Supporting Information

A reactive oxygen species (ROS)-responsive low molecular weight gel co-loaded with Zn(II) phthalocyanine tetrasulfonic acid and doxorubicin for combined chemo-photodynamic therapy

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Table S1. The critical gel concentrations and gelation behaviors of gelator in different solvents.

Entry	Solvents	Gelator CGC at 37 ºC (mg/mL)	Control Gelator CGC at 37 ºC (mg/mL)
1	Cyclohexane	I[a]	I
2	Toluene	I	I
3	Xylene	I	I
4	Chloroform	I	I
5	Dichloromethane	I	I
6	Methol	G[b] (10 mg/mL)	G (10 mg/mL)
7	Ethanol	G (10 mg/mL)	G (10 mg/mL)
8	Ethyl acetate	I	I
9	Diethyl ether	I	S[c]
10	Tetrahydrofuran	I	I
11	Acetone	S	S
12	Dimethyl sulfoxide	S	S
13	PEG200	S	G (5 mg/mL)
14	PEG200:H_2O (5:1−1:1)	G (30 mg/mL)	G (5 mg/mL)

a) I: insoluble, if the gelator is completely insoluble in the solvent;

b) G: gel, if the gelator is able to gelate the solvent;

c) S: solution, if the gelator is completely soluble in the solvent.

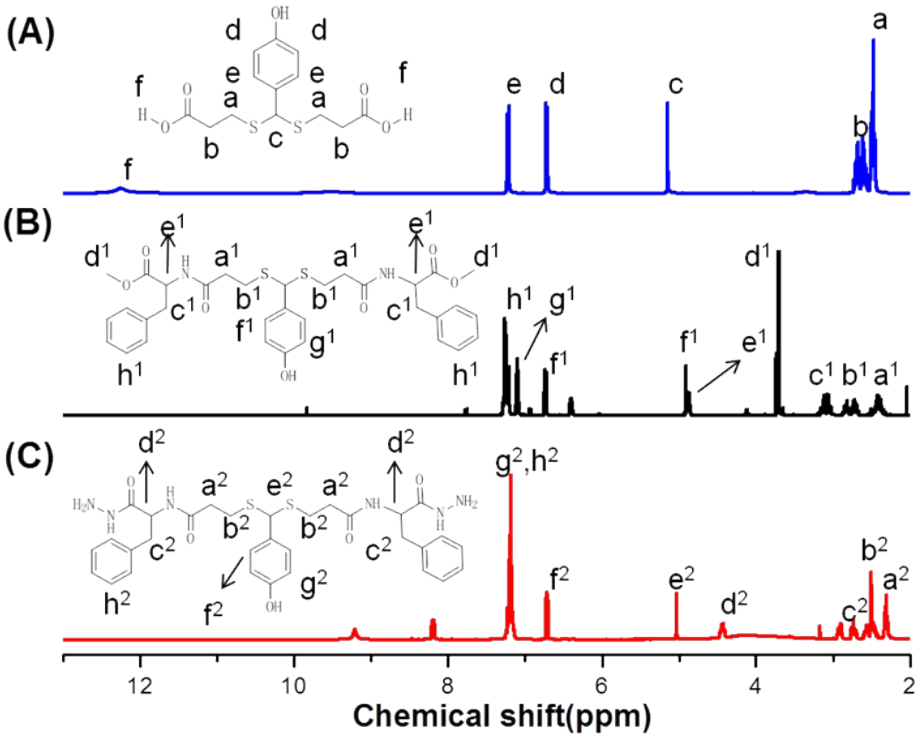

Fig. S1. The ^{1}H NMR spectra of TK (A), Phe-TK-Phe (B), and gelator (C) in DMSO-d_6, $CDCl_3$, and DMSO-d_6, respectively.

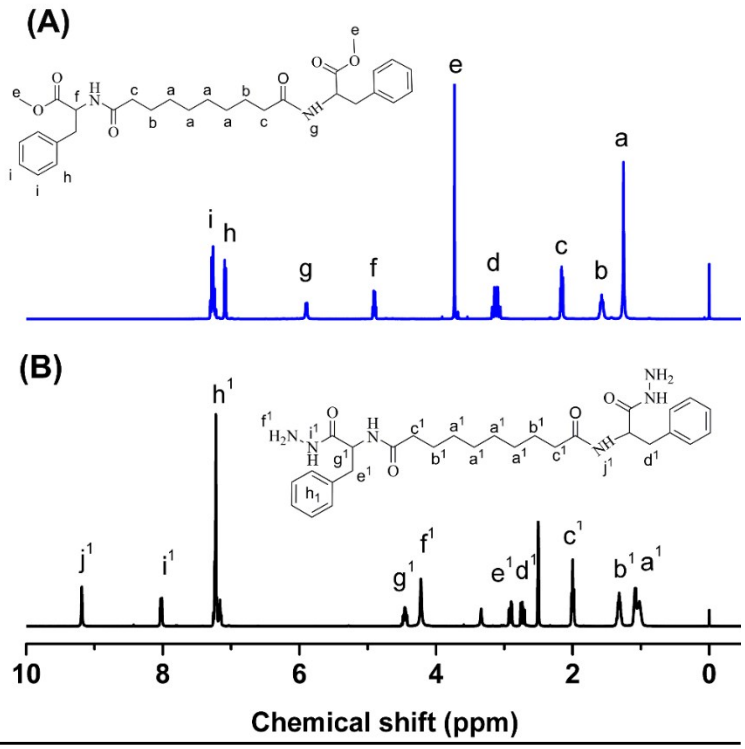

Fig. S2. The ^{1}H NMR spectra of the control gelator (B) and its precursor (A) in $CDCl_3$ and DMSO-d_6, respectively.

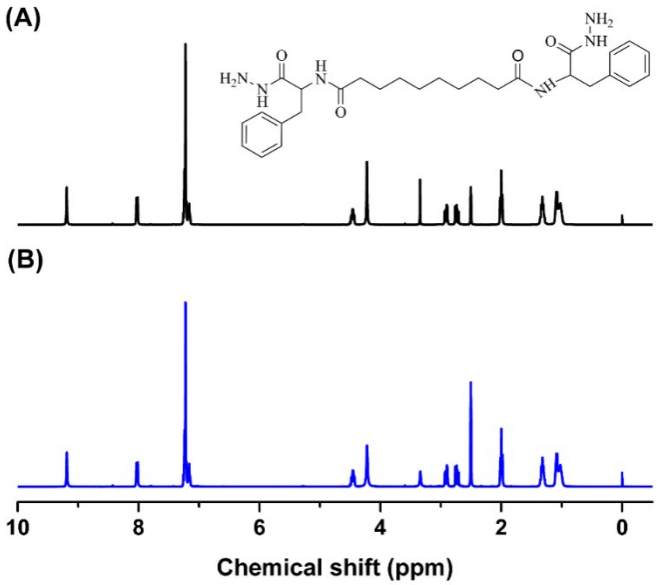

Fig. S3. ^{1}H NMR spectra of gelator before (A) and after (B) treatment of ROS stimulus where Fenton reagent was used to mimic ROS conditions in DMSO-d_6.

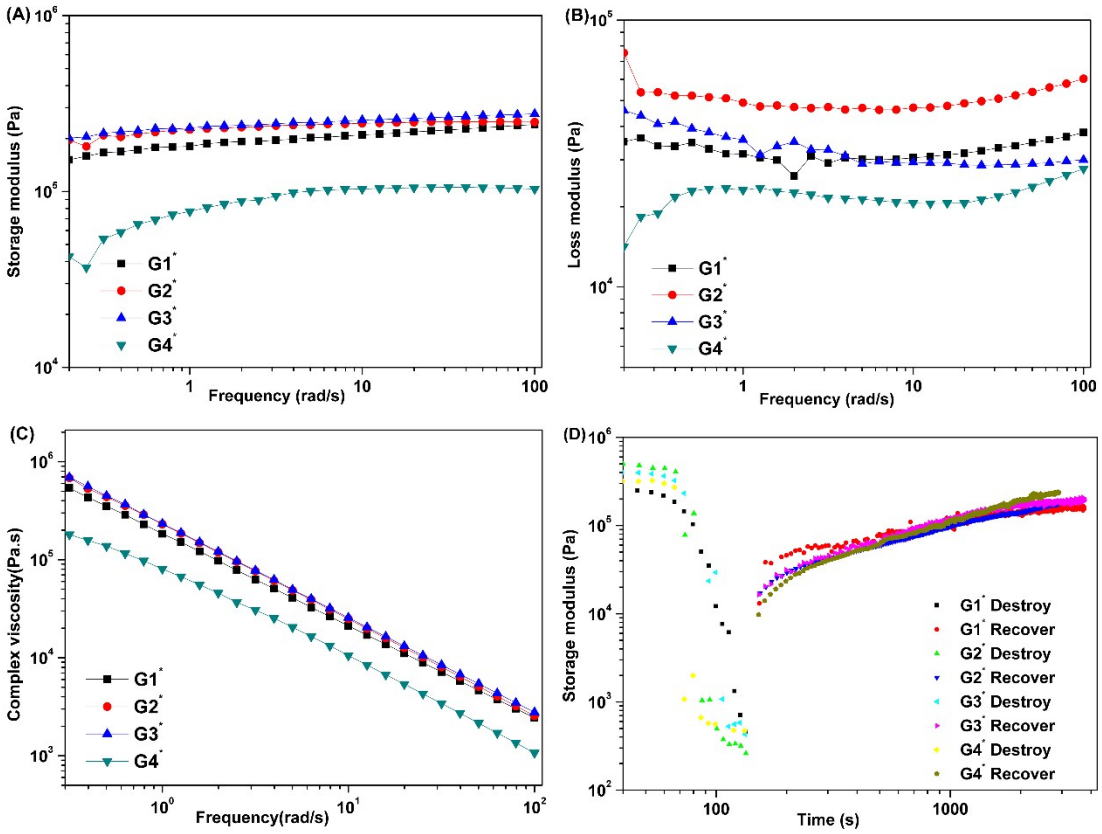

Fig. S4. The rheological properties of control blank gel and its drug-loaded gels. (A) Storage modulus as a function of angular frequency of the gels; (B) loss modulus as a function of angular frequency of the gels; (C) dynamic complex viscosity as a function of angular frequency of the gels;

and (D) destroy and recover of the gels.

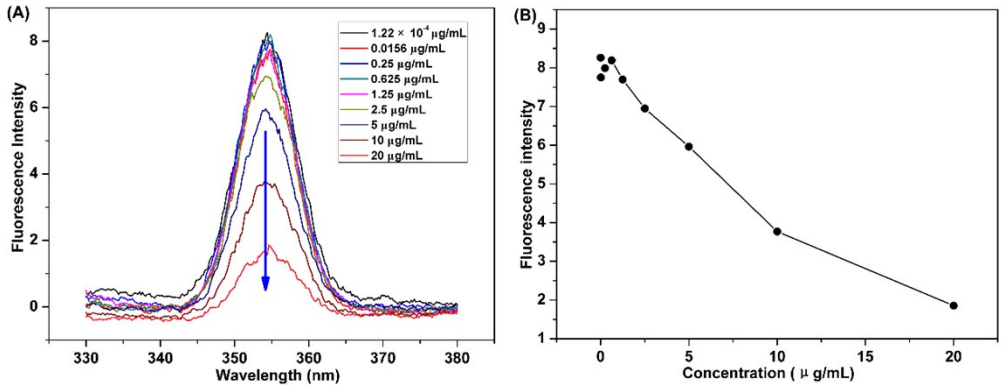

Fig. S5. The fluorescence intensity of $ZnPCS_4$ at different concentrations (A) and the concentration effect on the fluorescence intensity of $ZnPCS_4$ (B).

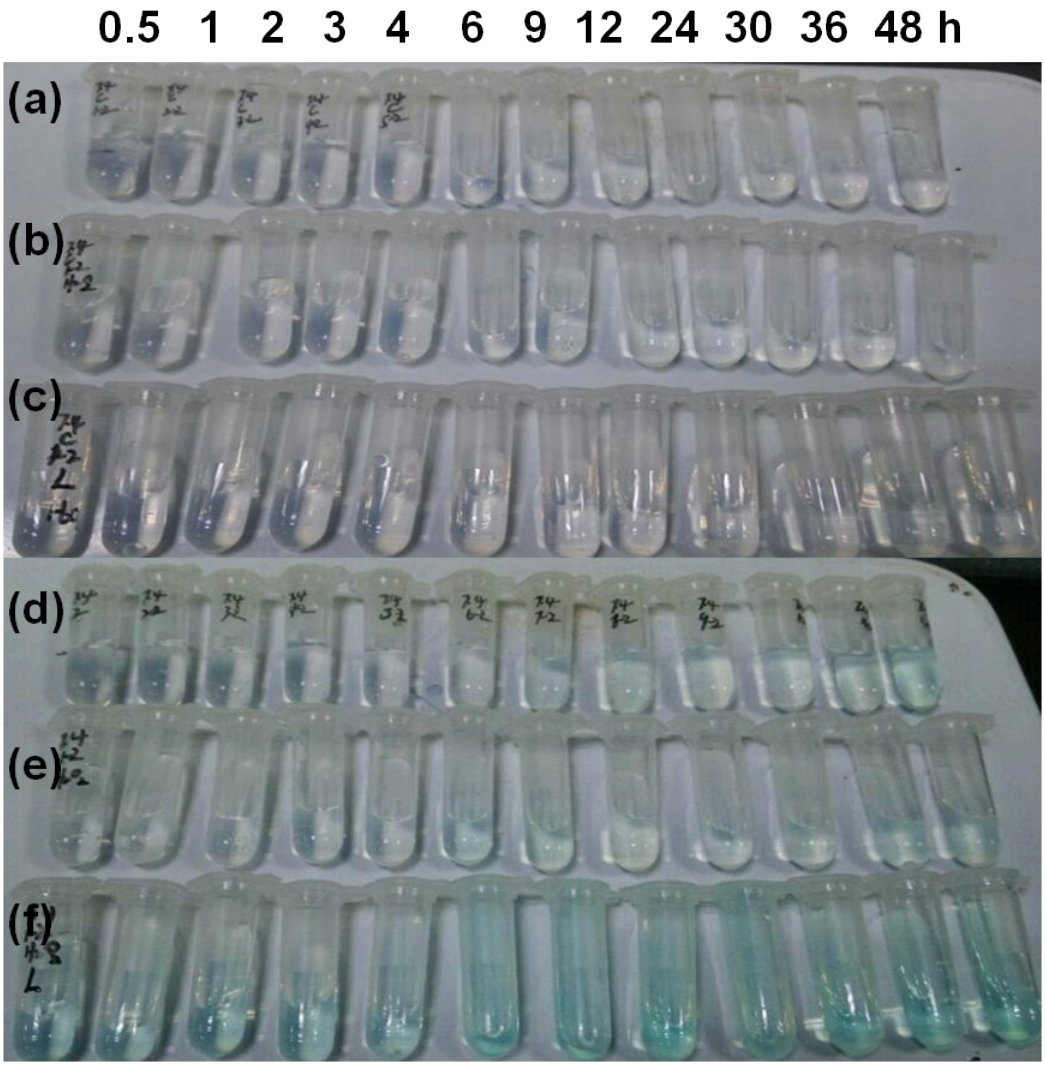

Fig. S6. The images of release medium of DOX-$ZnPCS_4$-coloaded control gel (a, b, and c) and DOX-$ZnPCS_4$-coloaded gel (d, e, and f) at different time points in different conditions. (a, d) PBS (pH 7.4), (b, e) PBS (pH 7.4) with 500 mM H_2O_2, and (c, f) PBS (pH 7.4) with 500 mM H_2O_2 and

irradiation.

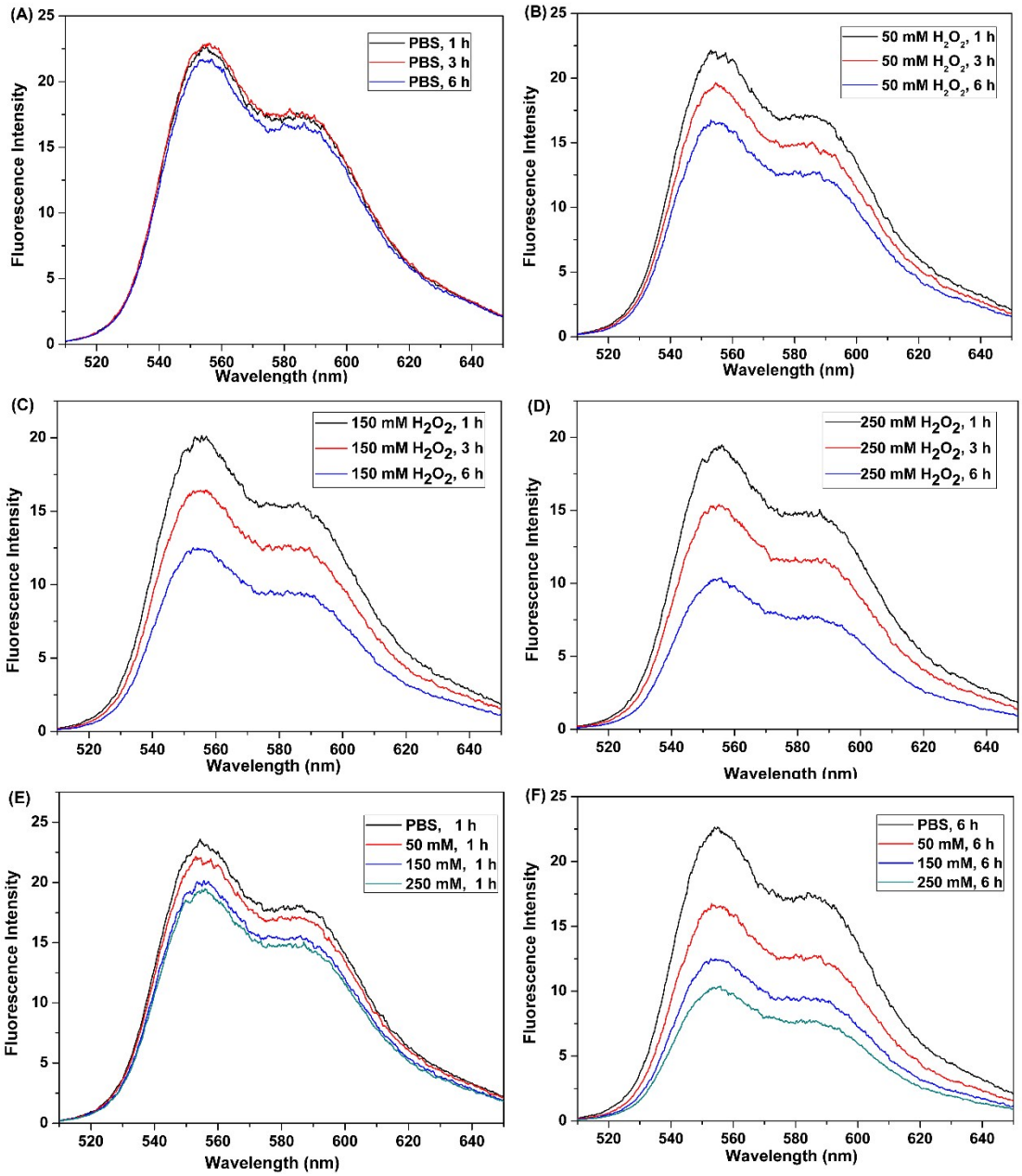

Fig. S7. The fluorescence intensity of DOX at different concentrations of H_2O_2 (0, 50, 150, and 250 mM) and incubated for different times (1, 3, and 6 h).

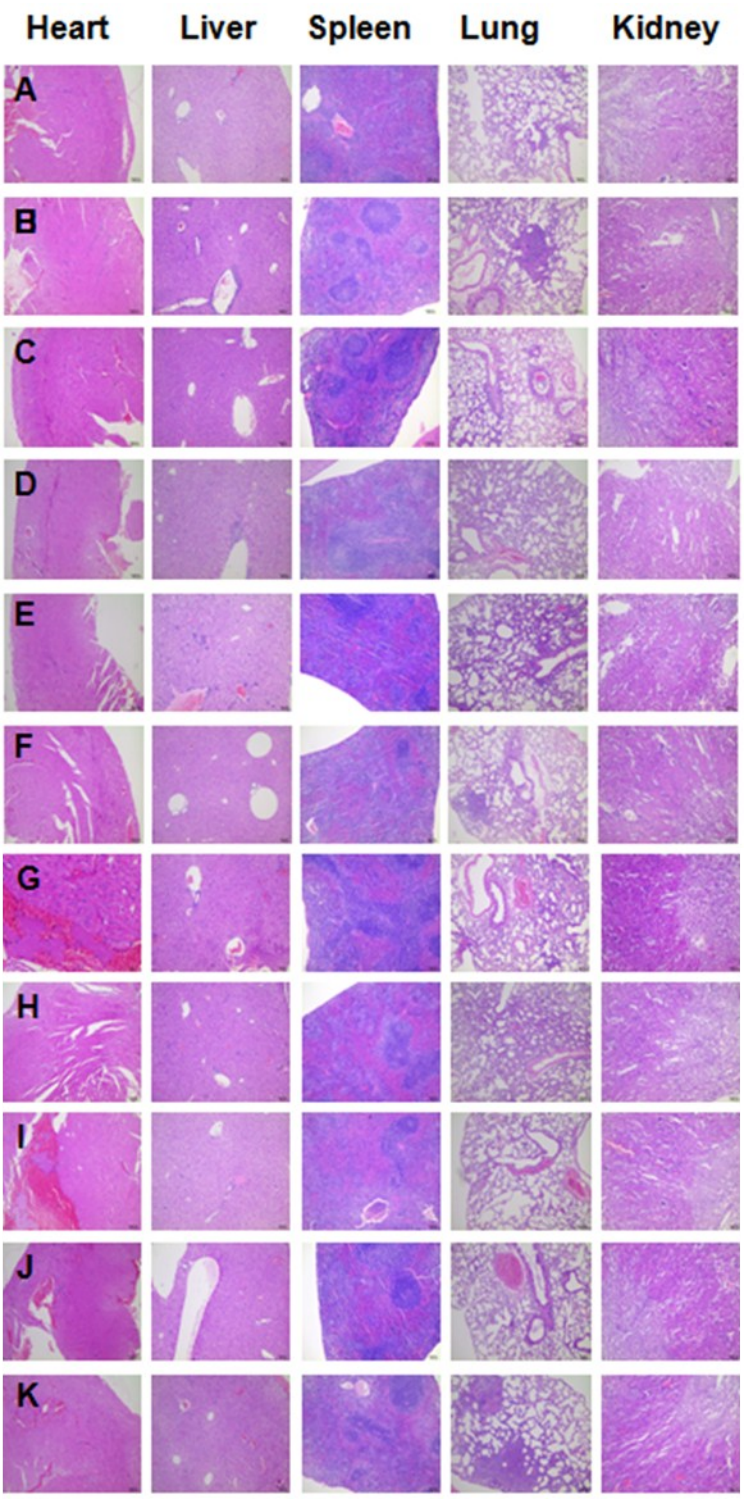

Fig. S8. Histological analysis of heart, liver, spleen, lung, and kidney with different formulations. A: saline(L−); B: G1*(L+); C: G2*(L−); D: G3* (L+); E: G3* (L−); F: G4* (L+); G: G1(L+); H: G2 (L−); I: G3 (L+); J: G3 (L−); and K: G4 (L+).