

Electronic Supplementary Information

of

**Multi-functional drug delivery system based on polyphenol for efficient
tumor inhibition and metastasis prevention**

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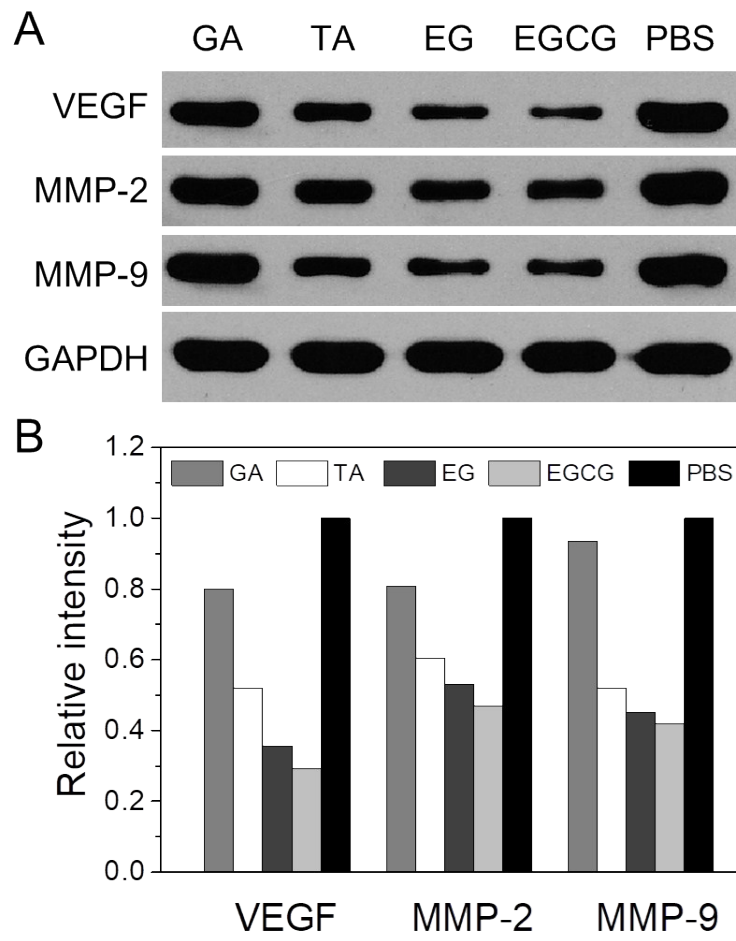


Fig. S1. Protein expression of MMP-2, MMP-9 and VEGF determined by Western blot.

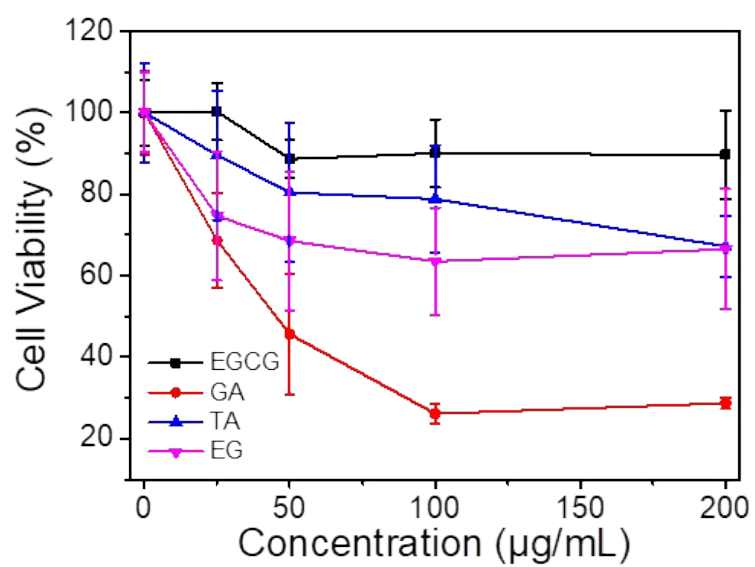


Fig. S2. Cell viability assay of polyphenol incubated with COS7 cells.

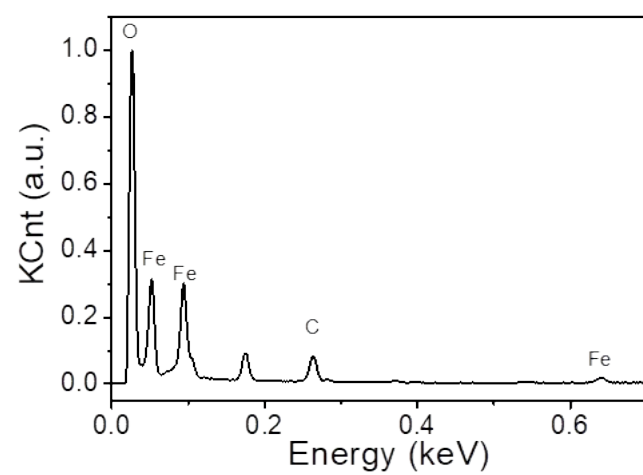


Fig. S3. Dispersive X-Ray photoelectron spectrum of EINP.

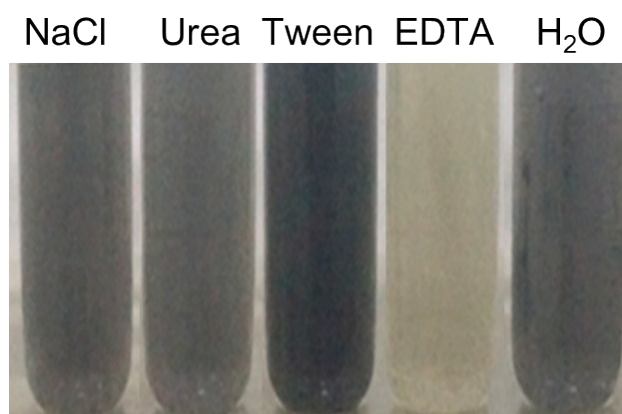


Fig. S4. The dissociation behaviors of EINP nano-complexes in NaCl, Urea, Tween 20, EDTA and H₂O.

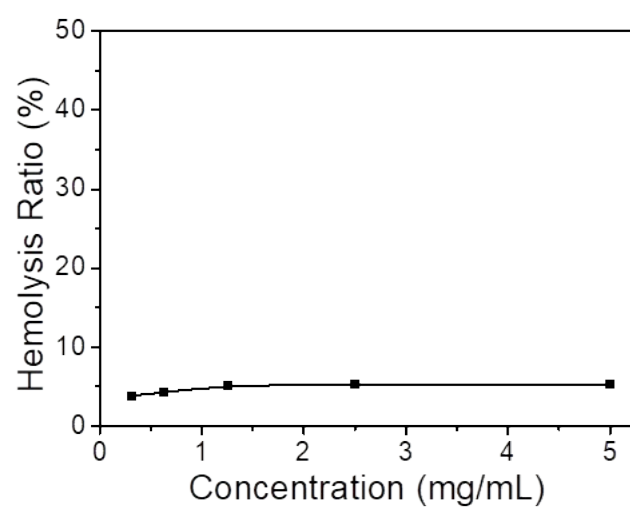


Fig. S5. Hemolysis ratio of EINP.

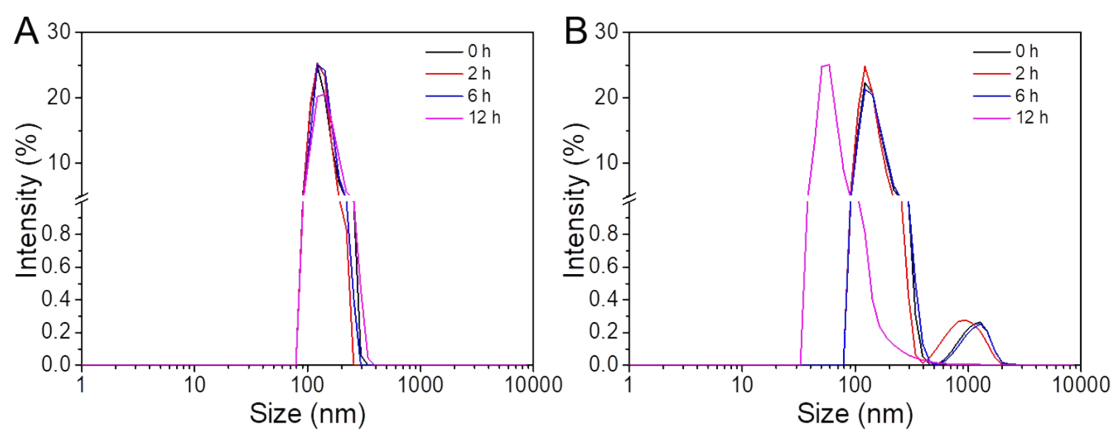


Fig. S6. Particle sizes of EINP@DOX at (A) pH 7.4 and (B) pH 5.6 with different incubation time.

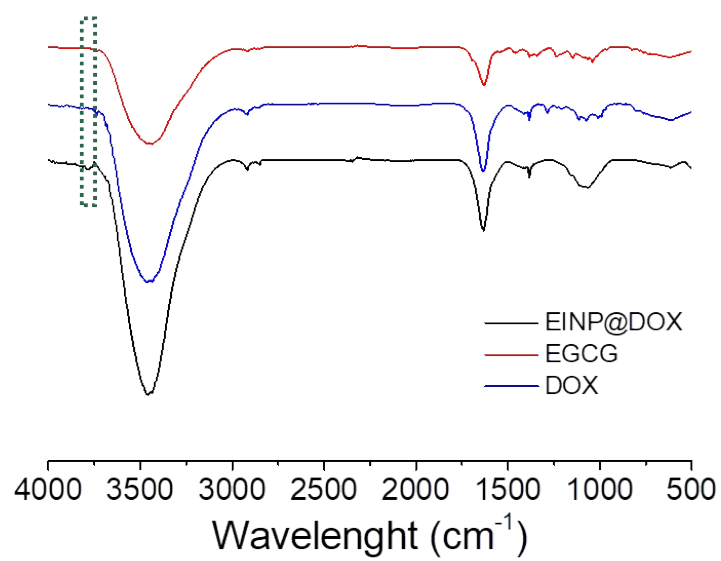


Fig. S7. FT-IR spectra of DOX, EGCG and EINP@DOX.

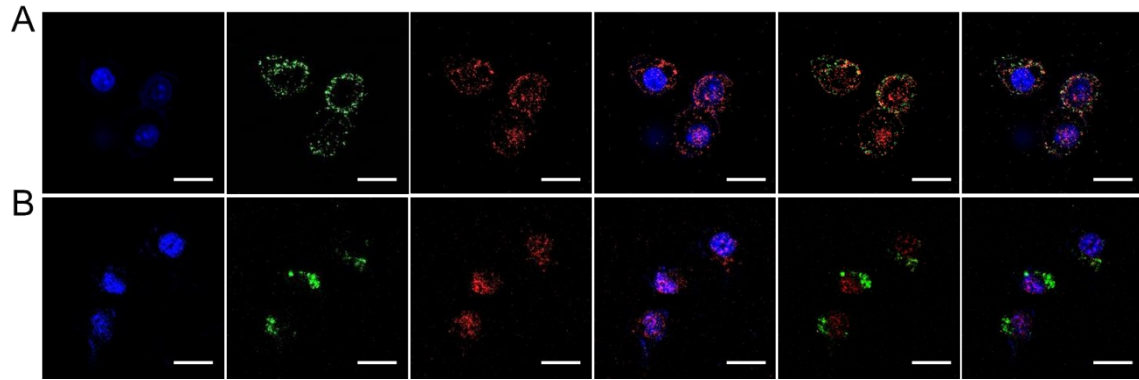


Fig. S8. Internalization of EINP@DOX in 4T1 cells for (A) 4 h and (B) 8 h by CLSM, nucleus was stained with Hoechst 33342 (blue signal), endosome was labeled by LysoTracker Green (green signal), DOX (red signal), the scale bar was 20 μm .

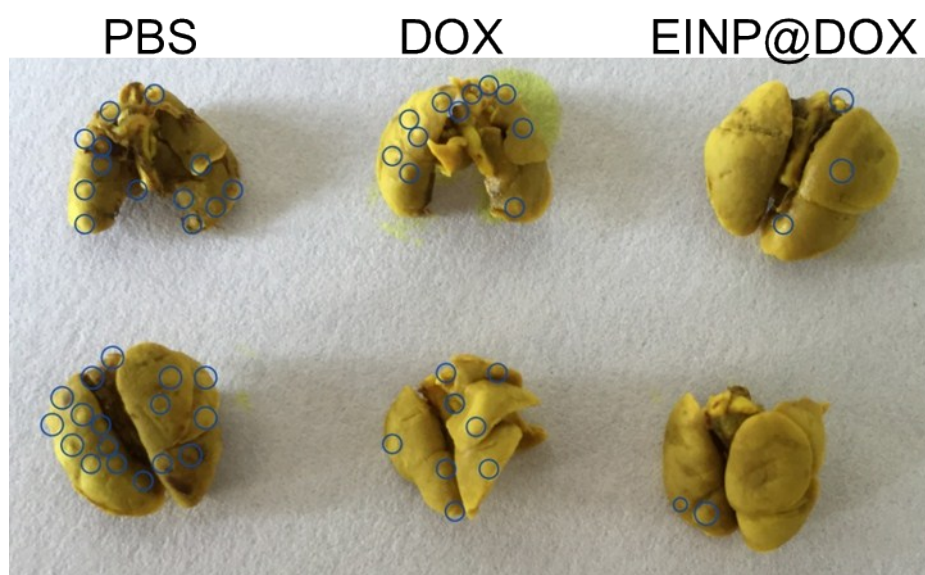


Fig. S9. Spontaneous lung metastases formation of 4T1 cells after 15 days of PBS, DOX or EINP@DOX treatments.

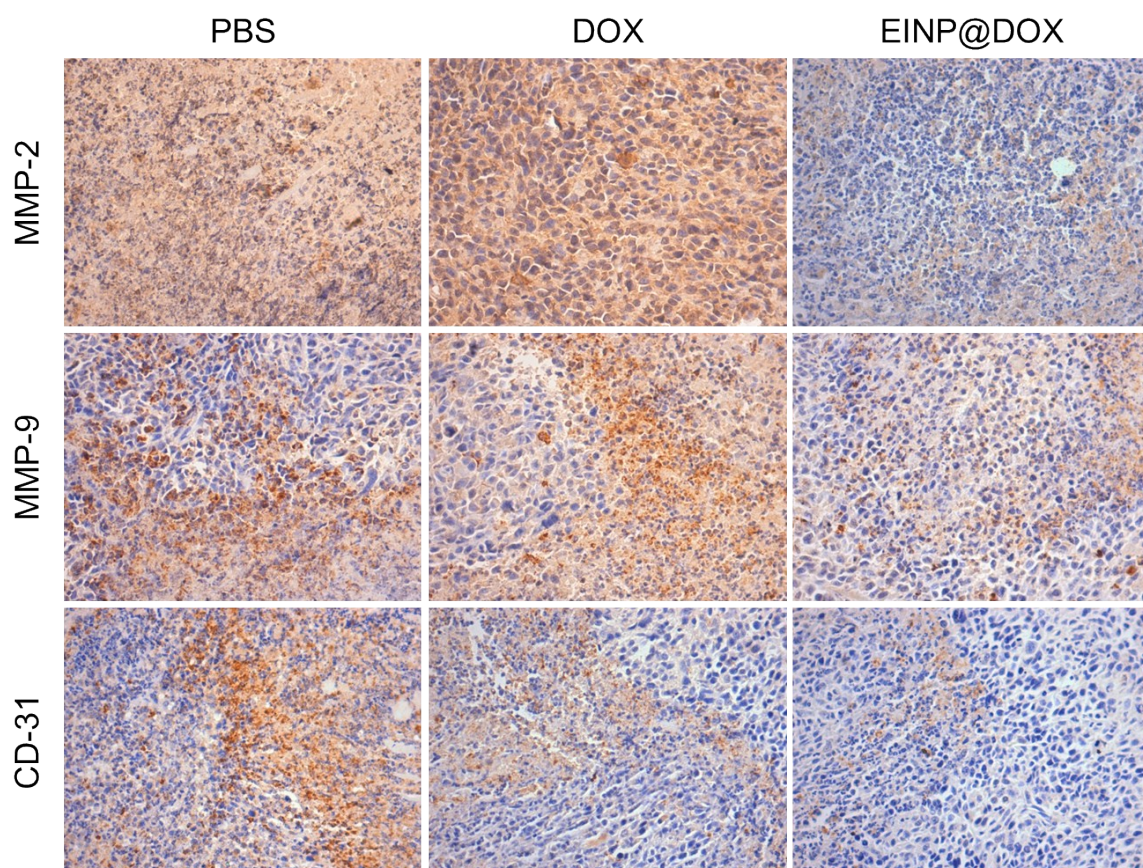


Fig. S10. Immunohistochemical staining of MMP-2, MMP-9 and CD-31 antibody in tumor tissues at the 25th day after treatment of samples, the magnification was $60\times$.