

Construction of AuNSs-AA@Fe₃O₄-PEI/PEG

In Figure S1-A, the TEM result showed that the form of Fe₃O₄-PEI@AuNSs-AA/PEG complexes was almost same as Fe₃O₄-PEI@AuNSs-EGCG/PEG. As shown in Figure S1-B, the diffraction peaks (311, 511, 400) correspond to the face-centered cubic structure of magnetite according to JCPDS card (No. 88-0315), and the peaks related to Au (red color) appeared which can be attributed to the crystal planes of 111, 200, 220 and 311 of the face-centered cubic structure (FCC) of Au (JCPDS No. 65-8601). This XRD results were further proved that the construction of Fe₃O₄-PEI@AuNSs-EGCG/PEG NPs was success.

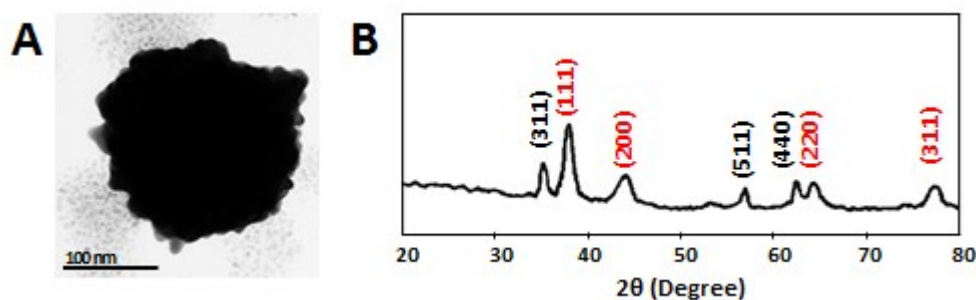


Figure S1. A) TEM of AuNSs-AA@Fe₃O₄-PEI/PEG. B) XRD pattern of AuNSs@Fe₃O₄-PEI/PEG (black: EGCG method; gray: ascorbic acid method)

Normal cell culture

Human normal prostate epithelial RWPE-1 cells were maintained in keratinocyte serum-free medium (GIBCO, NY, USA) supplemented with 50 mg/l bovine pituitary extract, 5% l-glutamine and 5 µg/l epidermal growth factor. Cells were maintained in a humidified incubator (5% CO₂) at 37 °C. RWPE-1 cells were seeded into 96-well plates at a density of 1 × 10⁴ cells/well. After 24 h incubation, cells were treated with different concentration of Fe₃O₄-PEI@AuNSs-EGCG/PEG and Fe₃O₄-PEI@AuNSs-AA/PEG, respectively. After incubation for another 24 h, cytotoxicity was

measured by MTT method.

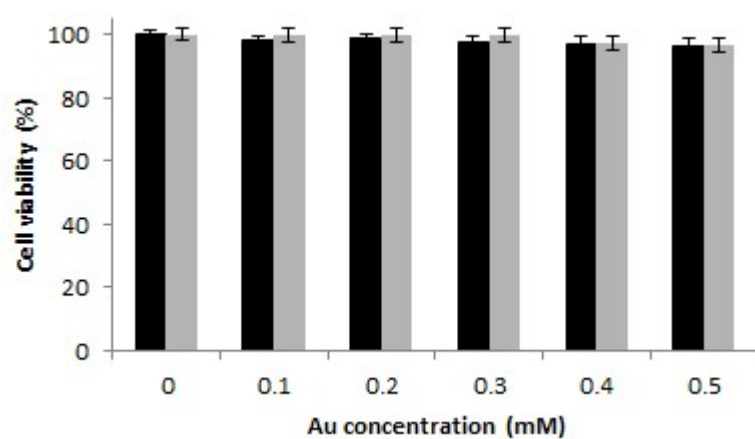


Figure S2. Cytotoxicity of RWPE-1 cells after Fe₃O₄-PEI@AuNSs-EGCG/PEG (black) and Fe₃O₄-PEI@AuNSs-AA/PEG (grey) treatment with different concentrations, respectively.