G302 Characterization of Transcriptional Activation Region of Transcription Factor NFAT

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Nuclear factor of activated T cells (NFAT) plays an essential role in the transcriptional induction of cytokine genes and other genes critical for the immune response. The activity of NFAT protein is tightly regulated by ser/thr-phosphatase calcineurin that is a major component of the calcium signaling in lymphocytes. To characterize the transcriptional activation domain of NFATc.b, a member of NFAT family, we constructed plasmids expressing fusion proteins of LexA DNA-binding domain and a series of NFATc.b deletion mutants, and evaluated their transactivation activity in the yeast system. Our results indicate that N-terminal region of NFATc.b, particularly the first 28 residues which contain 8 acidic amino acids, provides the transcriptional activity.

G303 Biological Effect of *Houttuynia cordata Thunb* in Immune System

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Houttuynia cordata(HC) *Thunb* is a traditional medicine which has been used as antidote and antiphlogistic agent. The purpose of this study was to investigate the immunological effect of HC extract and to suggest its possibility for biological response modifiers. HC extract was prepared in cold TDW for 3days and concentrated by ammonium sulfate. Interfering substances for bioassay were excluded by treatments of organic solvents. This extract agglutinated 1% erythrocytes and hemagglutination was inhibited by the addition of several sugars. When the extract was treated with murine splenocytes, cell-cluster was detected with microscopy and both of B and T cells were highly proliferated. Human peripheral B and T cells showed the same phenomenon. Especially, the production of antibody in murine B cells treated with HC extracti was increased compared to that of untreated cells. In addition of B and T cells response, HC treated preritoneal exudated cells showed 10-fold increase of NO level. These results implies that HC extract has the activity of enhancing immune response by the activation of immune cells.