

Synthesis of Biotin-Conjugated pH-Sensitive Polymeric Micelle for Tumor Targeting

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The ligand-mediated nanoparticle is able to penetrate into target tumors easily because it has high binding affinity to a specific receptor on the surfaces of tumor cells. Biotin containing poly(ethylene glycol) grafted poly(β -amino ester) (Biotin-PEB), pH-sensitive amphiphilic block copolymer, was synthesized. The structure of Biotin-conjugated copolymers was confirmed by ^1H NMR spectroscopy and the existence of biotin at the surface of the Biotin-PEB micelles was evaluated by HABA/Avidin binding assay. The size of the Biotin-PEB micelles was determined by dynamic light scattering measurement and the result showed that the polymeric micelle disrupted below pH 6.6.