

论著

人血清白蛋白对近端肾小管上皮细胞骨调素和CD44表达的影响

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摘要 目的: 研究人血清白蛋白能否刺激人近端肾小管上皮细胞产生骨调素(OPN)和CD44。方法: 用人血清白蛋白刺激人近端肾小管上皮细胞系(HK-2细胞), 分不同时间(0-48 h)、不同浓度(0.1-10 g/L)两组, 以RT-PCR方法分别检测两组细胞表达的OPN mRNA, 以Western blotting分别检测两组细胞表达的OPN。用免疫荧光法、激光共聚焦显微镜观察1 g/L的人血清白蛋白刺激HK-2细胞24 h、48 h后OPN、CD44的表达。结果: 人血清白蛋白刺激HK-2细胞上调表达OPN mRNA和蛋白, 呈时间和剂量相关性。CD44的表达与OPN同步。结论: 人血清白蛋白可刺激HK-2细胞表达OPN与CD44。

关键词 [骨调素](#); [抗原,CD44](#); [肾](#); [白蛋白类](#)

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Human serum albumin stimulates osteopontin and CD44 expression in human renal proximal tubular epithelial cells

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Abstract

AIM: To investigate the expression of osteopontin (OPN) and CD44 in human renal proximal tubular epithelial cells stimulated by human serum albumin (HSA). METHODS: Proximal tubular epithelial HK-2 cells were stimulated by HSA at different concentrations for different time, then OPN mRNA production was detected by RT-PCR, and OPN protein was detected by Western blotting. The expression of OPN and CD44 in HK-2 cells after stimulation for 24 h or 48 h were detected by immunofluorescence with confocal laser scanning microscope. RESULTS: Osteopontin mRNA in HK-2 cells showed a highest expression at 3 h and 48 h after HSA stimulation. However, the expression of OPN protein in HK-2 cells reached the maximum at 24 h after HSA stimulation. OPN mRNA and protein showed a strong dose-dependence relation with the concentration of HSA. HSA also stimulated HK-2 cells to express CD44 protein, the fluorescence of CD44 was most prominent at 48 h after HSA stimulation. CONCLUSION: HSA stimulates human renal proximal tubular epithelial cells to express OPN and CD44.

Key words [Osteopontin](#) [Antigens](#) [CD44](#) [Kidney](#) [Albumins](#)

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