

عنوان مقاله:

Synthesis, Structural Characterization, and Cytotoxic Activity of a Copper(II) Complex of Lidocaine

محل انتشار:

هشتمین کنفرانس ملی نوآوری و فناوری علوم زیستی و شیمی ایران (سال: 1403)

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خلاصه مقاله:

In this work, we have synthesized and characterized a Cu-lidocaine complex. Complex was characterized by UV-vis, Elemental analyses and FT-IR analysis. Synthesis and studies on $[Cu(LC)_2(H_2O)_2](NO_3)_2$ complex help us to design improved drugs and to realize the characters of mixed-ligand complex. The cell mortality in MCF-7 cancer cell at highest concentration ($800 \mu\text{g/ml}$) of Cu(II) complex at 24, 48, and 72h were 63.56%, 80.28% and 86.23%, respectively. Also, the obtained IC_{50} value for Cu(II) complex in MCF-7 cancer cell is 296.91, 204.54 and 145.15 $\mu\text{g/ml}$ for 24, 48, and 72h. It is clear that the Cu(II) complex demonstrate higher inhibitory effects on MCF-7 cells at 72h.

کلمات کلیدی:

Lidocaine, Cu(II) complex, Characterization, Cytotoxic assessment

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