

## عنوان مقاله:

The study of protective effects of Propolis against X radiation on MCF-7 cell line

## محل انتشار:

بیستمین کنگره ملی و هشتمین کنگره بین‌المللی زیست‌شناسی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

Breast cancer is a major health problem for women all over the world. It is the second most common cancer after the lung cancer and the most common cause of cancer death among women. Propolis contains flavonoids and polyphenols that have notable antioxidant and anti-cancer and anti-microbial effects. Propolis samples were extracted with 96% ethanol. MCF-7 cells were cultured in RPMI medium. EEP extract was dissolved in DMSO and used for cell treatment. The effect of Propolis on the viability of MCF-7 cells was determined by MTT assay. Effects of Xradiation along with extracts by assessment of the viability, cell apoptosis, and molecular methods were determined. The results showed that Propolis extracts in low concentrations had not significant lethal effect. As well as X-ray treatment had not lethal effect at the dose of 1 Gy, while the X-ray treatment with extracts showed significant cytotoxic effect.  $IC_{50}$  of X-radiation and extract treatments was 14 micrograms/ml. In this study, AO/EB and Annexin-V/PI tests were used in order to search for apoptosis in the treated cells. The rate of apoptosis in cells treated by X-ray along with 15 micrograms/ml of extract was significantly increased in compared with the control. These findings suggested that Propolis had not strong cytotoxicity effects in the low concentrations. However, the extract treatments along with the other compounds (Xray) were significantly cytotoxic

## کلمات کلیدی:

Apoptosis, X-ray, Propolis, MCF-7, MTT

## لینک ثابت مقاله در پایگاه سیویلیکا:

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