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Resistin基因对TNF- α 诱导血管内皮细胞ICAM-1表达的影响 [点此下载全文](#)

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摘要:

目的: 研究抵抗素(resistin)基因对TNF- α 诱导血管内皮细胞ECV304表达细胞间黏附分子1(ICAM-1)的影响。方法: 应用分子生物学技术, 将resistin基因克隆到载体pEGFP-C1中构建质粒pEG/Resi, 脂质体转染ECV304, 转染6 h加入20 μ g/L TNF- α 诱导, 用RT-PCR方法分别检测转染18、30、42和54h时resistin和ICAM-1 mRNA表达; 同时用免疫印迹法检测resistin蛋白的表达, 并用ELISA方法检测各期ECV304上清ICAM-1蛋白表达。结果: 经酶切鉴定和测序证实质粒pEG/Resi构建成功并可在ECV304中表达; 相同TNF- α 诱导条件下转染resistin基因组的ICAM-1表达水平始终高于未转染组, 在resistin基因表达高峰(30和42 h)ICAM-1 mRNA和蛋白表达量较未转染组均显著升高($P < 0.05$); 且ICAM-1 mRNA和蛋白表达水平均随resistin基因表达量的增加而升高。结论: Resistin基因能够增强TNF- α 诱导ECV304细胞表达ICAM-1。

关键词: [resistin](#) [肿瘤坏死因子 \$\alpha\$](#) [细胞间黏附分子1](#)

Effects of resistin gene on TNF- α induced expression of ICAM-1 in vascular endothelial cells [Download Fulltext](#)

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Abstract:

Objective: To study the effect of resistin gene on TNF- α induced expression of ICAM-1 in ECV304 cells. Methods: Resistin gene was cloned into vector pEGFP-C1 to construct pEG/Resi plasmid; the latter was then used to transfect ECV304 cells via liposome. TNF- α (20 μ g/L) was added to the system 6 h after transfection. RT-PCR was used to detect the expression of resistin and ICAM-1 mRNA in the cells 18, 30, 42 and 54 h after transfection; meanwhile, the resistin protein levels were determined by Western blotting analysis. ICAM-1 protein levels in the supernatants of ECV304 cells were determined by ELISA. Results: Restriction enzyme digestion and sequencing demonstrated that the recombinant plasmid was successfully constructed and was expressed in ECV304. ICAM-1 levels in resistin transfected group were consistently higher than that in the non transfected group in the presence of TNF- α . ICAM-1 mRNA and protein expression in the transfected group was significantly higher than that in the non transfected group during the peak periods (30 and 42 h) of resistin expression ($P < 0.05$); ICAM-1 mRNA and protein expression increased with the increase of resistin gene expression. Conclusion: Resistin gene can enhance TNF- α induced expression of ICAM-1 in ECV304 cells.

Keywords: [resistin](#) [tumor necrosis factor \$\alpha\$](#) [intercellular adhesion molecule 1](#)

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