Over-expression of EBP50 supresses the invasion and migration of CIA-FLS in vitro by downregulating MMP-9

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Abstract

Studies had confirmed that the abnormal proliferation and activation of FLS play a key role in the process of arthropathy. Inhibiting the abnormal proliferation and activation of FLS may be an effective method to control the development of RA. Many studies showed that EBP50 was a powerful factor in inhibiting the abnormal tumor cell proliferation and activation, but the expression characteristics and function of EBP50 in FLS had not yet been reported. In this study we showed that overexpression of EBP50 in CIA-FLS can inhibit the proliferation, which had no effect on the autophagy, and promoted the cell apoptosis by activating caspase-3. At the same time, relative results revealed that EBP50 overexpression markedly down-regulated the expression of MMP-9, but had no effect on MMP-2, E-cadherin and β-catenin, suggesting that one of the mechanisms for EBP50-regulated aggressive behavior of FLS is reducing MMP-9 production.

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