

عنوان مقاله:

Inhibition of liver cancer cell line by hydatid cyst fluid

محل انتشار:

هفتمین کنفرانس بین المللی بهداشت، بحران و ایمنی (سال: 1402)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Worm parasites, including *Echinococcus granulosus*, contain compounds that exhibit antitumor activity. So, the objective of this study was to evaluate the effects of antigen B extracted from hydatid cyst fluid on liver Hep G2. Methods: Effects of different concentrations of antigen B on Hep G2 and HEK293 cells proliferation were investigated using the MTT assay. Cell cycle analysis to measure cellular DNA content in the G0/G1, S and G2/M was done using Flow cytometry. Annexin-V/PI staining method was used to determine cells apoptotic rate. Furthermore, the mRNA expression of pro-apoptotic gene BAX and anti-apoptotic gene BCL2 was assessed by RT-PCR after exposure to antigen B. Results: The effect of antigen B on HEK293 and Hep G2 cells showed that HEK293 cells as a normal cell line is less sensitive than cancer cell line B16F10 to antigen B, and IC50 values in HEK293 and Hep G2 cells were 35 ± 4.3 and $15 \pm 3.1 \mu\text{M}$, respectively. In both cell lines, the antigen B induced anti-proliferative effect on the cells with increasing cell population at G0/G1, and decreasing the numbers of cells at the S and G2/M phases. Our results also showed antigen B can induce cell apoptosis in both HEK293 and B16F10 cell lines and increased the mRNA expression of BAX and decreased the mRNA expression of BCL2 thereby induction of cell apoptosis. Conclusion: this study confirmed that antigen B inhibits proliferation and promotes apoptosis of HEK293 and Hep G2 cells and can raise hopes in the treatment of melanoma cancer supplement in the toxicity caused by rice tablets.

کلمات کلیدی:

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