

论著

阿魏酸钠对血管平滑肌细胞热休克蛋白27磷酸化的影响

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摘要 目的: 研究阿魏酸钠对血管紧张素II (angiotensin II,AngII) 与血小板源性生长因子-BB (platelet derived growth factor-BB,PDGF-BB) 诱导的血管平滑肌细胞 (vascular smooth muscle cells,VSMCs) 中热休克蛋白27 (heat shock protein 27,HSP27) 磷酸化的影响。方法: 采用体外培养大鼠胸主动脉平滑肌细胞; 用特异性的单克隆phospho-HSP27抗体的蛋白印迹法 (Western blotting) 检测HSP27的活性。结果: 阿魏酸钠以剂量依赖性方式抑制AngII和PDGF-BB诱导的HSP27磷酸化, 在10-4 mol/L [JP2] 时抑制作用最明显, 最大抑制率分别为39.0% (P<0.05) 和56.8% (P<0.01)。结论: 阿魏酸钠具有明显抑制由AngII和PDGF-BB诱导的VSMCs HSP27磷酸化的作用。

关键词 [阿魏属](#) [热休克蛋白质27](#) [血管紧张素II](#) [血小板源性生长因子](#) [肌,平滑,血管](#)

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Effect of sodium ferulate on heat shock protein 27 phosphorylation in vascular smooth muscle cells

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Abstract

AIM: To investigate the effect of sodium ferulate on phosphorylation of heat shock protein 27 (HSP27) in vascular smooth muscle cells (VSMCs) induced by angiotensin II (AngII) and platelet derived growth factor-BB (PDGF-BB).
METHODS: Cultured VSMCs derived from rat thoracic aorta were used.The activity of HSP27 was evaluated by Western blotting with specific phospho-HSP27 antibody.
RESULTS: The phosphorylation of HSP27 in response to AngII and PDGF-BB was suppressed by sodium ferulate in a dose-dependent manner,with maximal inhibition rates of 39.0% (P<0.05) and 56.8% (P<0.01) respectively at concentration of 10-4 mol/L.
CONCLUSION: HSP27 phosphorylation induced by AngII and PDGF-BB in VSMCs may be significantly inhibited by sodium ferulate.

Key words [Ferula](#) [Heat shock proteins 27](#) [Angiotensin II](#) [Platelet derived growth factor](#) [Muscle smooth](#) [vascular](#)

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