

obtained by lesion's biopsy. The advantages of this novel tool include the speed with which the assays can be completed, the no-need of trained personnel, and the fact that it can be performed without complex and expensive laboratory equipment.

0874 - IFN- γ INDUCTION BY THE TC13TUL ANTIGEN FROM TRYPANOSOMA CRUZI IN NAÏVE BALB/C MICE

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Abstract/Resumen: Trypanosoma cruzi, the etiological agent of Chagas disease, releases factors which modulate the host immune responses, including Tc13 antigens. Regarding innate immune responses, Tc13 antigen from Tulahuén strain, Tc13Tul, has shown to induce B cell expansion and non-specific IgM production on cultures of splenocytes from naïve BALB/c mice. To obtain further information about this role, we evaluated Tc13Tul ability to induce cytokine secretion by in vitro and in vivo stimulation. In vitro Tc13Tul stimulation of splenocytes from naïve BALB/c mice induced higher IFN- γ secretion than that induced by the control protein MBP (554 ± 140 pg/ml and 35.33 ± 18.56 pg/ml, respectively). Differences in neither IL-17 nor IL-4 were detected. Tc13Tul-induced IFN- γ secretion was also observed in cultured naïve splenocytes from the LPS-resistant C3H/HeJ mouse strain. In vivo administration of Tc13Tul (or MBP as control) to naïve BALB/c mice (3 daily ip doses of 1 μ g/mouse/dose) increased non-specific IgG in sera. In addition, in vitro cultured splenocytes from Tc13Tul-inoculated mice secreted a higher basal level of non-specific IgM than controls and the in vitro Tc13Tul stimulation of these cells showed an additive effect on IgM secretion. Regarding Tc13Tul-induced IFN- γ secretion, in vitro cultured splenocytes from Tc13Tul-inoculated mice have no differences in basal levels respect to controls; however, when splenocytes were in vitro stimulated with Tc13Tul, cells from Tc13Tul-inoculated mice showed higher IFN- γ secretion than cells from MBP-inoculated mice (950 ± 265.2 pg/ml and 147.3 ± 55.48 pg/ml, respectively). Results indicate that Tc13Tul participation in the innate immune response against T. cruzi is mainly exerted in phenomena related to the evasion of the immune system, such as non-specific Ig production. In contrast, as IFN- γ is an important factor involved in T. cruzi resistance, this may be considered a Tc13Tul effect in favor to the host.

0876 - VACCINE STRATEGIES AGAINST BABESIA BIGEMINA BASED ON PRIME-BOOST IMMUNIZATIONS IN MICE WITH RECOMBINANT PROTEINS AND MODIFIED VACCINIA ANKARA VECTOR

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Abstract/Resumen: Babesia bigemina is an apicomplexan tick-borne parasite that infects RBC causing cattle morbidity and mortality in vast world areas. Vaccination with attenuated strains is effective but they have inherent disadvantages. Immunity to Babesia sp. requires both innate and adaptive responses including CD4+ T cells and neutralizing antibodies. The aim of this study was to evaluate prime-boost heterologous schemes in mice using immunogens that activate both humoral and cellular responses. Three recombinant proteins and two modified vaccinia virus Ankara (MVA) expressing a chimeric multi-antigen were obtained and evaluated as vaccines. The multi-antigen comprises

B and T cell epitopes of the B. bigemina proteins: AMA-1, RAP-1 and TRAP-1. Epitope prediction was performed by bioinformatics using the B. bigemina genome. Mice were immunized at day 0 with recombinant proteins and at day 30 with each MVA. One group received a prime of AMA-1, RAP-1 and TRAP-1 in equal amounts and 30 days after alpha-MVA (containing epitopes of AMA-1 and RAP-1) and beta-MVA (containing epitopes of TRAP-1). A second group received a prime of AMA-1 and RAP-1 and a boost of alpha-MVA. A third group was immunized with recombinant TRAP-1 and then with beta-MVA. Two control groups received either a heterologous protein and wt-MVA or vehicle only. Serum samples were collected for antibody analysis and spleen cells were obtained at day 60 for cellular and cytokines assays. Priming with a cocktail of the 3 antigens and a boost with alpha-MVA and beta-MVA induced the highest level of specific IgG antibodies and activation of IFN- γ CD4+ and CD8+ specific T cells. This group also showed a high ratio (>1) of IgG2a to IgG1 for the recombinant proteins AMA-1 and RAP-1 suggesting a strong induction of Th1-biased response. In summary, we have shown that a three-protein cocktail and both MVA used in prime-boost regimes are immunogenic for both antibodies and CD8+ /CD4+ T cells generating promising levels of B and T cell mediated immunity.

0890 - FINDING OF FASCIOLA HEPATICA IN A CAPYBARA (HYDROCHAERIS HYDROCHAERIS) IN TANDIL, PROVINCE OF BUENOS AIRES, ARGENTINA

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Abstract/Resumen: Fasciolosis is a zoonotic parasitic disease caused by Fasciola hepatica. The life cycle of this parasite is indirect, it needs a snail of the Lymnaea family as an intermediate host to complete the cycle and so the occurrence of cases is limited to the presence of these snails. Most of the studies of this parasitic disease are in domestic animals and humans. Great economic losses are generated by this disease. Wild species are known to act as reservoirs and disseminators of the disease. The south-eastern zone of the province of Buenos Aires has been described with reference to the presence of Fasciola spp. in cattle but it is not yet known whether wild herbivores living in the zone are involved in the biological cycle of this disease. Among the wild species that have been positively reported to Fasciola hepatica the capybara, (Hydrochaeris hydrochaeris) is a poorly described species. In August of the present year, in the district of Tandil (Bs. As.), a dead capybara recently run over was found. At the macroscopic inspection the liver was apparently normal. At the magnifying glass inspection of the gall bladder, characteristic yellowish eggs were found. They were photographed with the Leica microscope and it can be seen that due to their morphology, size and location they were compatible with Fasciola hepatica eggs. PCR was performed in search of the mitochondrial gene ITS1 (species indicator) confirming that the eggs found in the capybara belonged to Fasciola hepatica. This is attractive for two main reasons; first, in the area where the animal was found there are no scientific reports of this disease or the presence of the snail, which prompts us to work on a more exhaustive search for cases. And secondly, the study of wild species as transmitters of this disease is not well studied and this ends up being a complication for producers and for the population in general, so we consider that its study is very important.

0897 - IN VITRO EVALUATION OF THE ANTIMICROBIAL EFFECT OF EXTRA VIRGIN OLIVE OIL (EVOO) AND OF THE ACTIVE COMPOUNDS HYDROXYTYLSOL AND OLEUROPEIN AGAINST HELICOBACTER PYLORI.

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