

## عنوان مقاله:

In vitro cytotoxicity studies of parent and nano-encapsulated ytterbium complex toward HSA binding properties

## محل انتشار:

دومین کنگره ملی شیمی و نانو شیمی از پژوهش تا فناوری (سال: 1398)

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## خلاصه مقاله:

In this paper, the interaction of ytterbium(III) complex including 2,2'-bipyridine, as fluorescence probe with HSA is studied during experimental investigations. Multi-spectroscopic methods are utilized to determine the affinity binding constants ( $K_b$ ) of complex-HSA. There are different approaches to determine the features of the binding mode between Yb-complex with HSA. Moreover, molecular docking study indicated that this complex bind to polar and apolar residues located in the subdomain IB of HSA (site 3). Also, the parent and starch and lipid nanoencapsulated Yb-complex, as potent antitumor candidates, were synthesized. The main structure of Yb-complex is maintained after encapsulation using starch and lipid nanoparticles. MTT method was used to assess the anticancer properties of Yb-complex and its encapsulated forms on human cancer cell lines of human lung carcinoma cell line. In conclusion, these compounds could be considered as new antitumor candidates

## کلمات کلیدی:

Ytterbium(III) complex, HSA-binding property, Molecular docking, Cytotoxicity, starch and lipid nanoencapsulated

## لینک ثابت مقاله در پایگاه سیویلیکا:

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