Supplementary materials

Targeted Delivery of Cisplatin-Derived Nanoprecursors via a Biomimetic Yeast Microcapsule for Tumor Therapy by the Oral Route

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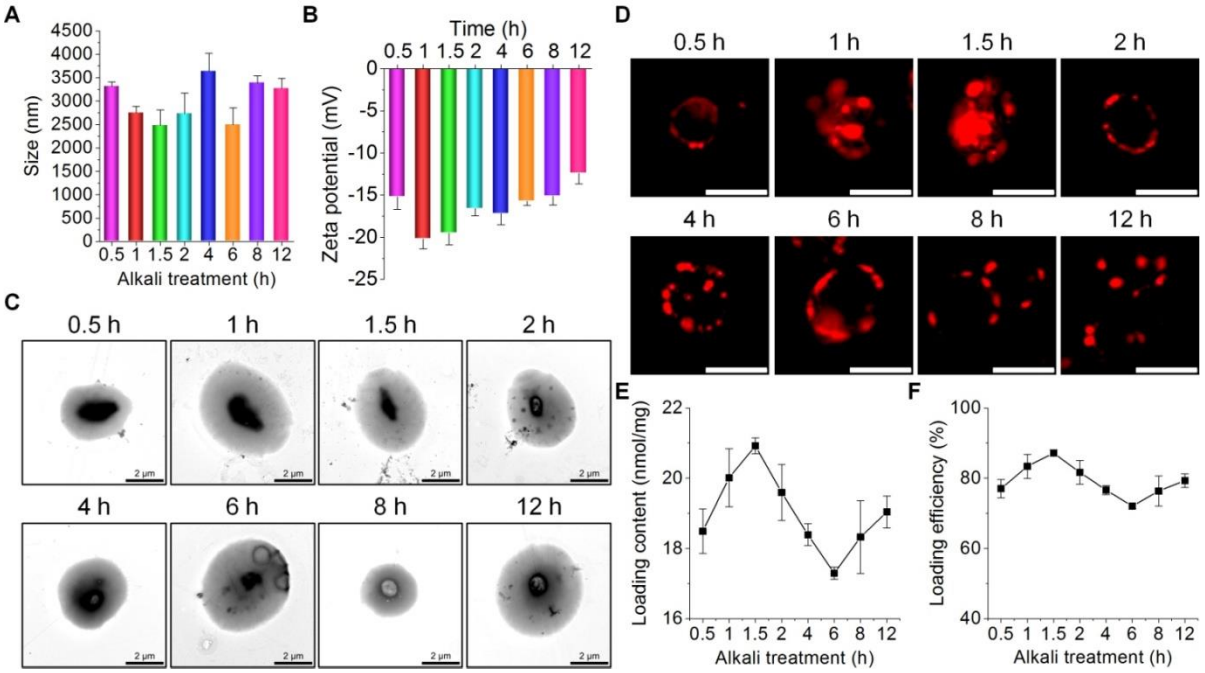

Figure S1. The effects of alkali treatment time on physicochemical properties and loading capacity of YCs. (A-C) Average size (A), zeta-potential values (B), and TEM images (C) of YCs obtained after treatment with alkali for different periods of time. (D) Representative CLSM images of QD620-loaded YCs based on YCs obtained after alkali treatment for various time periods. (E-F) The effect of alkali treatment time on QD620 loading contents (E) and loading efficiency (F) of YCs. The scale bars in (D) represent 4 μm. Data are mean ± SD (n = 3). For all YCs, the acid treatment time was 1 h.

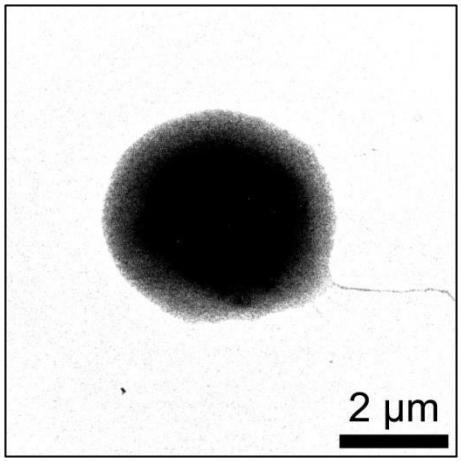

Figure S2. A representative TEM image showing an intact yeast cell.

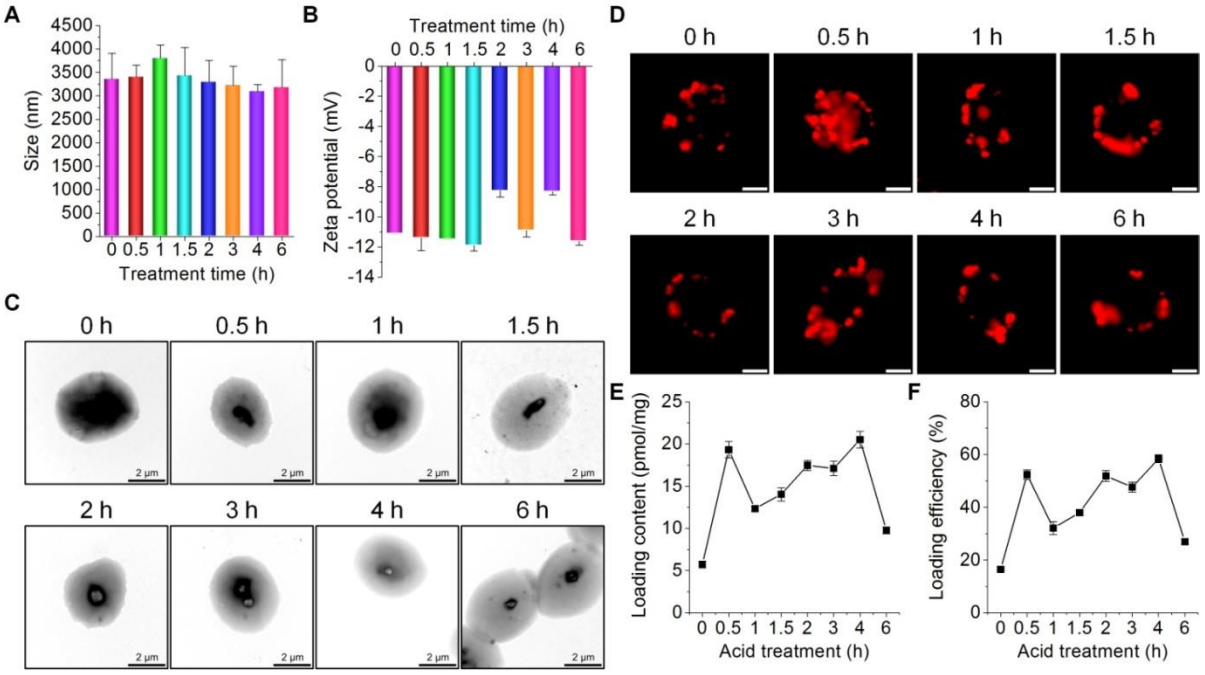

Figure S3. The effects of acid treatment time on physicochemical properties and loading capacity of YCs. (A-C) Average size (A), zeta-potential values (B), and TEM images (C) of YCs obtained after acidic treatment for different periods of time. (D) Representative CLSM images of QD620-loaded YCs derived from YCs prepared with acid treatment for various time periods. (E-F) The effects of acid treatment time on QD620 loading efficiency (E) and loading contents (F) of YCs. The scale bars in (D) represent 2 μm. Data are mean ± SD (n = 3). For all YCs, the alkali treatment time was 1 h.

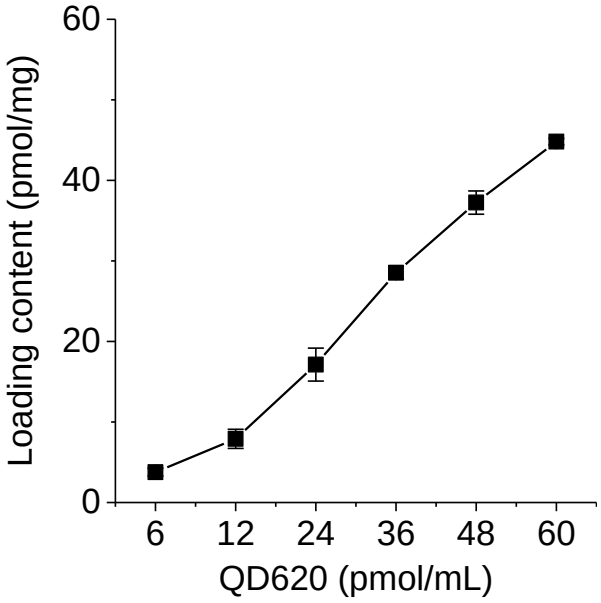

Figure S4. The effect of QD620 feeding on its loading content in YC.

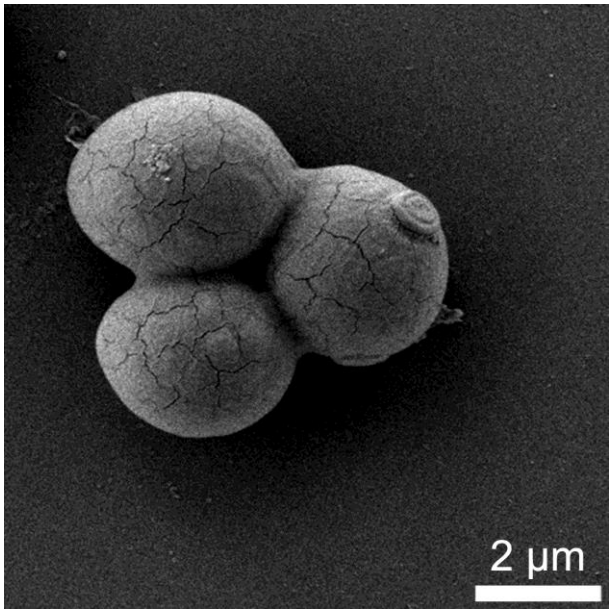

Figure S5. A typical SEM image showing intact yeast cells before removal of core contents.

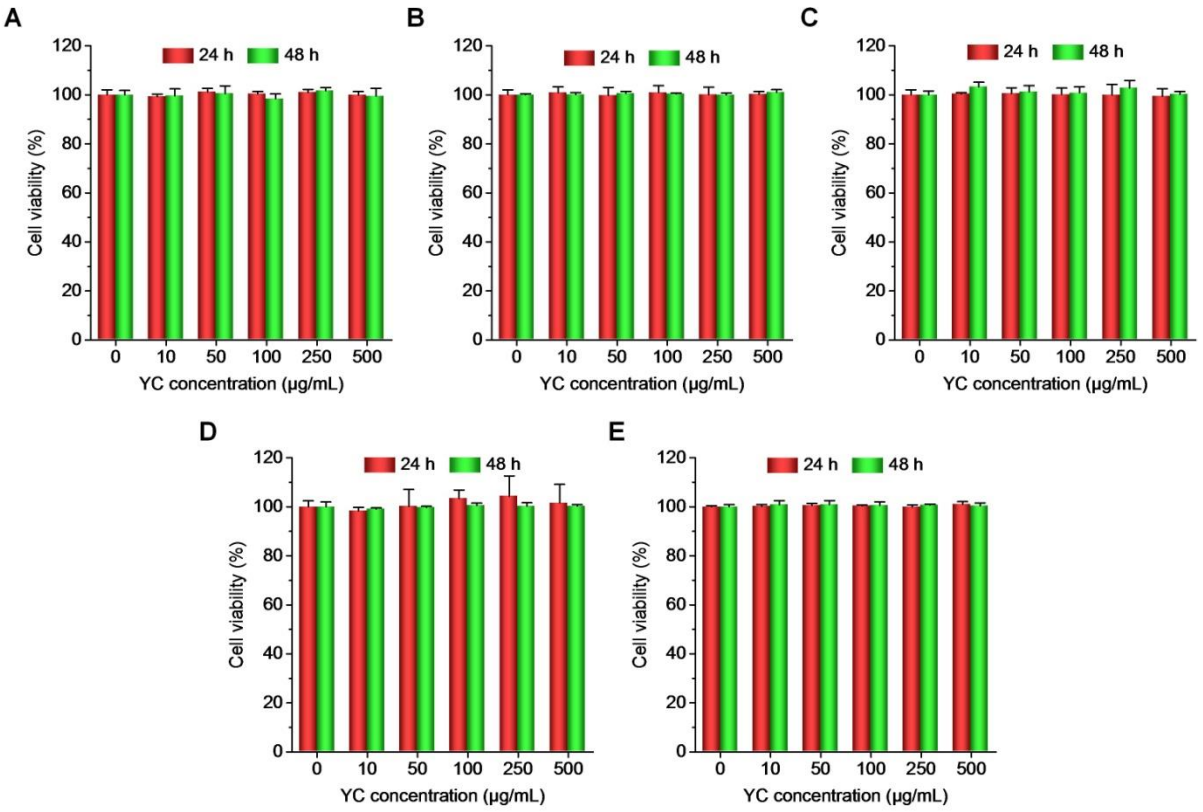

Figure S6. Cytotoxicity of YC in different tumor cells after incubation for 24 or 48 h. (A-E) HepG2 hepatocellular carcinoma cell (A), HeLa human cervical cancer cell (B), A549 human lung carcinoma cell (C), MCF-7 breast cancer cell (D), and multidrug resistant MCF-7 cell (MCF-7/ADR) (E). Data are mean ± SD (n = 5).

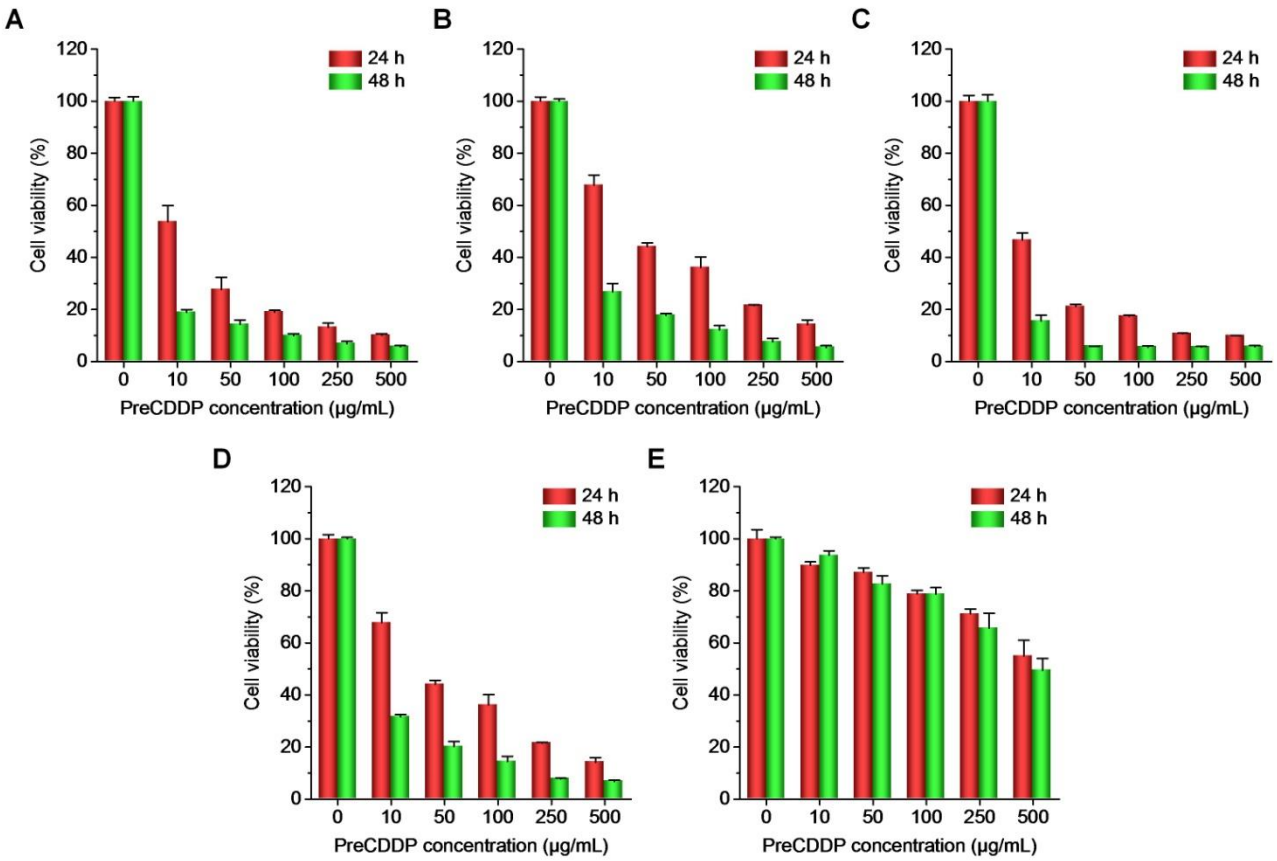

Figure S7. Cytotoxicity of PreCDDP in different tumor cells after incubation for 24 or 48 h. (A-E) HepG2 hepatocellular carcinoma cell (A), HeLa human cervical cancer cell (B), A549 human lung carcinoma cell (C), MCF-7 breast cancer cell (D), and multidrug resistant MCF-7 cell (MCF-7/ADR) (E). For all cell viability experiments, the indicated concentrations represent the doses of PreCDDP. Data are mean ± SD (n = 5).

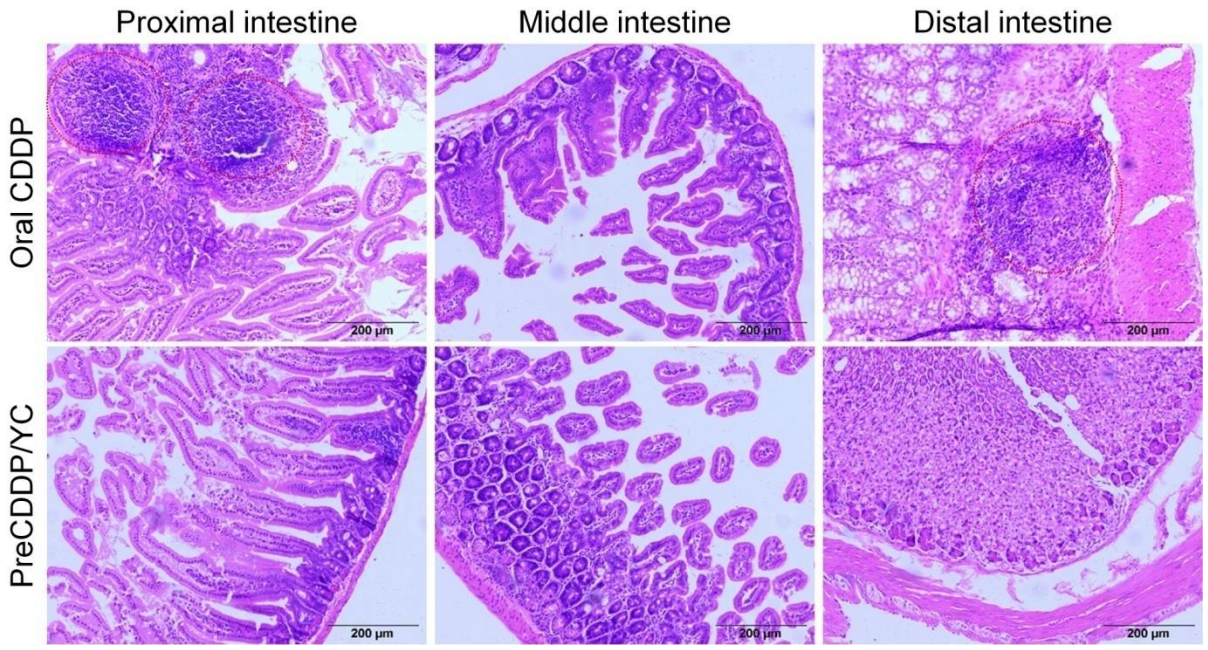

Figure S8. H&E-stained histopathological sections of intestinal tissues from nude mice subjected to various treatments. The red circles indicate inflammatory infiltration.