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用于评价致敏原的IgG-HepG2细胞激活过程中相关炎性因子表达的观察

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中文摘要:目的: 研究转IgG启动子调控GFP基因表达HepG2细胞激活过程中相关炎性因子表达的变化。 方法: 采用Elisa法评价葛根素和LPS后诱导IgG启动子转基因细胞分泌IL-1β,IL-8,TNF-α和MCP-1蛋白量,qPCR法评价炎性相关因子和固有免疫相关因子的mRNA转录表达量。 结果: 和HepG2细胞相比,IgG启动子转基因细胞不增加炎性因子分泌和基因表达量,不激活固有免疫。葛根素不增加转基因细胞炎性因子分泌和基因表达量,不激活固有免疫系统。LPS激活固有免疫系统,显著升高IL-8,TNF-α和MCP-1分泌量。结论: IgG启动子转基因HepG2细胞可以作为评价II型变态反应的特异性细胞模型,提示葛根素可以作为特异性激活IgG启动子的阳性对照品。

中文关键词:IgG启动子 致敏原 炎性因子

Investigation of inflammasome during excitation of IgG-HepG2 cells for evaluation of allergenic ingredients

Abstract: Objective: To investigate the alteration of inflammasome and receptor during IgG promoter transfected to HepG2 cells. Method: By assay of Elisa to evaluate the secretion of IL-1*β*, IL-8,TNF-*α* and MCP-1 after puerarine and LPS administration, and by assay of real time PCR to evaluate the expression of mRNA of IL-1*β*, IL-8,TNF-*α* and MCP-1, as well as the receptors of TLR2,4 and NOD2, MyD88. Result: IgG promoter did not active innate immunity and enhance the expression and secretion of inflammasome in HepG2. Puerarine did not active the inflammasome either. LPS activated the innate immunity and increased the secretion of IL-8,TNF-*α* and MCP-1. Conclusion: IgG-HepG2 cells could be used specifically as the model of allergy type II for ingredients screening. It is suggested that puerarine was suite for the activator for this type of allergy as positive control.

keywords: IgG promoter allergenic ingredients inflammasome

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