遗传 1998 20 (6): 22-25 ISSN: 0379-4172 CN: 11-5450/R

核转录因子结合活性与血管平滑肌细胞增殖的关系 Nuclear Transcription Factor Binding Activity andProliferation of Vascular Smooth Muscle Cell

赵彦艳1, 孙开来1, 于克2 ZHAO Yan-yan1,SUN Kai-lai1,YU Ke2

1.中国医科大学医学遗传学教研室,沈阳 110001 2.沈阳铁路局环境科学研究所，沈阳 110032

1.Department of Medical Genetics,China Medical University,Shenyang 110001 2.Environmental Science Institute,Shenyang Railway Bureau,Shengyang 110032

收稿日期 修回日期 网络版发布日期 接受日期

摘要 通过培养血管平滑肌细胞(VSMC)的直接细胞计数显示自发性高血压大鼠S HR的细胞增殖快于正常血压大鼠WKY;应用DNA-蛋白质凝胶漂移泳动技术比较SHR和WKY的VSMC核转录因子Ap1、Ap2、GRE、CREB、Sp1、CTF/NF1、NF-κB结合活性,发现SHR的CTF/NF1和NF-κB结合活性高于WKY,用P65和P 50抗体证明了NF-κB结合的特异性;同时,LPS诱导VSMC和PDTC抑制LPS诱导的实验表明NF-κB结合活性增强是通过IκB磷酸化而激活。本研究提示核转录因子NF-κB对高血压VSMC异常增殖有重要作用。

Abstract:Vascular smooth muscle cells(VSMC) from spontaneously hypertensive rats(SHR) exhibited exaggerated growth as compared with the cells from normotensive Wistar-Kyoto(WKY) by direct cell count in culture.A comparison of nuclear transcription factors Ap1、Ap2、GER、CREB、Sp1、CTF/NF1、NF-κB binding activity of VSMC between SHR and WKY showed higher CTF/NF1 and NF-κB activity in SHR than WKY.P65 Ab and P50 Ab were used to test the specificity of NF-κB binding.Moreover,LPS induced NF-Kb binding of VSMC,and PDTC suppressed LPS-induced NF-κB DNA-binding.So NF-κB may be activated through phosphorylation of IκB.These results suggested nuclear transcription factor NF-κB may contribute to the pathogenesis of proliferation of VSMC in hypertension.

关键词 血管平滑肌细胞 核转录因子 NF-κB Key words Vascular smooth muscle cell Nuclear transcription factor NF-κB

分类号

Abstract

Key words

DOI:

通讯作者