



中文标题

检索

跨刊检索

寒热性中药成分对TRPV1和TRPM8通道蛋白基因表达的影响

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中文摘要:目的:探讨寒热中药的成分与TRP家族中TRPV1和TRPM8通道蛋白mRNA表达的相关性。方法:原代培养DRG神经元,在体外观察中药单体对通道蛋白表达的影响,基因的表达量采用荧光定量PCR(real time PCR)法检测,数据分析采用 $2^{-\Delta\Delta CT}$ 法。结果:热性中药的成分(吴茱萸碱、桂皮酚)上调TRPV1的表达,下调TRPM8的表达,尤以寒负荷后更为明显;寒性中药的成分(茯苓苷、大黄素)上调TRPM8的表达,下调TRPV1的表达,尤以热负荷后更为明显。结论:对TRPV1与TRPM8的表达调节可能与中药的寒热药性相关,这可能是寒热性中药临床上发挥寒热调节作用的机制之一。

中文关键词:寒热 DRG神经元 TRPV1 TRPM8 荧光定量PCR

Effects of ingredients from Chinese herbs with nature of cold or hot on expression of TRPV1 and TRPM8

Abstract:Objective: To study the effects of the ingredients from Chinese herbs with the nature of cold or hot on the expression of TRPV1 and TRPM8. Method: The effects of ingredients from herbs on primary culture DRG neurons are observed *in vitro*. The expression quantity of gene is detected by the method of real time PCR. The $2^{-\Delta\Delta CT}$ method is applied to analyze the data. Result: Ingredients from herbs with the nature of cold up-regulate the expression level of TRPV1 and down-regulate that of TRPM8, especially under the temperature condition of 39 °C; while ingredients from herbs with the nature of hot up-regulate the expression level of TRPM8 and down-regulated that of TRPV1, which is more significant under the temperature condition of 19 °C. Conclusion: The regulatory changes of TRPV1 and TRPM8 mRNA expression induced by the chemical ingredients might be related to the cold and hot natures of the herbs from which the ingredients are extracted. And this could be one of the therapeutic mechanisms for the treatment of Chinese herbal medicines to cold- and heat-related diseases.

keywords: cold and hot DRG neuron TRPV1 TRPM8 real time PCR

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