

论文

桂枝汤有效成分苯丙烯类化合物干预IL-1 β 刺激小鼠脑微血管内皮细胞释放PGE₂的构效关系

马悦颖;尚明英;李沧海;霍海如¹;蔡少青²;姜廷良

1. 中国中医科学院 中药研究所 唐氏中药研究中心, 北京 100700; 2. 北京大学 药学院, 北京 100083; 3. 中国中医科学院 医学实验中心, 北京 100700

摘要:

关键词: 苯丙烯类化合物 前列腺素E₂ 构效关系 脑微血管内皮细胞 白介素1 桂枝汤

Structure-activity relationship of phenylallyl compounds inhibiting PGE₂ release in mouse cerebral microvascular endothelial cells induced by IL-1 β

MA Yue-ying; SHANG Ming-ying; LI Cang-hai; HUO Hai-ru; CAI Shao-qing; JIANG Ting-liang

Abstract:

To observe the effects of phenylallyl compounds on prostaglandin E₂(PGE₂)release in mouse cerebral microvascular endothelial cells (bEnd.3) stimulated by IL-1 β , and to analyze their structure-activity relationship. Different concentrations of phenylallyl compounds were added separately, and the content of PGE₂ induced by IL-1 β in the culture media was measured by ELISA assay. The 50% inhibitory concentration (IC₅₀) of PGE₂ was calculated. Studies showed that phenylallyl compounds could affect the PGE₂ release differently in bEnd.3 cells induced by IL-1 β . Close relationships were shown between the inhibitory activities and the location and number of the substituent groups. In conclusion, phenylallyl compounds exhibited inhibitory activities at different extent on PGE₂ release in bEnd.3 cells stimulated by IL-1 β and presented certain structure-activity relationship.

Keywords: prostaglandin E₂ structure-activity relationship cerebral microvascular endothelial cell interleukin-1 Guizhi decoction phenylallyl compounds

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通讯作者: 霍海如, 蔡少青

作者简介:

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