عنوان مقاله:

Transcriptional Analysis of VEGF-D and TGFβ Genes in MCF۷ Cells Exposed to Saponin Isolated from Holothuria (leucospilota (Sea Cucumber

محل انتشار:

مجله گزارش های بیوشیمی و زیست شناسی مولکولی, دوره 4, شماره 1 (سال: 1394)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Background: Marine natural products contain a wide range of bioactive compounds with therapeutic properties that have revealed crucial properties in the treatment of some diseases. Some of these compounds have recently received considerable attention for drug discovery. In this study we examined the anti-angiogenic effect of saponin isolated from Holothuria leucospilota (sea cucumber) through evaluation of vascular endothelial growth factor D (VEGF-D) and transforming growth factor-β (TGFβ) expression in a breast cancer cell line. Methods: To investigate the effect of SCS on VEGF-D and TGF-β expression in breast cancer cells, the cells were treated with various concentrations of sample. After ۴۸ h the viability of the cells was evaluated by trypan blue staining, and VEGF-D and TGFβ mRNA expression was were evaluated by real time-PCR. Results: Our results revealed that SCS can suppress cell viability and VEGF-D and TGFβ mRNA expression in breast cancer cells. Sea cucumber saponin at a concentration of ۱۲ µg/ml inhibited VEGF-D and TGFβ expression more than ۹۰% compared with controls. Conclusion: Findings suggest that SCS could inhibit tumor growth via inhibition of angiogenesis.

کلمات کلیدی:

Angiogenesis, Anticancer, Saponin, Sea cucumber