عنوان مقاله:

Comparison of chelating ability of dipeptide (histidine-β-alanine) and (tetrakis(4-sulfonatophenyl)porphyrin) (TPPS4) for in vitro removal of toxic metals

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خلاصه مقاله:

Peptides are one of the best candidates for drug development due to their high specificity and low toxicity and porphyrins are significant macromolecules in biological systems with important roles. In this works ynthesis of dipeptide (histidine-β-alanine) was done by solid-phase peptide synthesis method (SPPS) and tetrakis(4-sulfonatophenyl)porphyrin (TPPS4) was synthesized by Adler method. The molecular structure of the dipeptide and porphyrin was defined by using different methods such as UV-Vis, FT-IR, 1H NMR and LC-Mass spectrometry for dipeptide. Kinetics study and comparison of the chelating ability of dipeptide (histidine-β-alanine) and TPPS4 was investigated for removing of metal ions Al3+, Cu2+, Hg2+ and Pb2+ in vitro.

کلمات کلیدی:

Dipeptide, solid-phase peptide synthesis, tetrakis(4-sulfonatophenyl)porphyrin, chelating ability