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Supporting Information for

Real-time monitoring controlled drug delivery system *in vivo*: construction by near infrared fluorescence monomer conjugated with pH-responsive polymeric micelles

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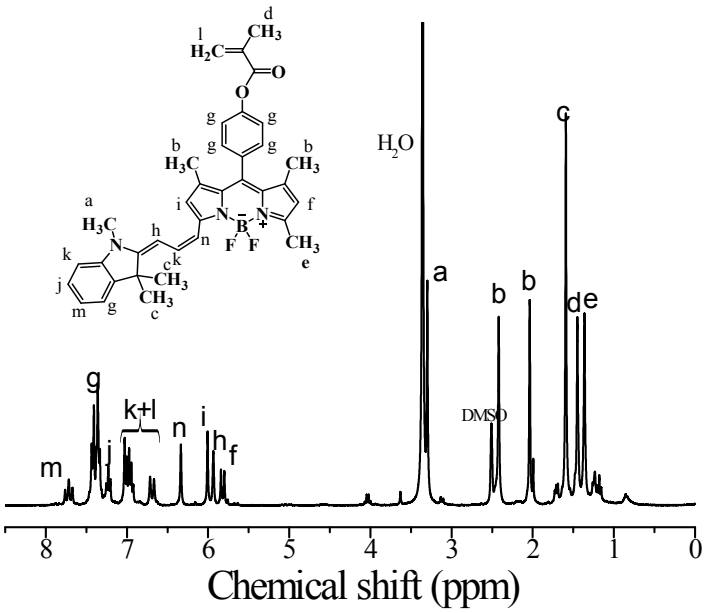

Figure S1. ^{1}H NMR spectrum of monomer NFM in DMSO-d_6.

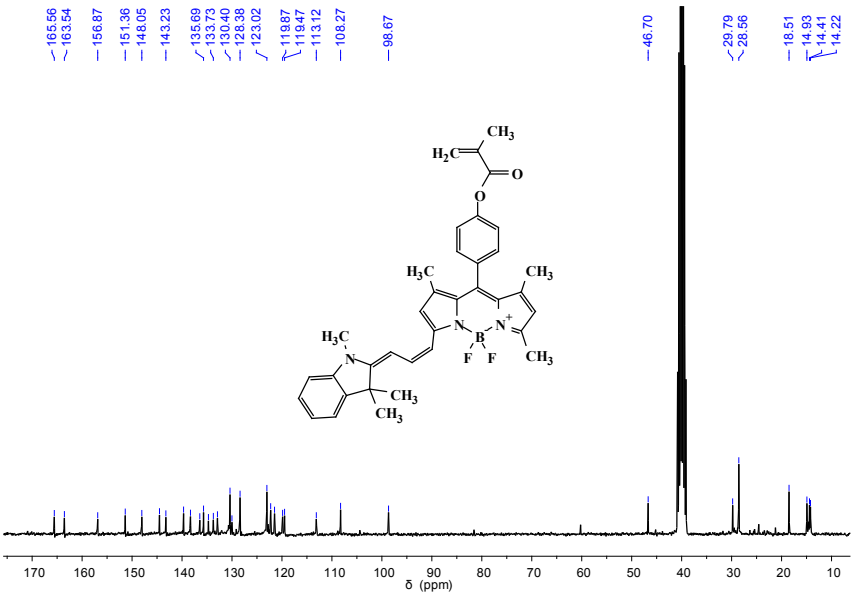

Figure S2. ^{13}C NMR spectrum of monomer NFM in DMSO-d_6.

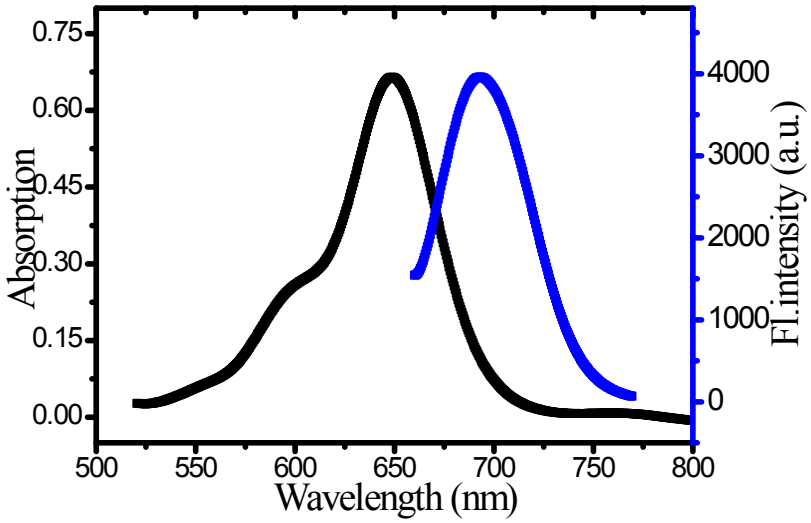

Figure S3. Absorption (black line) and emission (blue line, λex = 549 nm) spectra of monomer NFM (5 μg mL^{-1}) in the THF.

Table S1. Results of RAFT polymerization of PEGMA.

Entry	Time (h)	$[PEGMA]_0$:$[CPDN]_0$: $[AIBN]_0$	$M_{n,GPC}$ (g/mol)	M_w/M_n	T (^oC)
1	5	50:1:0.5	20900	1.11	60
2	5	60:1:0.5	22200	1.12	60
3	6	50:1:0.5	21300	1.11	60
4	6	60:1:0.5	25900	1.11	60
5	5	60:1:0.5	28300	1.19	75
6	5	70:1:0.5	31400	1.21	75

Polymerization conditions: m_{PEGMA} = 3.25 g, $V_{1,4\text{-dioxane}}$ = 2.0 mL.

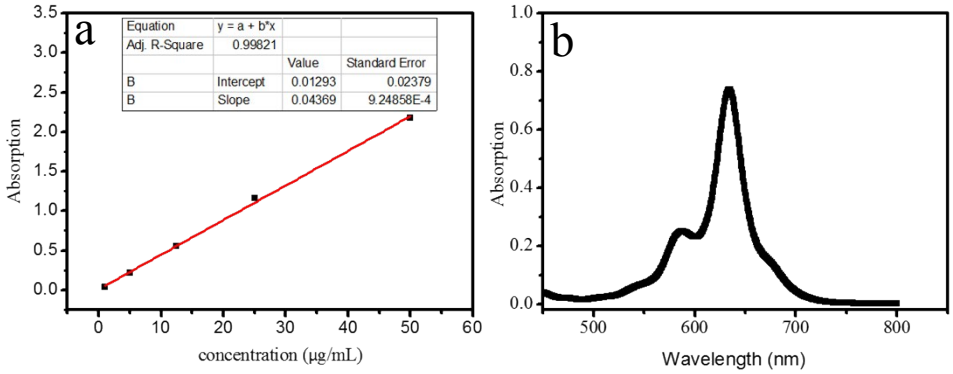

Figure S4. UV-vis spectra of monomer NFM with different concentration in hexane (a) and absorption of NFM unreacted in the hexane (150 mL).

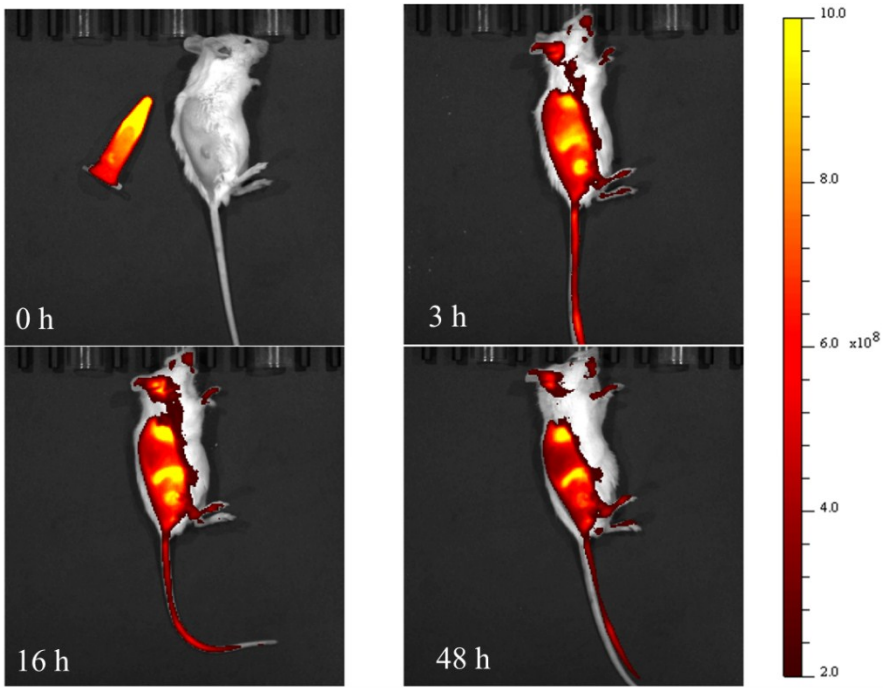

Figure S5. *In vivo* fluorescence images of the murine mammary carcinoma cell 4T1 mouse taken at different time points post injection of drug-loaded micelles (150 μL, 40 mg mL^{-1}). Sample used for self-assembly: PPEGMA-*b*-P(DBAM-*co*-NFM), $M_{n,GPC}$ = 27700 g mol^{-1}, M_w/M_n = 1.12.