International Journal Of Bilogical Sciences

IL-10-IFN-? Double Producers CD4+ T Cells Are Induced by Immunization with an Amastigote Stage Specific Derived Recombinant Protein of Trypanosoma Cruzi

Yevel Flores-Garc?a1,2, José Luis Rosales-Encina1, Abhay R. Satoskar2, Patricia Talam?s-Rohana
1. Departamento de Infect?mica y Patogénesis Molecular, Centro de Investigaci?n y de Estudios Avanzados del Instituto Politécnico Nacional, México, DF. 07360, México. 2. Department of Pathology and Microbiology, The Ohio State University, USA.

Abstarc :

During the acute phase of infection, T. cruzi replicates extensively and releases immuno-modulatory molecules that delay parasite-specific responses mediated by effector T cells. This mechanism of evasion allows the parasite to spread in the host. Parasite molecules that regulate the host immune response during Chagas'disease have not been fully identified. GPI-anchored mucins, glycoinositolphospholipids, and glycoproteins comprise some of the most abundant T. cruzi surface molecules. IL-10 IFN-?-secreting CD4+ T cells are activated during chronic infections and are responsible for prolonged persistence of parasite and for host protection against severe inflammatory responses. In this work we evaluated the role of rMBP::SSP4 protein of T. cruzi, a recombinant protein derived from a GPI anchored antigen, SSP4, as an immunomodulator molecule, finding that it was able to induce high concentrations of IL-10 and IFN-? both in vivo and in vitro; during this last condition, both cytokines were produced by IL-10-IFN-?-secreting CD4+ T cells.

Key Word :
Trypanosoma cruzi, IL-10, IFN-?, CD4+ T cells

Volume 7, Number 8, - 2011 , ISSN 1093-1100