

عنوان مقاله:

Evaluation of benzoxaloyl coumarins induced cell death in MDA-MB-231 Triple negative breastcancer cell line

محل انتشار:

دهمین کنگره بین المللی سرطان پستان (سال: 1393)

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خلاصه مقاله:

The incidence of breast cancer in Iran is less than western countries but it occurs about a decade earlier than well developed countries. In comparison with other types of breast cancer, patients with triple negative tumors have poor prognosis with less response to current therapies. Here, we investigated the cytotoxic effect of three synthetic benzoxaloyl coumarins in triple-negative breast cancer cell line MDAMB231. Three derivatives of benzoxaloyl coumarin were synthesized. MDA-MB231 cells were treated with concentration of 5, 25, 50, 100 and 150 μ M of benzoxaloyl coumarins for 72 hours, separately. Cell viability was assessed using MTT assay, analyzed by GraphPad Prism software and EC50 values were calculated. All three benzoxaloyl coumarin derivatives induced significant cell death in the treated MDAMB- 231 cells. Results showed that the Benzoxazole coumarins induce a significant cell death in the MDA-MB-231 cells. So far, the cell death induction of benzoxaloyl coumarins in triple negative breast cancer cells has not been reported. But, growth inhibitory effects of other coumarins in lung and breastcancer cell lines (such as MCF7) were reported. It could be concluded that benzoxaloyl coumarins possess cell death induction activity and might be new candidates in drug design for triple negative breast cancer.

کلمات کلیدی:

Breast cancer, cytotoxicity, triple-negative breast cancer, benzoxaloyl coumarins

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