mansoni

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Mice responses to immunization with Schistosoma mansoni antigens were investigated. Priming with cercarial antigen preparation (CAP) induced significant ($P < 0.05$) IgM, IgG, IgG2a, IgG2b, and IgA increases, while booster caused a significant IgG1 increase. A soluble worm antigen preparation (SWAP) caused significant IgG elevation. Priming with soluble egg antigen (SEA) caused significant IgM and IgG2a increases, while booster induced significant IgM, IgG and IgA increases. CAP-immunized mice sera (IMS) recognized CAP peptides ranging from 23 – 78 kDa. SWAP-IMS recognized SWAP peptides ranging from 40 – 75 kDa. SEA-IMS recognized SEA peptides ranging from 33 – 101 kDa. The cross-reactive peptides among the 3 antigens were identified. CAP caused significant increases in mesenteric lymph nodes (MLNs) CD4,8+, B lymphocytes, CD4+ thymocytes, CD8+ T and B splenocytes. SWAP priming caused significant increases in MLNs CD8+ thymocytes and B splenocytes. SWAP booster caused significant increases in MLNs CD8+ T and B lymphocytes, CD4+ thymocytes and CD4+ T and B splenocytes. SEA caused significant increase in CD4+ T cells.

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