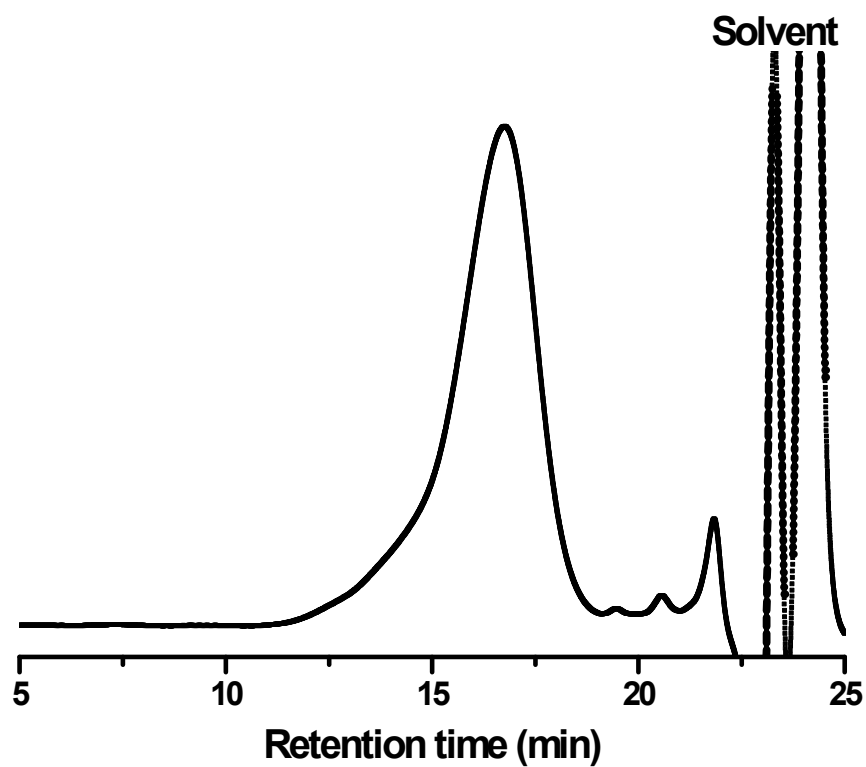
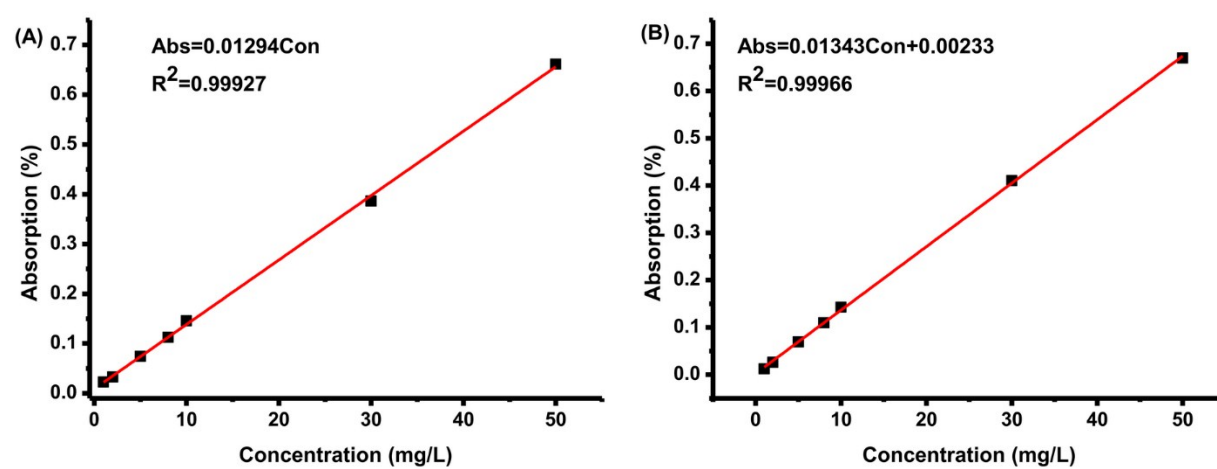


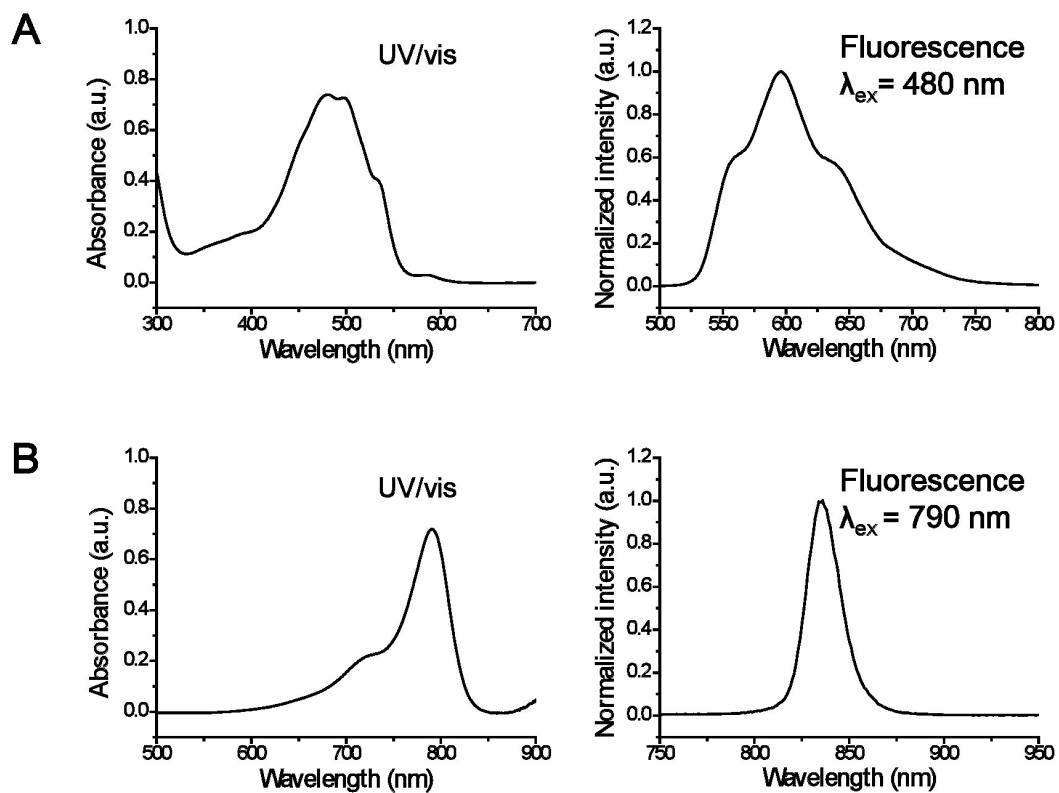
## Supporting information



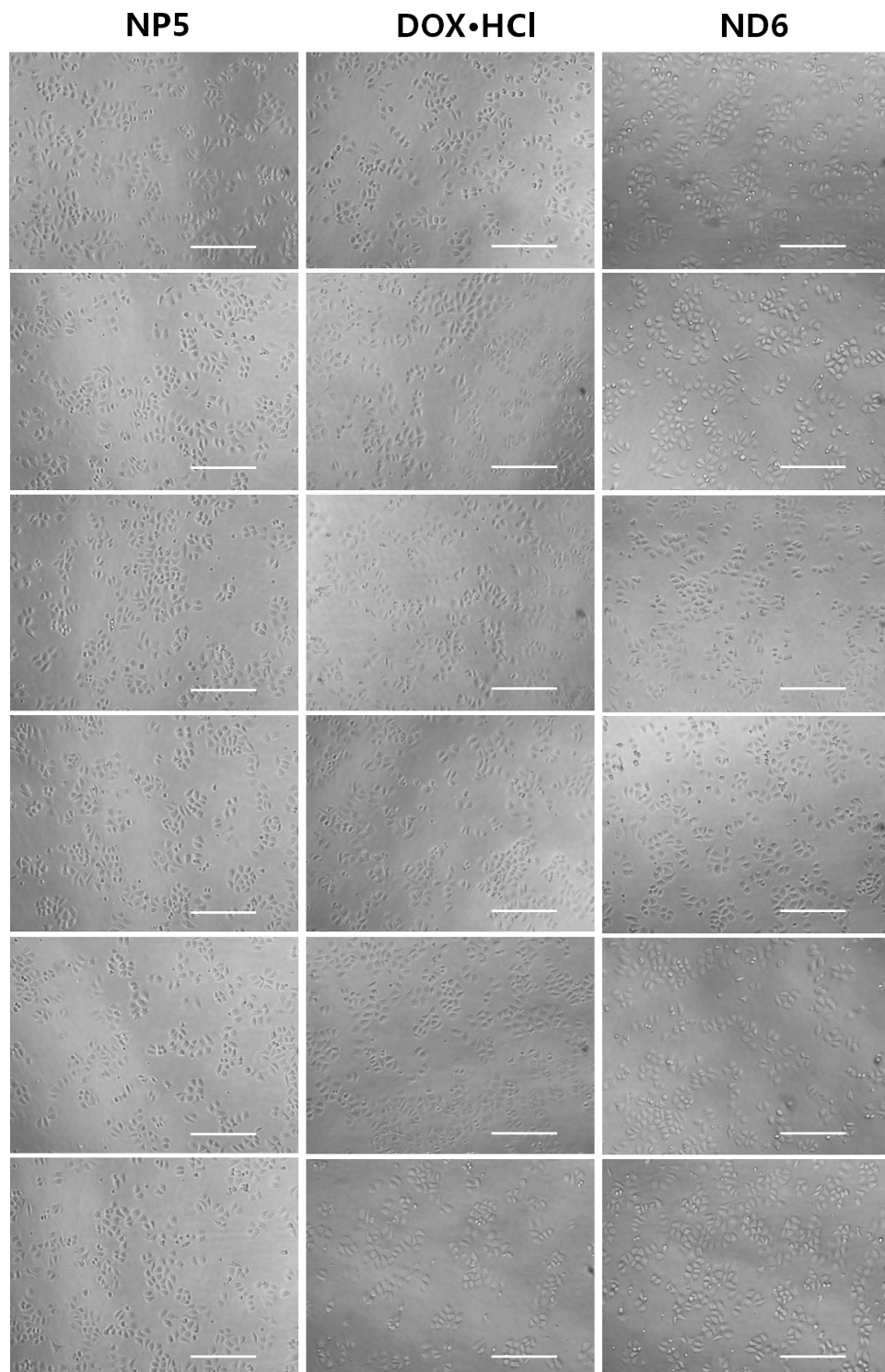
**Figure S1.** GPC curve of PPC-DA.



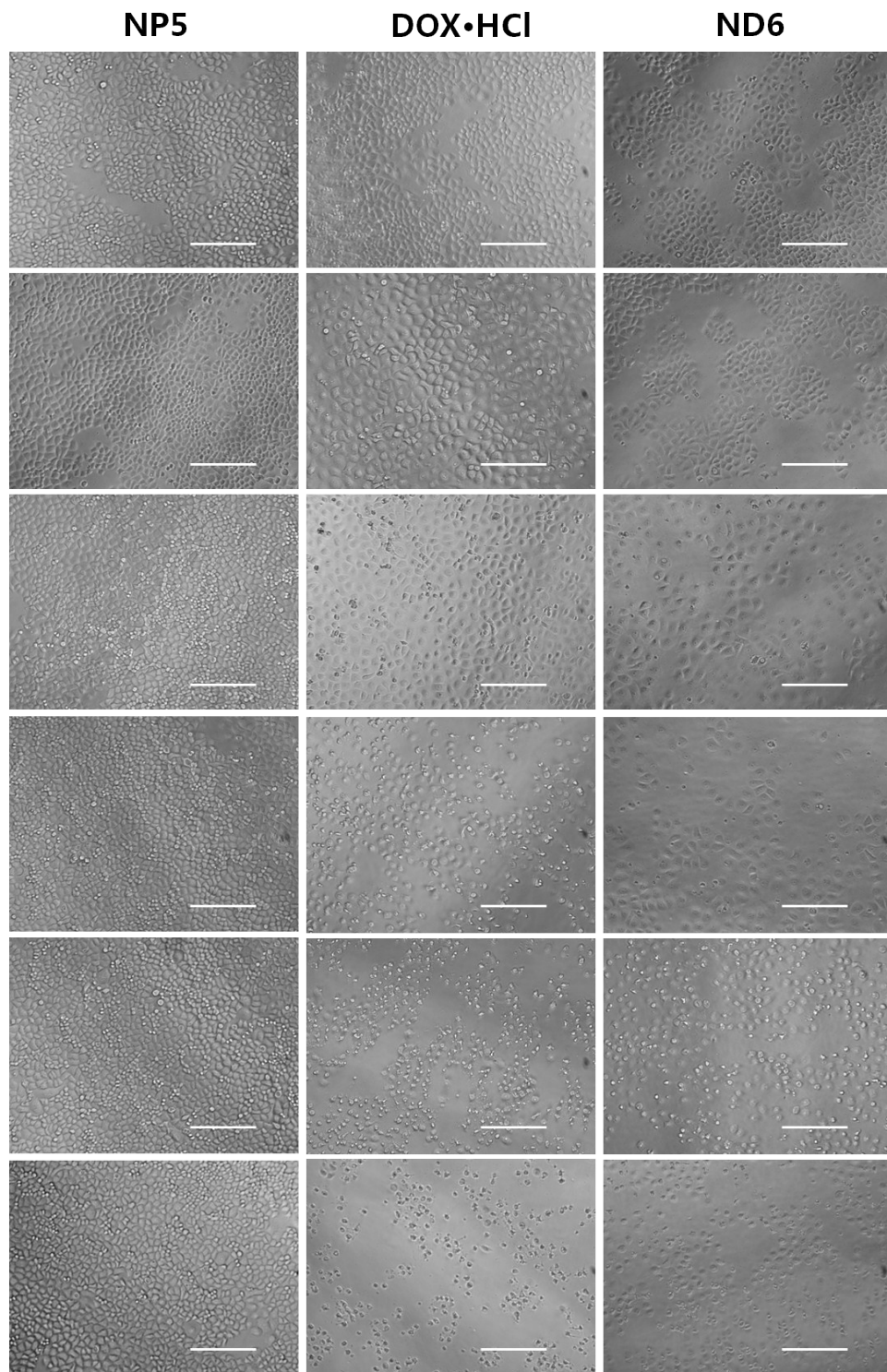
**Figure S2.** Calibration curves of DOX in 0.01 M pH 7.4 PBS (A) and 0.01 M pH 5.8 PBS (B).



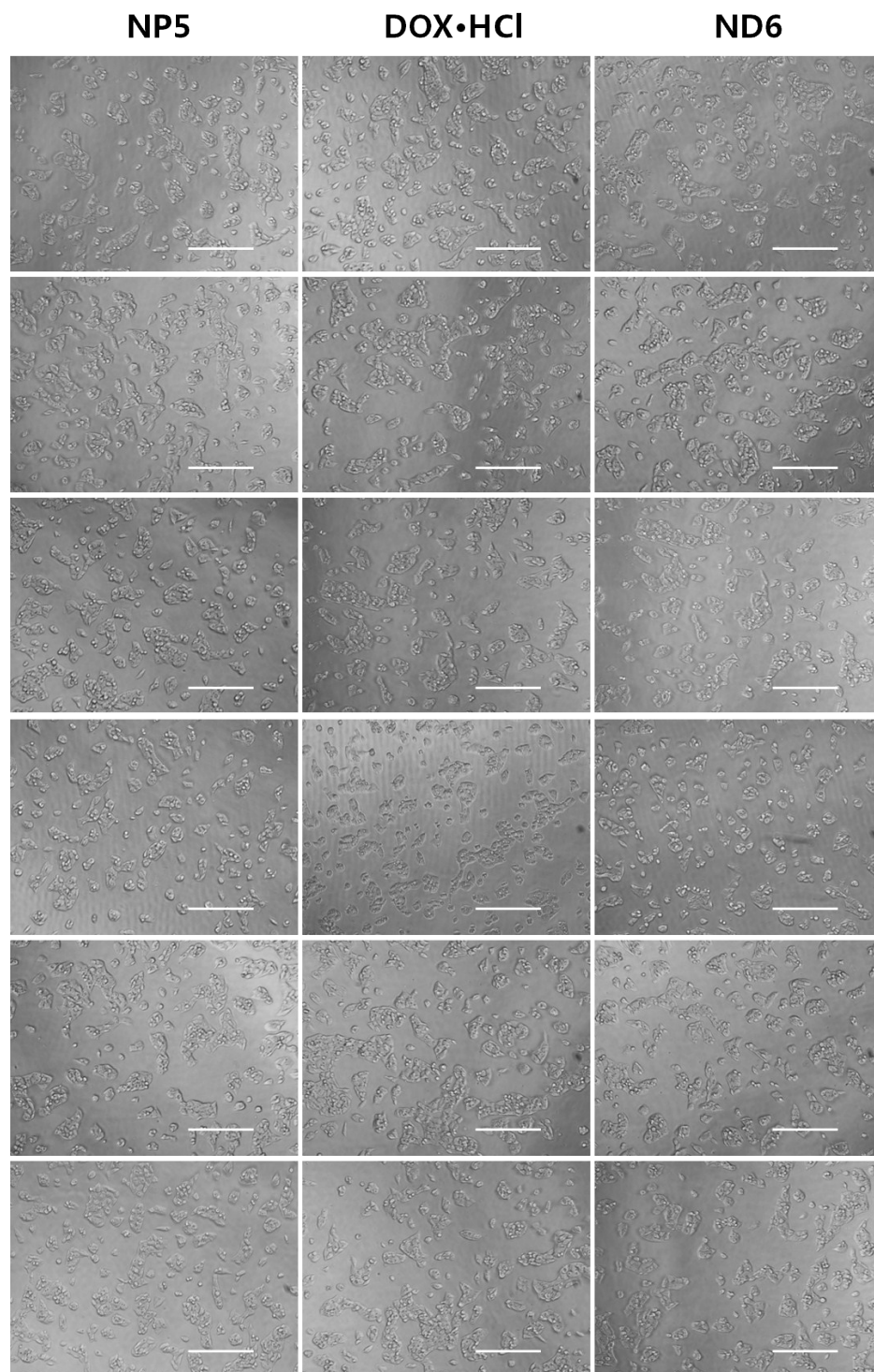
**Figure S3.** The UV/vis and fluorescence spectra of ND6 (A) and IR789 loaded nanoparticles (B) in DMF



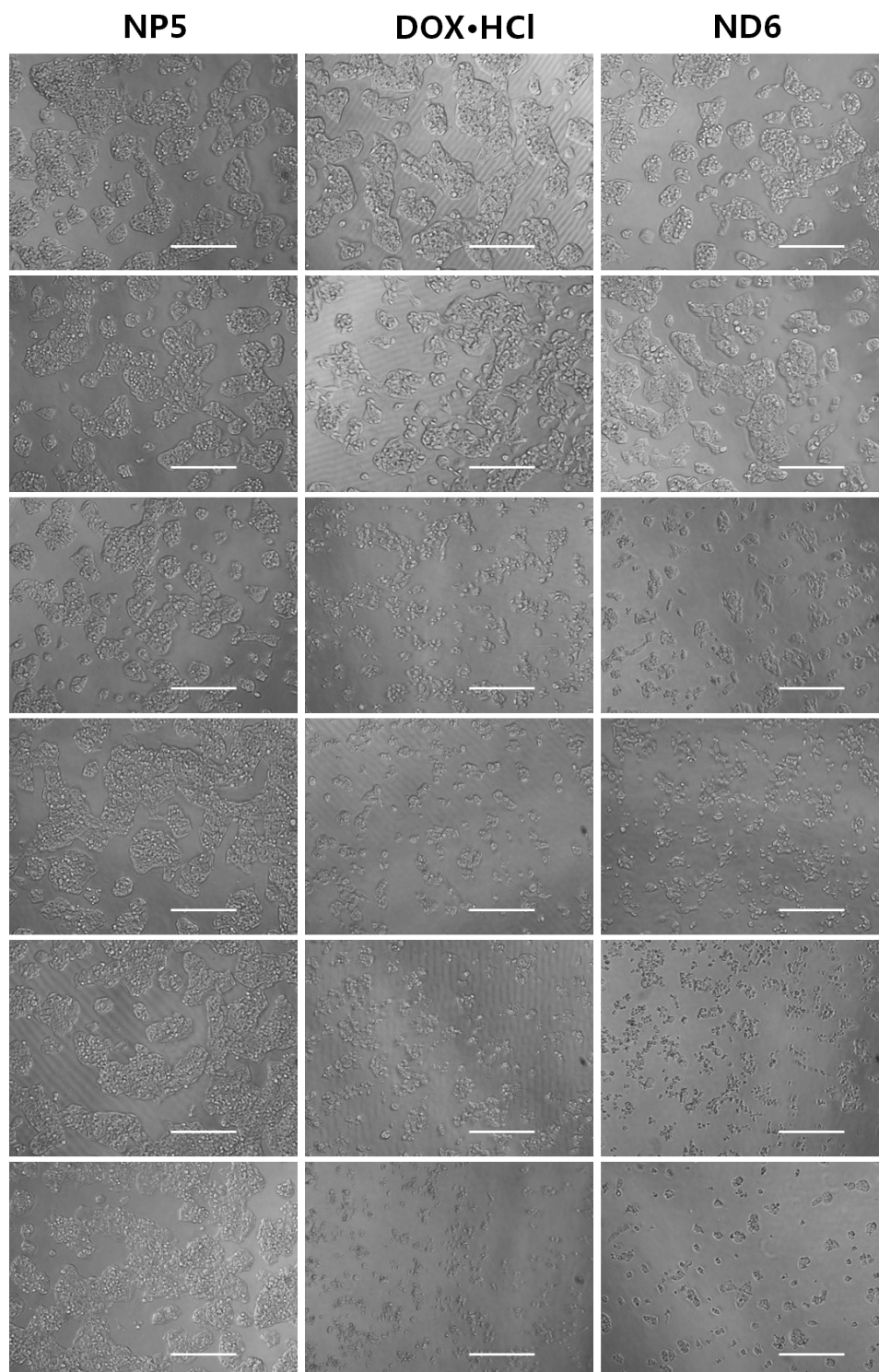
**Figure S4.** Morphologies of HeLa cells incubated with NP5, DOX·HCl, and ND6 instantly. The concentrations of NP5 from top to bottom were 0.01, 0.1, 1, 10, 100, and 1000 mg/L; while those of the DOX were 0.01, 0.1, 1, 2.5, 5, and 10 mg/L. Scale bar 20  $\mu$ m.



**Figure S5.** Morphologies of HeLa cells incubated with NP5, DOX·HCl, and ND6 for 2 days. The concentrations of NP5 from top to bottom were 0.01, 0.1, 1, 10, 100, and 1000 mg/L; while those of the DOX were 0.01, 0.1, 1, 2.5, 5, and 10 mg/L. Scale bar 20  $\mu$ m.

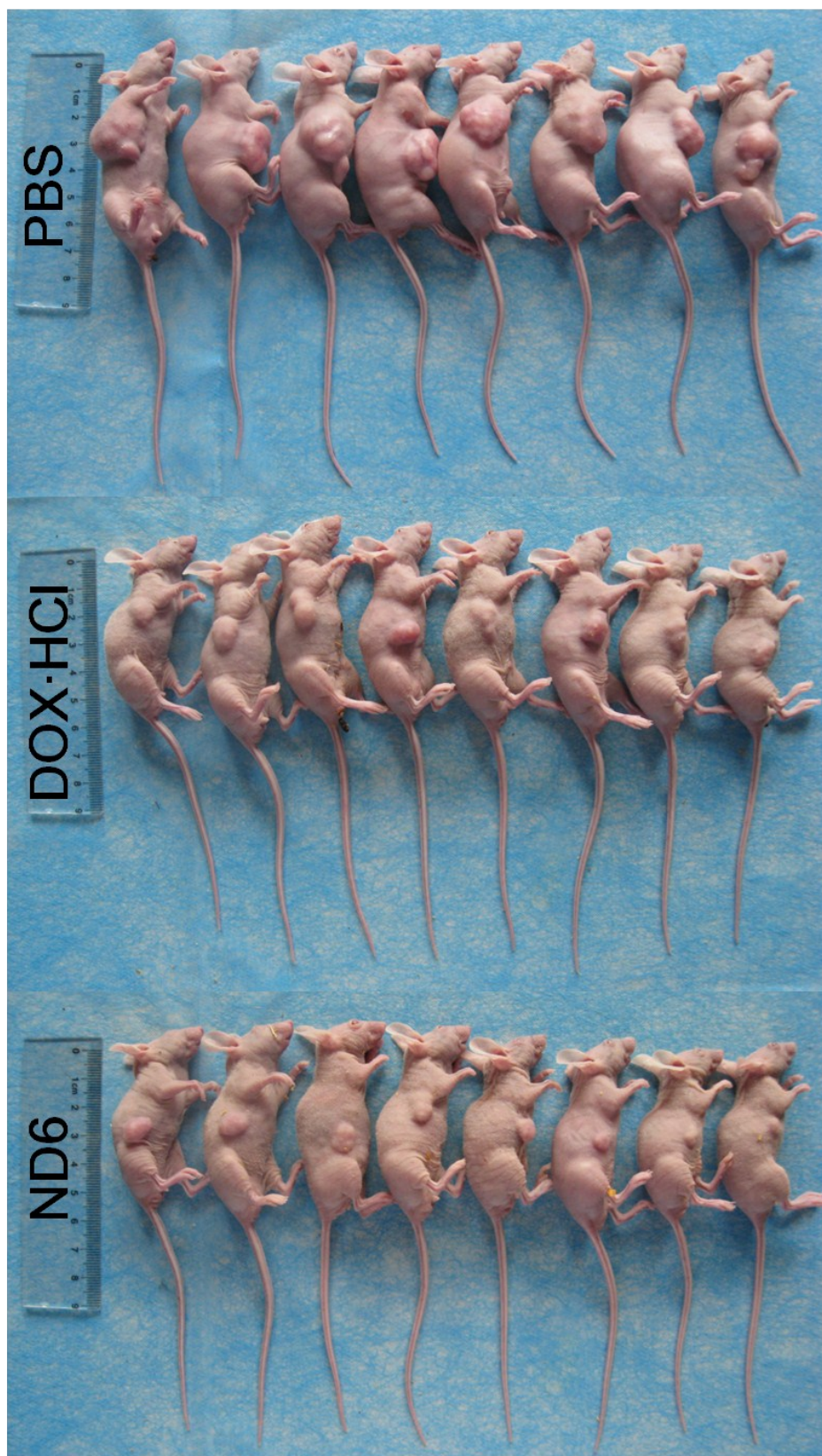


**Figure S6.** Morphologies of HepG2 cells incubated with NP5, DOX·HCl, and ND6 instantly. The concentrations of NP5 from top to bottom were 0.01, 0.1, 1, 10, 100, and 1000 mg/L; while those of the DOX were 0.01, 0.1, 1, 2.5, 5, and 10 mg/L. Scale bar 20  $\mu$ m.



**Figure S7.** Morphologies of HepG2 cells incubated with NP5, DOX·HCl, and ND6 for 2 days. The concentrations of NP5 from top to bottom were 0.01, 0.1, 1, 10, 100, and 1000 mg/L; while those of the DOX were 0.01, 0.1, 1, 2.5, 5, and 10 mg/L. Scale bar 20  $\mu$ m.





**Figure S8.** Photographs of tumor-bearing mice treated by PBS, DOX·HCl, or ND6.