[1]黎联,孙贵银,向德兵,等.基质金属蛋白酶26能促进人低转移肺癌95-C细胞浸润能力[J].第三军医大学学报,2014,36(17):1805-1808.
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基质金属蛋白酶26能促进人低转移肺癌95-C细胞浸

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Title: Matrix metalloproteinase-26 promotes cell invasion in non-invasive (95-C) lung cancer cells with low metastatic ability

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关键词: 基质金属蛋白酶类; 95-C细胞; 细胞浸润

Keywords: matrix metalloproteinases; 95-C cells; cell invasion

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摘要:

目的 探讨基质金属蛋白酶26（matrix metalloproteinase 26,MMP-26）对低转移肺癌95-C细胞浸润能力的影响及机制。 方法 构建含MMP-26 cDNA的表达质粒PUC57-MMP-26，转染到MMP-26低表达的95-C细胞，并筛选稳定表达的含MMP-26 cDNA的细胞，RT-PCR检测MMP-26、MMP-9 mRNA表达，明胶酶谱分析检测过表达MMP-26对95-C细胞分泌MMP-9的影响，侵袭试验检测细胞体外侵袭力，双荧光免疫细胞化学染色检测MMP-26、MMP-9蛋白在细胞内的定位。 结果 转染含MMP-26 cDNA表达质粒的95-C细胞MMP-26、MMP-9 mRNA表达上调（$P<0.05$）。明胶酶谱分析显示过表达MMP-26的95-C细胞分泌MMP-9能力、体外侵袭力明显增强（$P<0.05$）。双荧光免疫细胞化学染色发现MMP-26、MMP-9在细胞内共定位。 结论 MMP-26可以促进肺癌95-C细胞的侵袭力，MMP-26促进侵袭的作用至少部分是通过调节MMP-9表达实现的。

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Abstract: Objective To determine the effect of matrix metalloproteinase-26 (MMP-26) on cell invasiveness in lung cancer 95-C cells and its possible underlying mechanism. Methods A full-length cDNA encoding human MMP-26 was cloned into the eukaryotic expression vector PUC57, and this vector was designated as PUC57-MMP-26. After the vector was transfected into 95-C cells, the stable cells expressing MMP-26 were screened out, then RT-PCR was used to detect the mRNA expression of MMP-26 and MMP-9. The secretion of MMP-9 in the transfected cells was detected by gelatin zymography. *In vitro* invasion was detected by transwell assay and localization of MMP-26 and MMP-9 proteins were determined by double immunofluorescent staining. Results Transfection of MMP-26 expressing plasmid PUC57-MMP-26 in 95-C cells led to over-expression of MMP-26 mRNA and MMP-9 mRNA（P<0.05）, and cell invasiveness in these cells were significantly promoted （P<0.05）. The results of gelatin zymogram revealed that MMP-26 over-expression enhanced the secretion of MMP-9（P<0.05）. Double immunofluorescence staining revealed that MMP-26 and MMP-9 were co-localized in MMP-26-transfected 95-C cells. Conclusion MMP-26 is involved in invasion-promoting regulating of lung cancer cells, and it functions, at least in partial, through interaction with MMP-9.

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黎联, 孙贵银, 向德兵, 等. 基质金属蛋白酶26能促进人低转移肺癌95-C细胞浸润能力[J].第三军医大学学报,2014,36(17):1805-1808.