

Supporting Information

Synergistic Combination Chemotherapy of Carrier-free Celastrol and Doxorubicin Nanocrystals for Overcoming

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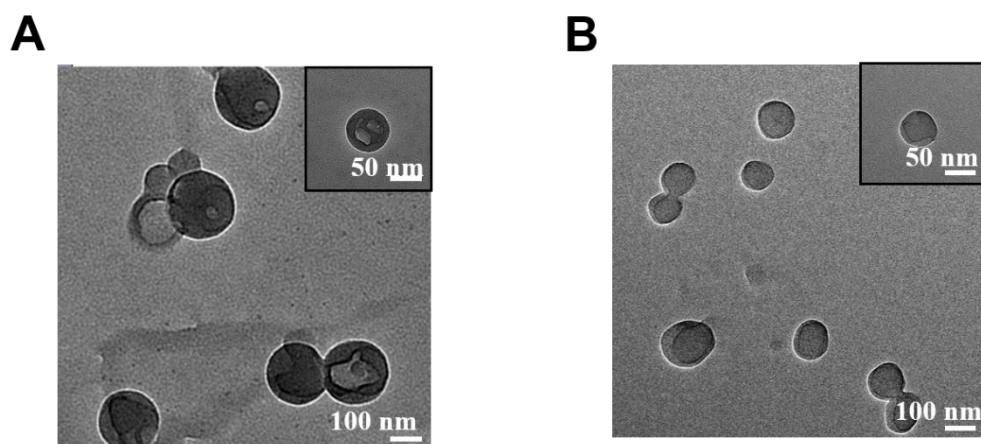


Figure S1. TEM images of (A) free CST and (B) carrier-free CST/DOX NPs nanostructure.

Table S1. Size distribution, zeta potential and polydispersity index (PDI) of free CST nanostructure and carrier-free CST/DOX NPs.

	Zeta-average	Zeta-potential	PDI
CST NPs	113.8 nm	-7.6 mV	0.086
CST/DOX NPs	125.7 nm	23.8 mV	0.119

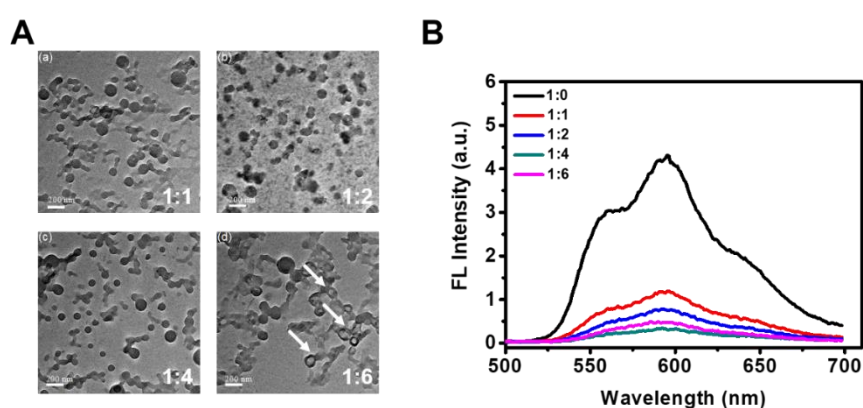


Figure S2. Different molar ratios of DOX to CST. (A) TEM images of CST/DOX NPs assembled from different molar ratios of DOX to CST (1:1, 1:2, 1:4 and 1:6). (B) Fluorescence spectra of DOX and CST/DOX NPs in aqueous solution. λ_{ex} (DOX) = 475 nm.

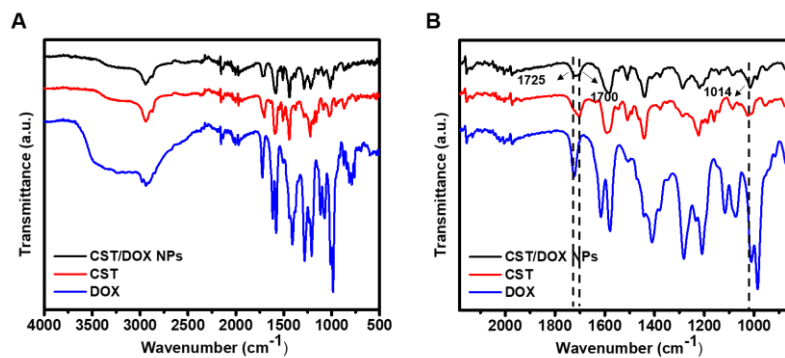


Figure S3. FTIR spectra of CST, DOX, CST/DOX NPs. (A) FTIR spectra of CST, DOX and CST/DOX NPs. (B) Partial FTIR of CST, DOX and CST/DOX NPs in range of 825 to 2125 cm^{-1}

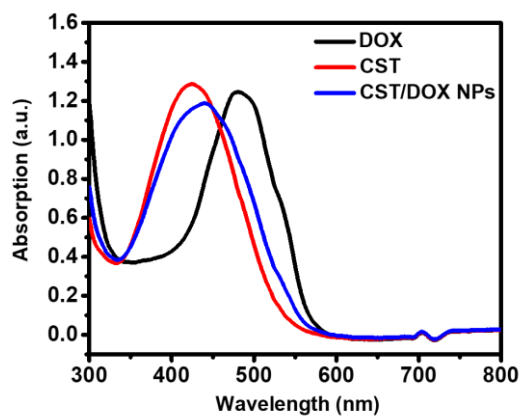


Figure S4. UV spectra of CST, DOX, CST/DOX NPs

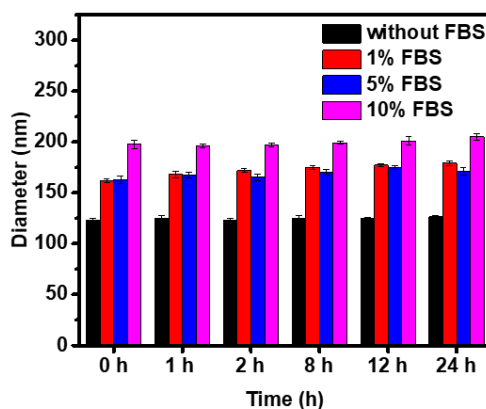


Figure S5. Stability of CST/DOX NPs in water containing 1%, 5% and 10% FBS respectively.

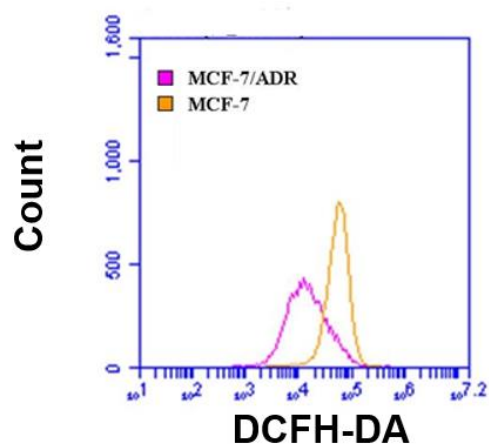


Figure S6. The level of ROS in MCF-7 and MCF-7/ADR cells measured by flow cytometry.

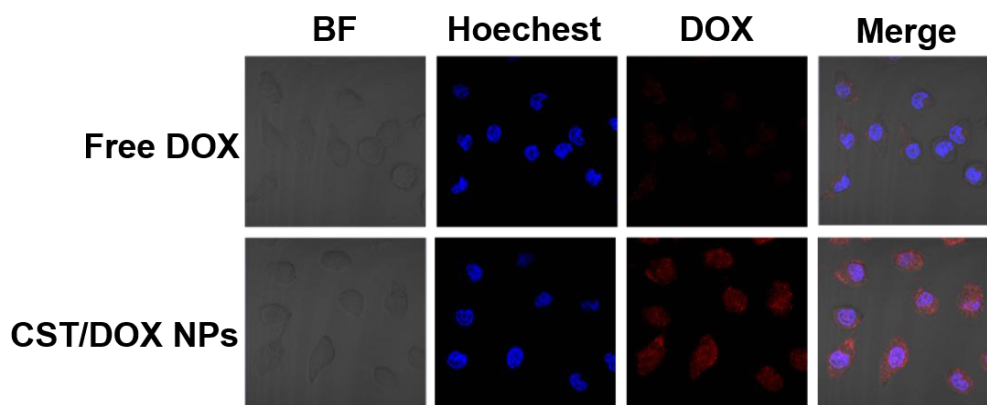


Figure S7. Confocal images of MCF-7/ADR cells after incubation with free DOX and CST/DOX NPs. BF, bright field images.

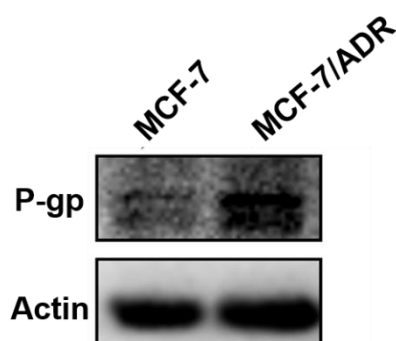


Figure S8. The level of P-gp expression in MCF-7 and MCF-7/ADR cells.