

عنوان مقاله:

The effect of cyclic Carnosine peptide analogues on Isolated Mitochondria of A549 Cells

محل انتشار:

چهارمین کنفرانس بین المللی پژوهشهای کاربردی در علوم شیمی و زیست شناسی (سال: 1396)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Our study showed that a various range of toxicity on A549 cells was resulted by the cyclic Carnosine analogues using MTT assay. Also, applying peptides on the mitochondria of A549 cells, a raise of mitochondrial reactive oxygen species (ROS) level, mitochondrial membrane potential ($\Delta\psi_m$) collapse of the affected mitochondria were detected. Based on the overall results, cyclic Carnosine analogues, especially compounds 2c [Cyclo-(Pro- β -alanine-His- β -alanine-His)], 4c [Cyclo-(Pro-His- β -alanine- β -alanine-His)] and 6c [Cyclo-(Pro- β -alanine-His-His- β -alanine)], showed more toxic activity than other Carnosine analogues, which would be encouraging to develop these peptide analogues as new anticancer and complementary therapeutic agents for the treatment of lung cancer.

کلمات کلیدی:

Carnosine, Cytotoxicity, Apoptosis, Mitochondria

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