Synthesis, characterization and molecular modeling of a cyclodextrin-bioconjugate as anticancer carrier

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In recent years, many efforts have been devoted to the development of new, specific drug delivery systems, conceived to enhance the therapeutic performance of pharmacologically active molecules by promoting the specific accumulation at target sites. With the aim of designing a new targeting system for cancer treatment, we have recently synthesized a beta-cyclodextrin derivative (CD-PEG-FA), in which folic acid was conjugate to the carbohydrate macrocycle via a PEG spacer

In this paper, we present the results of a combined molecular modeling/experimental study of this CD-bioconjugate and its inclusion complexes with some anticancer active compounds.