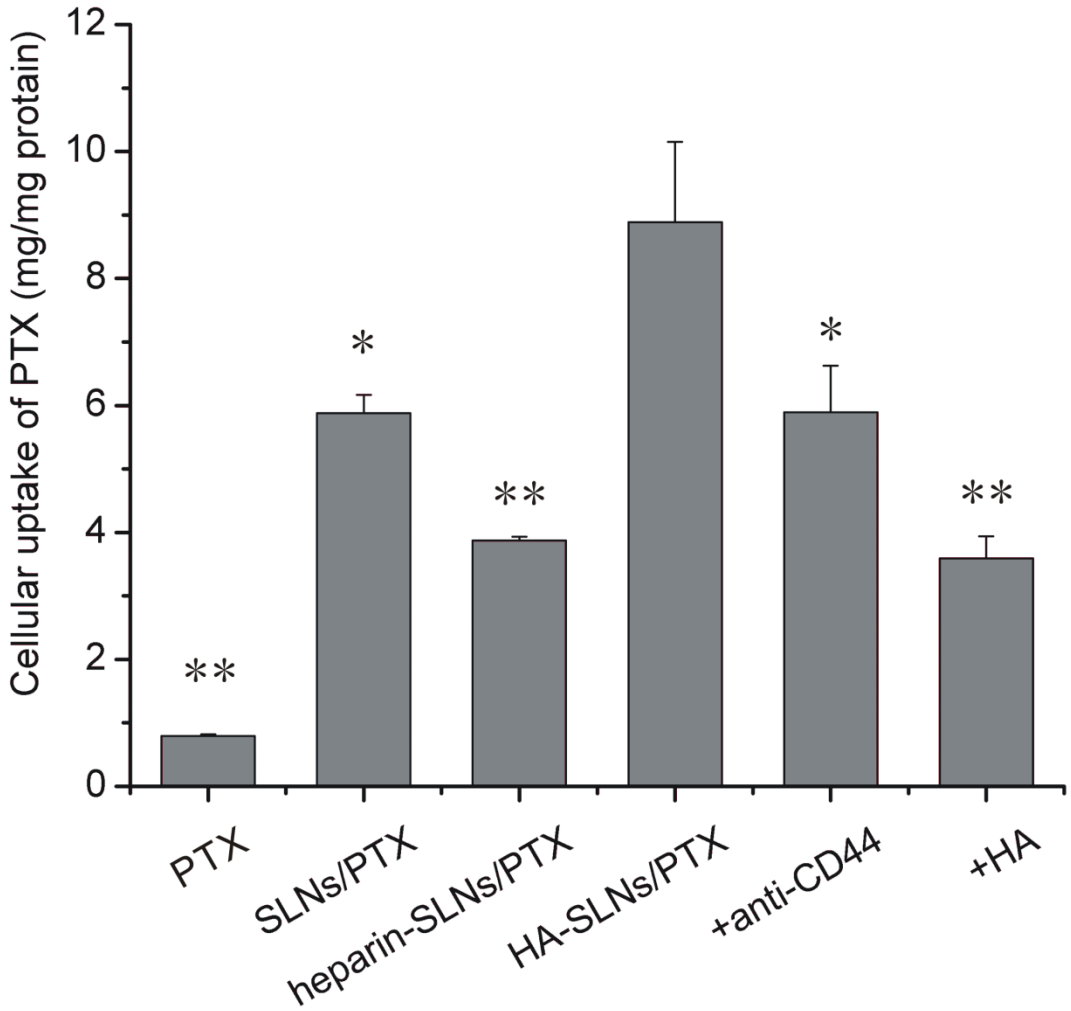

Figure. S1 LC-MS/MS analysis showing the cell uptake efficiency of free PTX, SLNs/PTX, heparin-SLNs/PTX and HA-SLNs/PTX after incubation with B16F10-CD44^{+} cells for 1 h at 37°C. Cell-delivery efficiency of HA-SLNs/PTX in the presence of various inhibitors, anti-CD44 antibody and HA. Data were shown as mean ± SD (n = 3). *$p < 0.05$, **$p < 0.01$, compared with the HA-SLNs/PTX group.

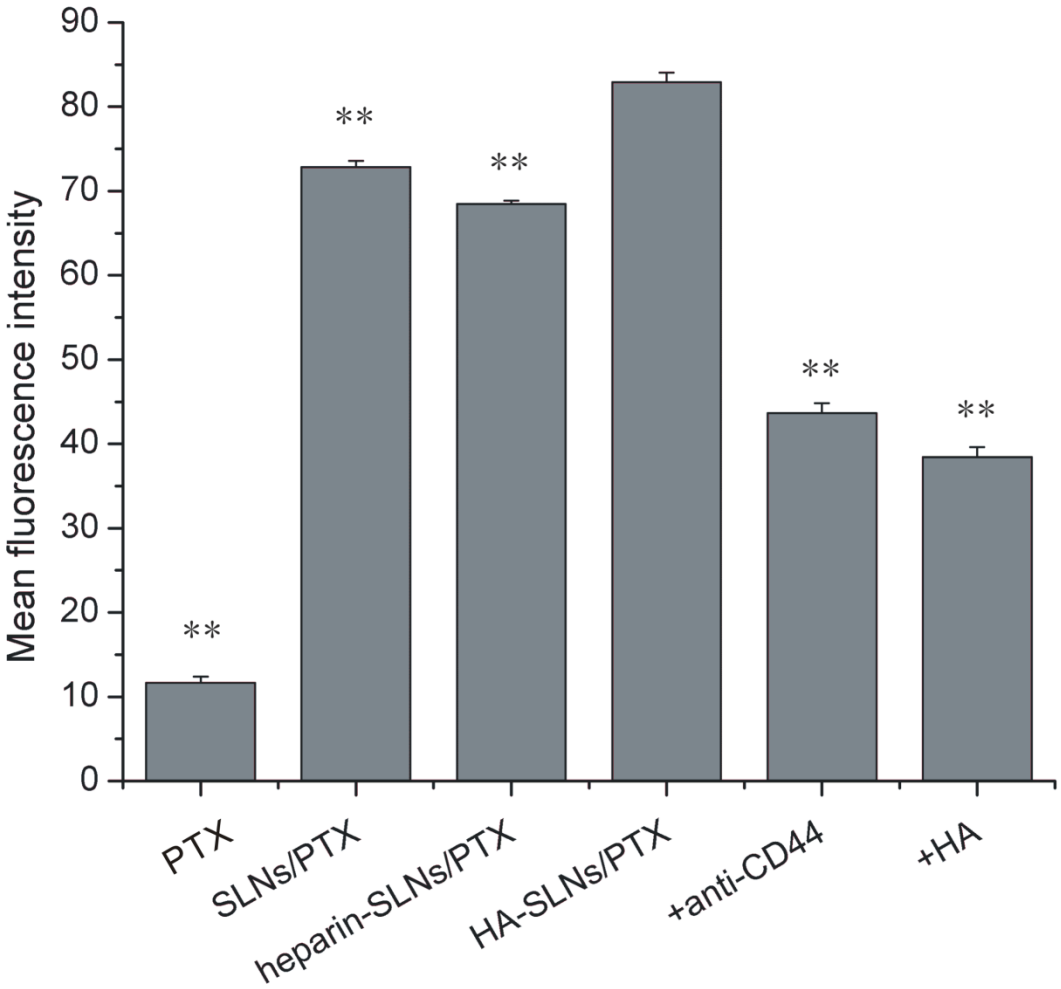

Figure. S2 Flow cytometry analysis showing the cell uptake efficiency on A549 cells. The mean expression of CD44 on the surface of A549 cells was 66.7%. Free PTX (coumarin-6 solution), single SLNs/PTX without HA modification, a similar mucopolysaccharide heparin coating SLNs/PTX and HA-SLNs/PTX (coumarin-6 incorporated in the place of PTX) were incubated with A549 cells for 1 h. The competition assay was performed to determined cell-delivery efficiency of HA-SLNs/$PTX_{(coumarin\text{-}6)}$ in the presence of various inhibitors, HA and anti-CD44 antibody (n = 3). $^{**}p < 0.01$, compared with the HA-SLNs/PTX group.

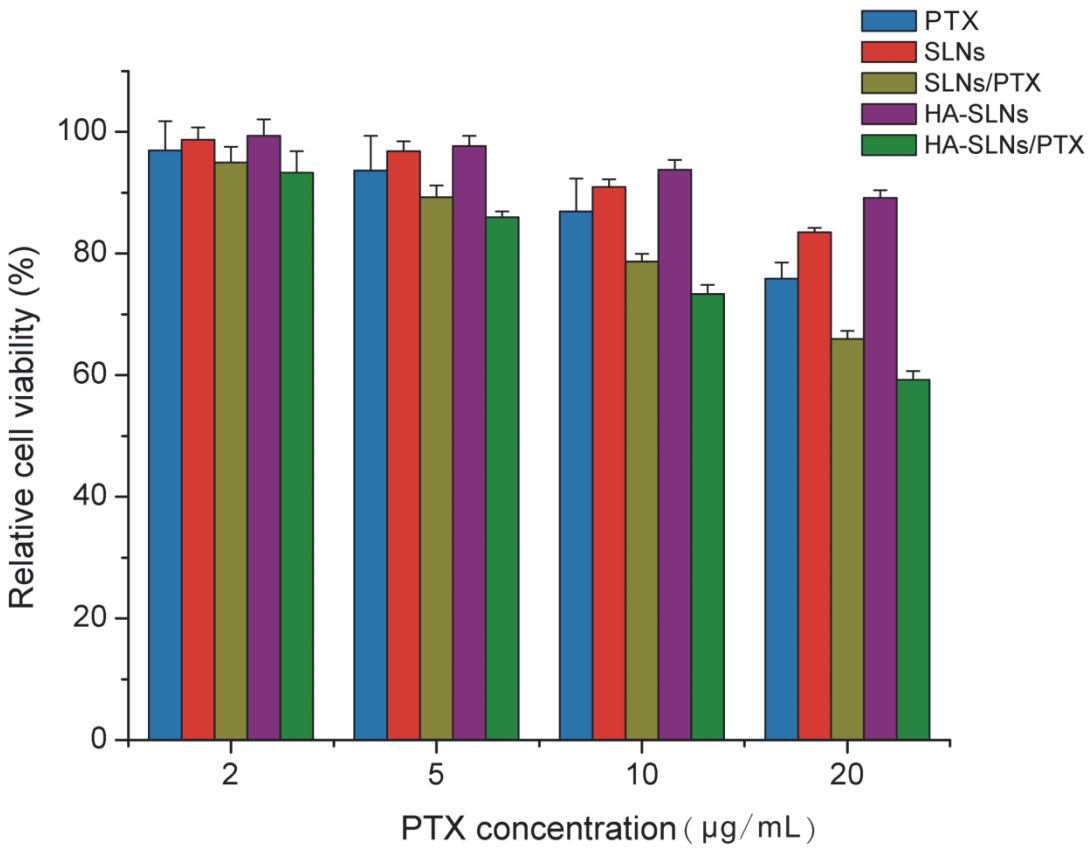

Figure. S3 Cell viability assay for measuring A549 cell number reduction after PTX preparations treatment. It was analyzed by MTT method. The percentage of cell viability was calculated relative to untreated cells and shown as mean ± SD (n = 3).

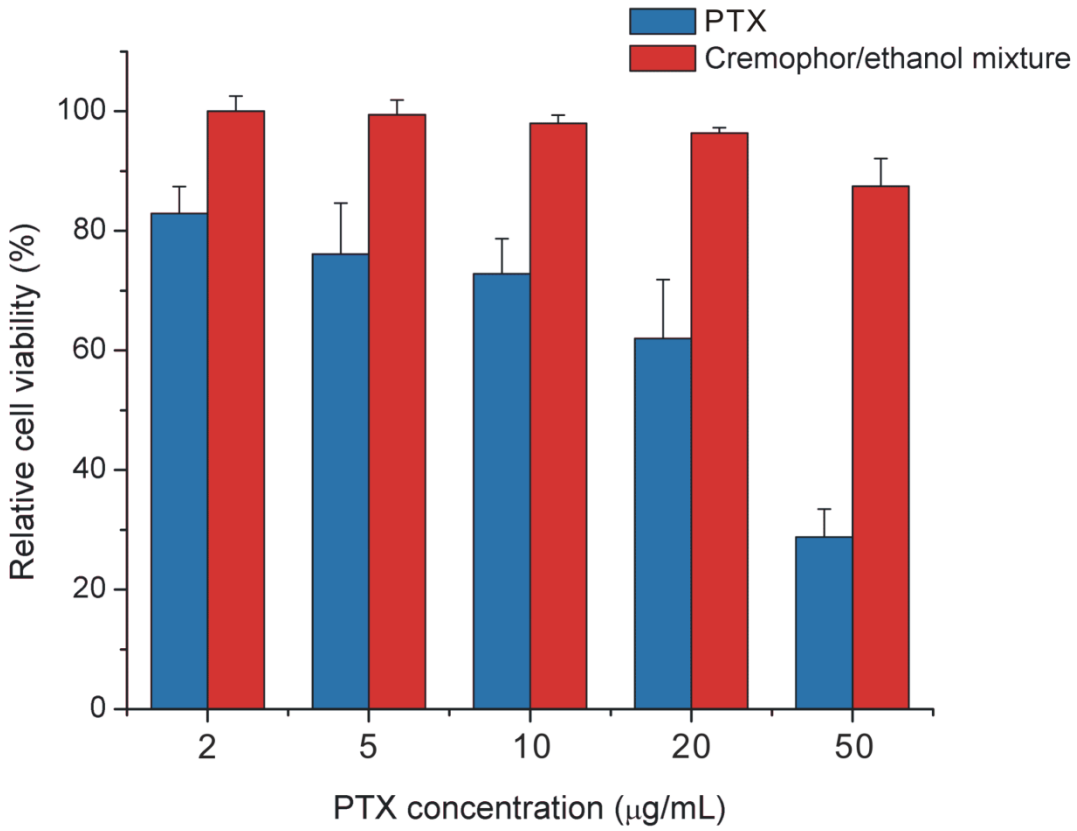

Figure. S4 Cytotoxicity of B16F10-CD44^{+} cells after treatment with commercial PTX and the cremophor/ethanol mixture (1:1, v/v). Cell viability was calculated as a percentage of the result with untreated cells and shown as mean ± SD (n = 3).