

论文

人参皂苷-Ro促进小鼠脾细胞增殖及调节小鼠脾细胞Th1/Th2细胞因子的产生

于君丽; 窦德强; 陈晓红; 杨红振; 胡晓燕; 程桂芳

1. 中国医学科学院、中国协和医科大学 药物研究所, 北京 100050; 2. 沈阳药科大学 天然产物化学教研室, 辽宁 沈阳 110001

摘要:

目的研究人参皂苷-Ro对小鼠脾细胞增殖及细胞因子产生的影响。方法 [³H] TdR参入法检测人参皂苷-Ro对小鼠脾淋巴细胞增殖的影响; 酶联免疫吸附法检测人参皂苷-Ro对小鼠脾淋巴细胞产生细胞因子白介素-2、干扰素-γ和白介素-4的影响; 逆转录聚合酶链式反应分析法研究人参皂苷-Ro对小鼠脾淋巴细胞中干扰素-γ、白介素-4 mRNA表达的影响。结果人参皂苷-Ro在1-10 μmol·L⁻¹显著促进Con A诱导的小鼠脾淋巴细胞增殖及小鼠脾淋巴细胞白介素-2的产生; 在2-10 μmol·L⁻¹促进Con A诱导的小鼠脾淋巴细胞产生和表达Th2细胞因子白介素-4, 而降低Con A诱导的小鼠脾淋巴细胞产生和表达Th1细胞因子干扰素-γ。结论人参皂苷-Ro通过调节脾细胞内Th1型和Th2型细胞因子的转录和表达发挥免疫调节作用。

关键词: 人参皂苷-Ro 白介素-2 白介素-4 干扰素-γ 脾细胞

Ginsenoside-Ro enhances cell proliferation and modulates Th1/Th2 cytokines production in murine splenocytes

YU Jun-li; DOU De-qiang; CHEN Xiao-hong; YANG Hong-zhen; HU Xiao-yan; CHENG Gui-fang

Abstract:

AimTo study the effects of ginsenoside-Ro on cell proliferation and cytokine production in murine splenocytes. MethodsThe effect of ginsenoside-Ro on murine splenocytes proliferation was studied using [³H] thymidine incorporation assay. Effects of ginsenoside-Ro on the production of cytokines interleukin-2 (IL-2), interferon-γ (IFN-γ) and interleukin-4 (IL-4) from murine splenocytes were detected by ELISA method. Effects of ginsenoside-Ro on mRNA level of Th1 cytokine IFN-γ and Th2 cytokine IL-4 were evaluated by reverse transcription polymerase chain reaction (RT-PCR) analysis. ResultsGinsenoside-Ro showed no mitogenic effect on unstimulated murine splenocytes. It enhanced the proliferation of Con A-induced murine splenocytes and the production of IL-2 at concentrations of 1-10 μmol·L⁻¹. Moreover, ginsenoside-Ro increased the production and expression of Th2 cytokine IL-4 and decreased the production and expression of Th1 cytokine IFN-γ in Con A-induced murine splenocytes at concentrations of 2-10 μmol·L⁻¹. ConclusionGinsenoside-Ro showed immunomodulatory effects by regulating the production and expression of Th1/Th2 cytokines in murine splenocytes.

Keywords: IL-2 IL-4 IFN-γ splenocytes ginsenoside-Ro

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作者简介:

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