Supporting Information

Esterase-Responsive Polymeric Prodrug-Based Tumor Targeting Nanoparticles for Improved Anti-Tumor Performance against Colon Cancer

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Table S1. Molecular parameters of polymers used in this study.

Sample	M_n (g/mol)[a]	$Đ_M$ [a]	M_n (g/mol)[b]
P(OEGMA$_{0.45}$-*co*-BSMA$_{0.55}$)$_{72}$	25,000	1.29	24,800
P(OEGMA$_{0.45}$-*co*-BUF$_{0.46}$-*co*-NHS$_{0.09}$)$_{72}$	37,700	1.21	37,700
P(OEGMA$_{0.45}$-*co*-BUF$_{0.46}$-*co*-NHS$_{0.062}$-*co*-RGD$_{0.028}$)$_{72}$	38,900	1.32	38,900
P(OEGMA$_{0.45}$-*co*-BUF$_{0.46}$-*co*-NHS$_{0.048}$-*co*-RGD$_{0.028}$-*co*-Cy5$_{0.014}$)$_{72}$	39,000	1.31	39,500
P(OEGMA$_{0.45}$-*co*-BUF$_{0.46}$-*co*-NHS$_{0.076}$-*co*-Cy5$_{0.014}$)$_{72}$	39,100	1.30	38,400

[a] Determined by GPC using DMF as the eluent (1.0 mL/min). [b] Calculated from ^{1}H NMR results.

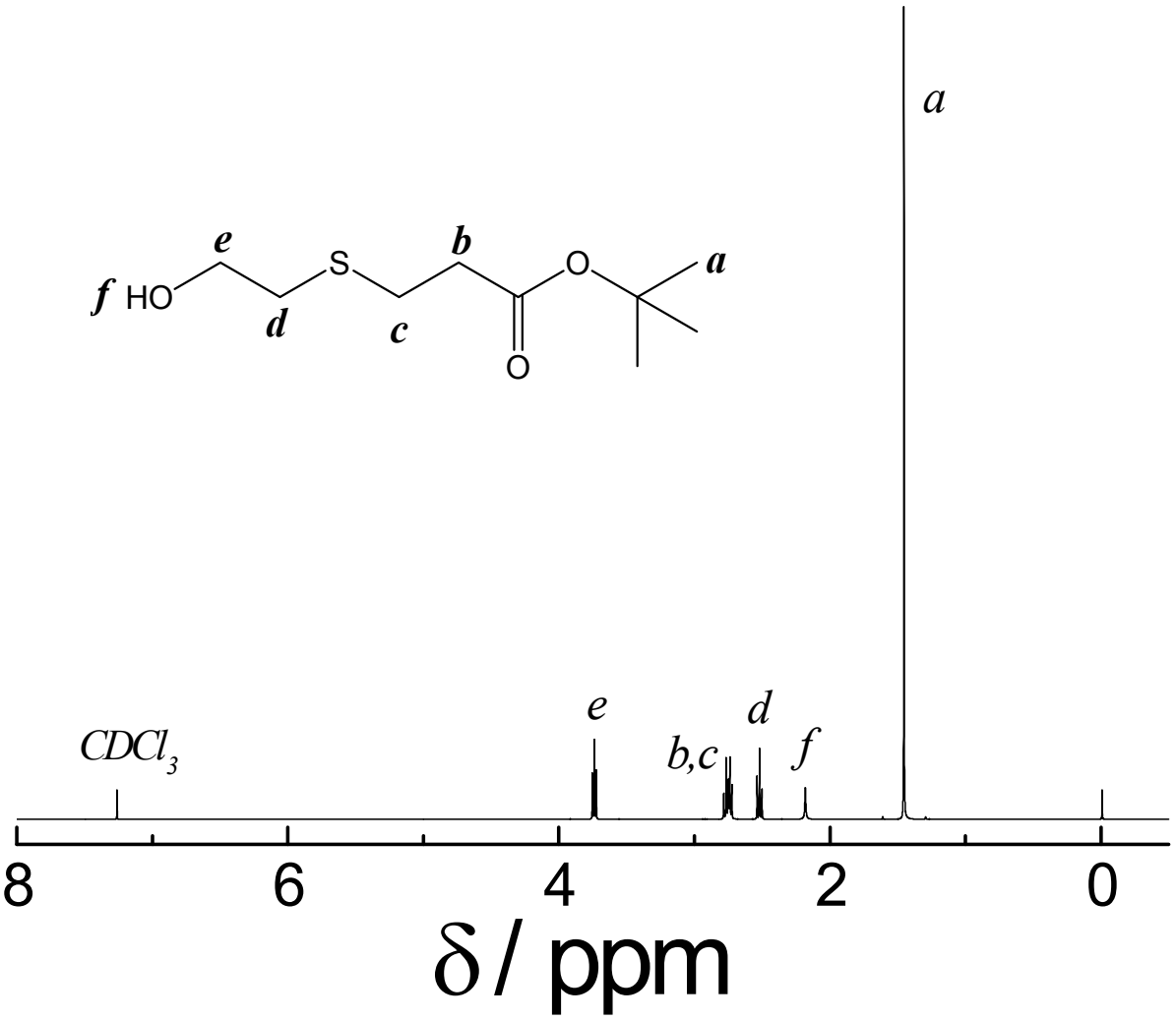

Fig. S1. ^{1}H NMR spectrum of *tert*-butyl-3-((2-hydroxyethyl)thio)propanoate in $CDCl_3$.

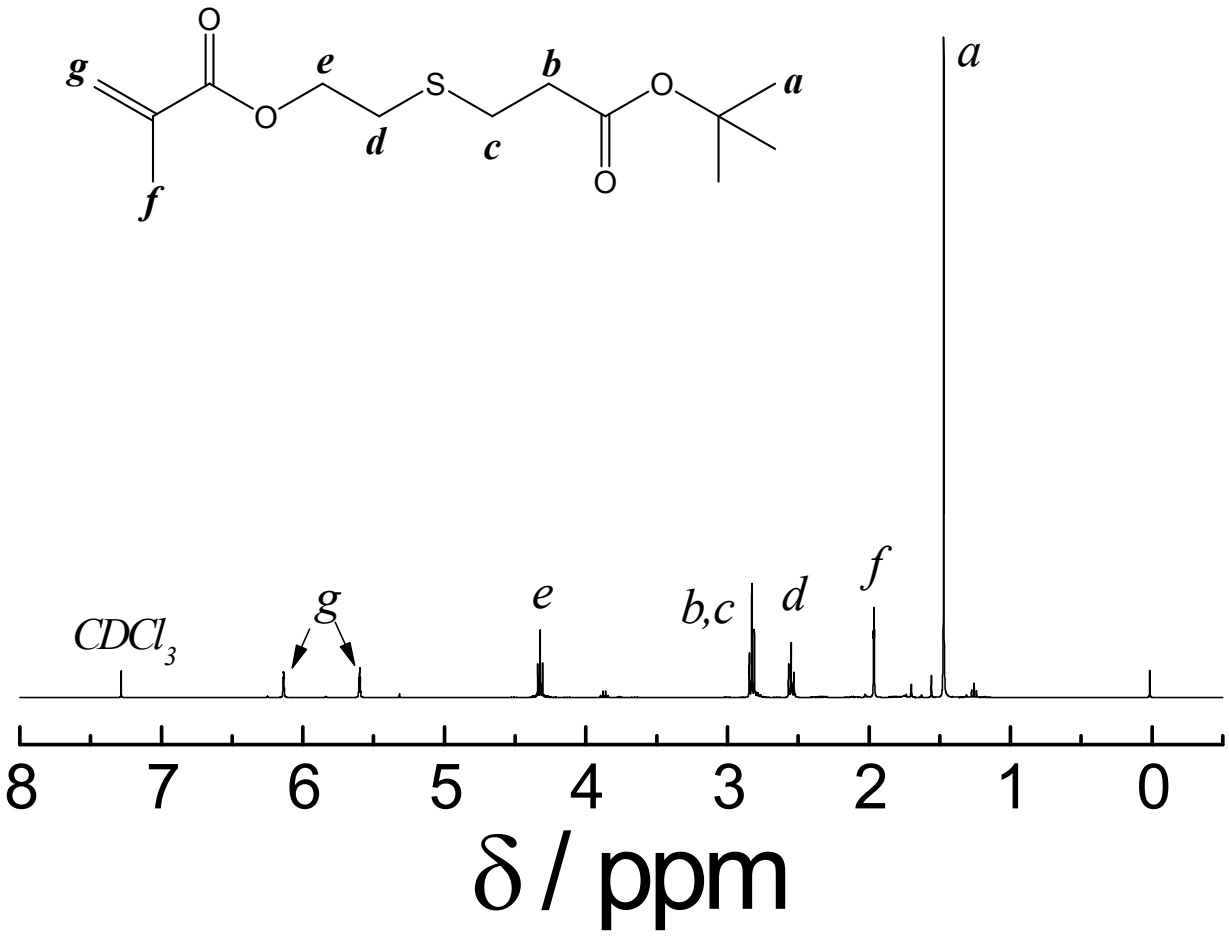

Fig. S2. ^{1}H NMR spectrum of 2-((3-(*tert*-butoxy)-3-oxopropyl)thio)ethyl methacrylate in $CDCl_3$.

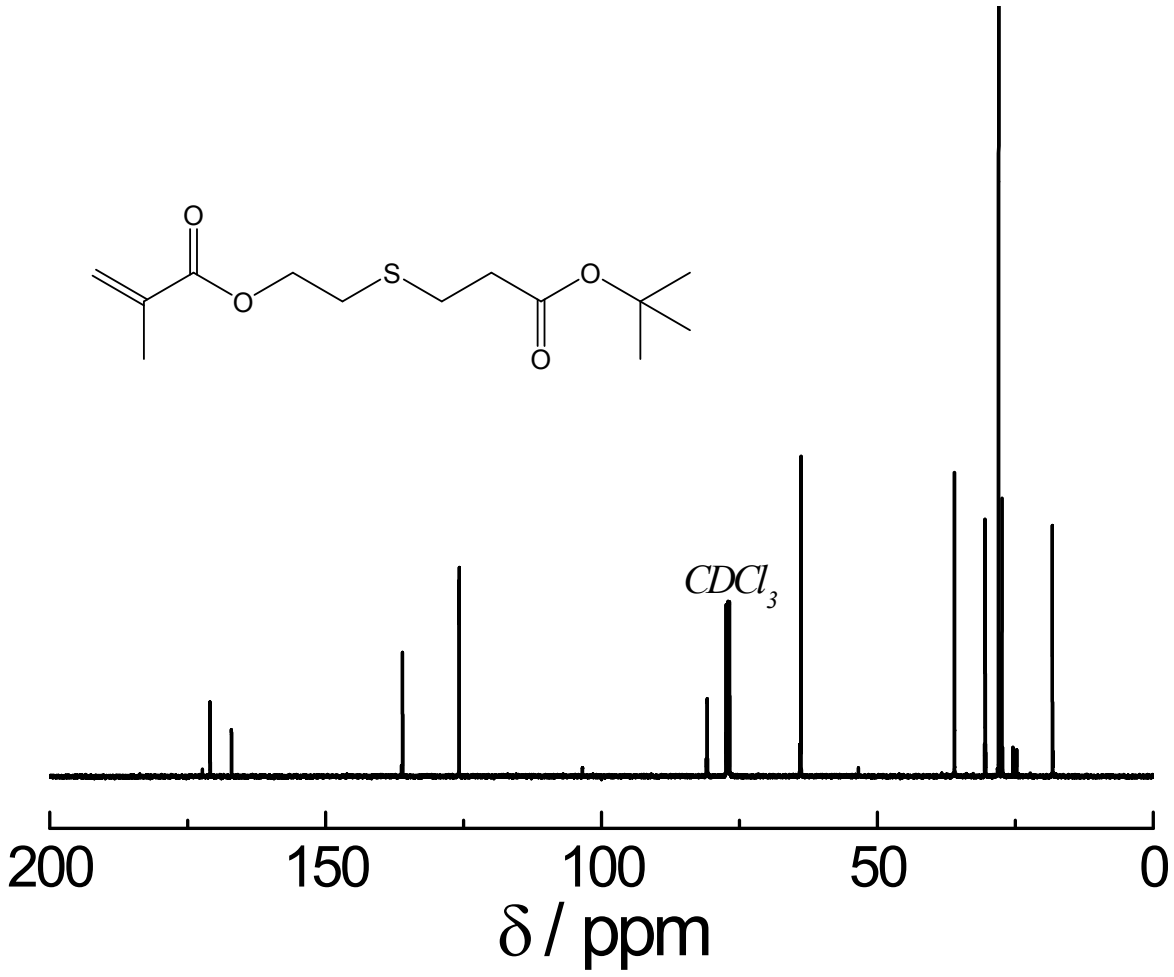

Fig. S3. ^{13}C NMR spectrum of 2-((3-(*tert*-butoxy)-3-oxopropyl)thio)ethyl methacrylate in $CDCl_3$.

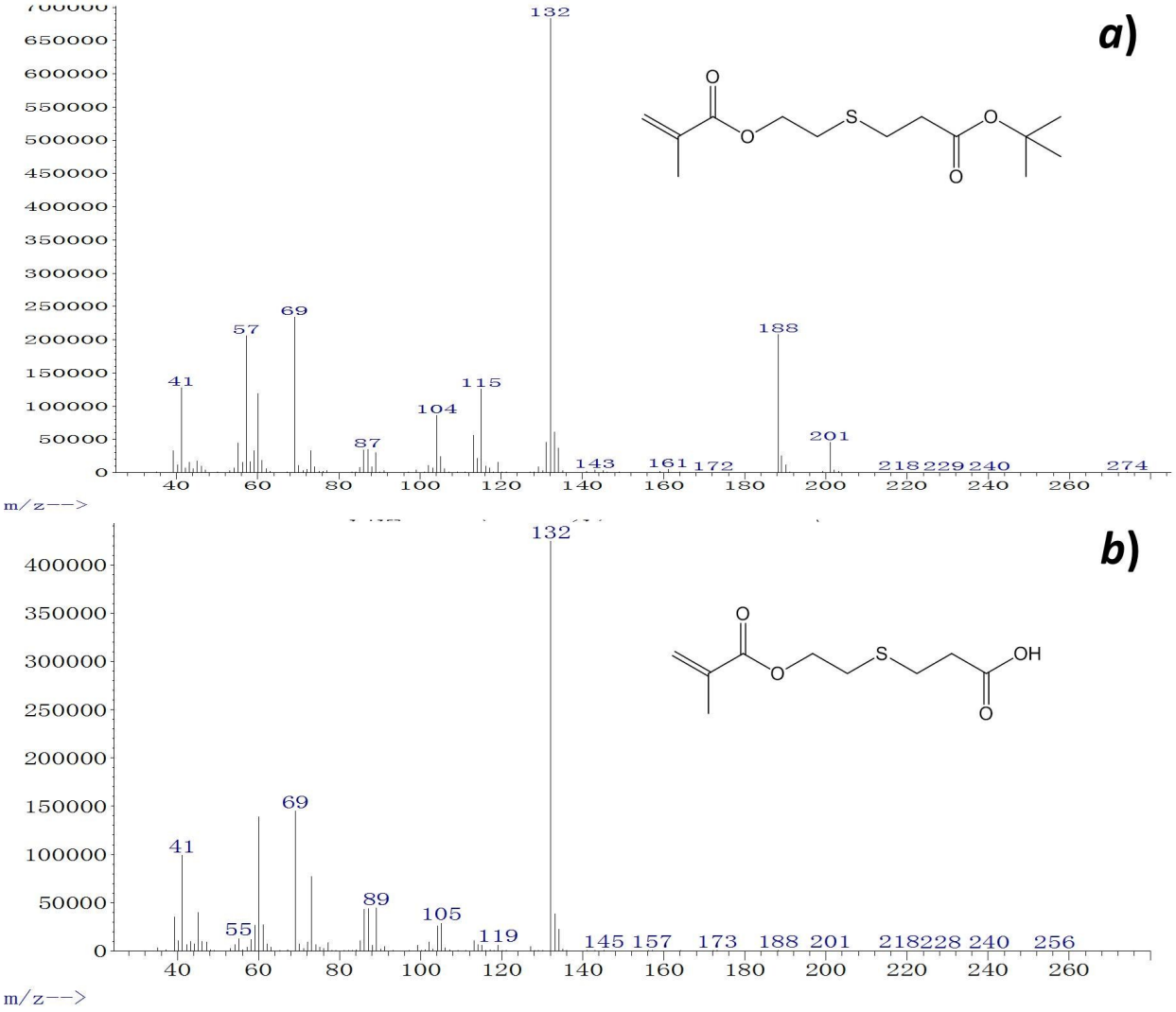

Fig. S4. ESI-Mass spectra of (a) 2-((3-(*tert*-butoxy)-3-oxopropyl)thio)ethyl methacrylate (m/z 188, calculated for $C_9H_{10}O_2S$: 188) and (b) 3-((2-(methacryloyloxy)ethyl)thio)propanoic acid (BSMA) (m/z 132, calculated for $C_5H_8O_2S$: 132).

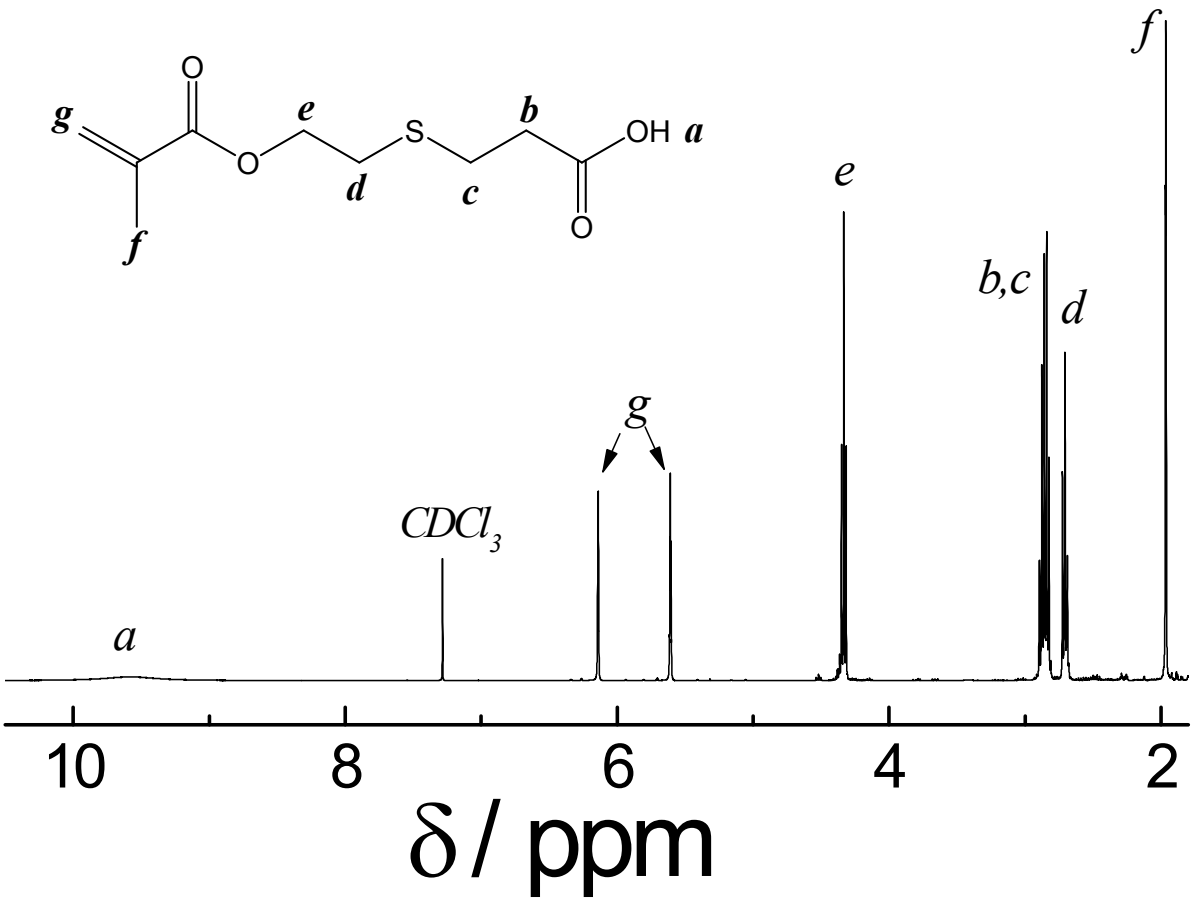

Fig. S5. ^{1}H NMR spectrum of BSMA in $CDCl_3$.

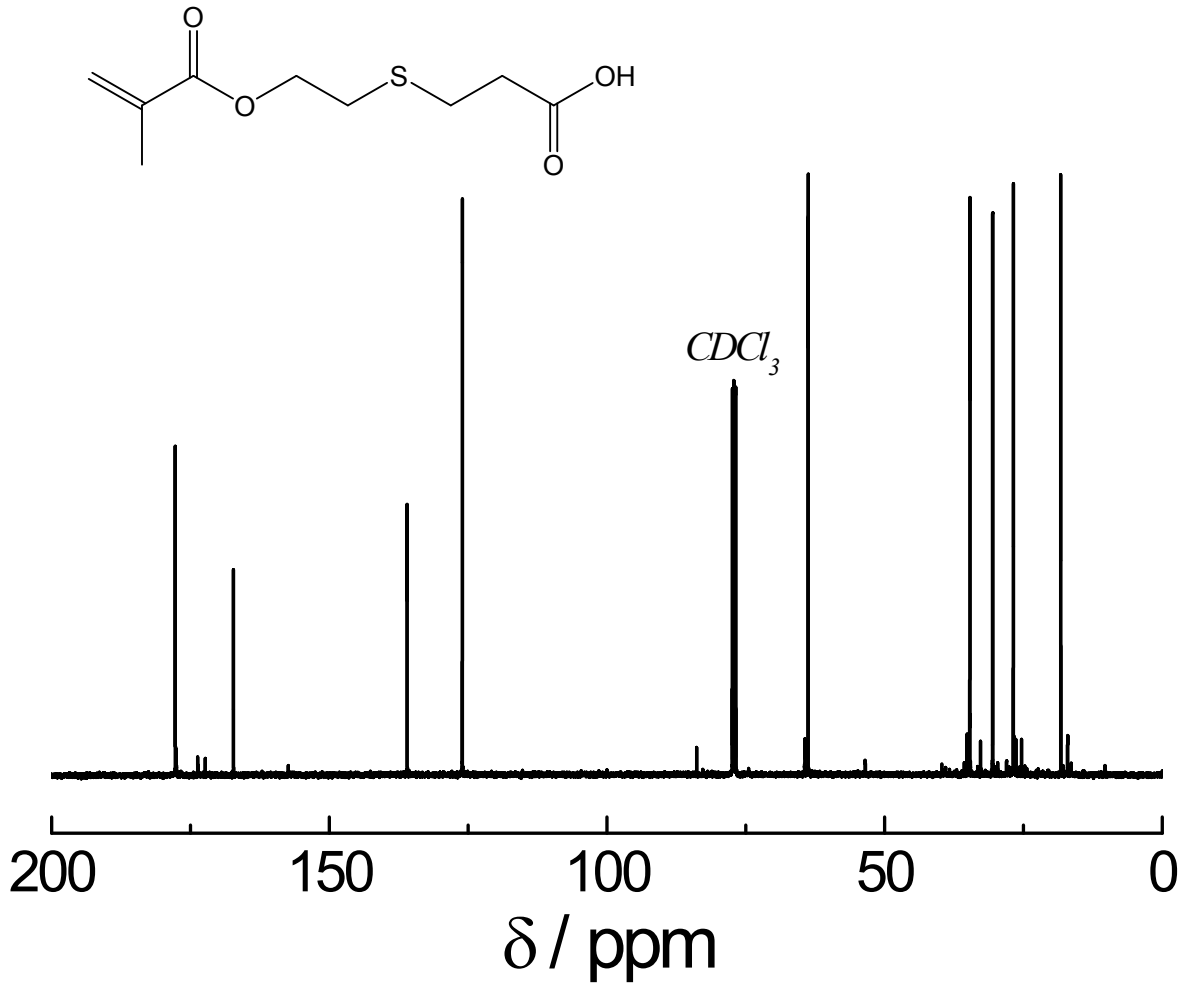

Fig. S6. ^{13}C NMR spectrum of BSMA in $CDCl_3$.

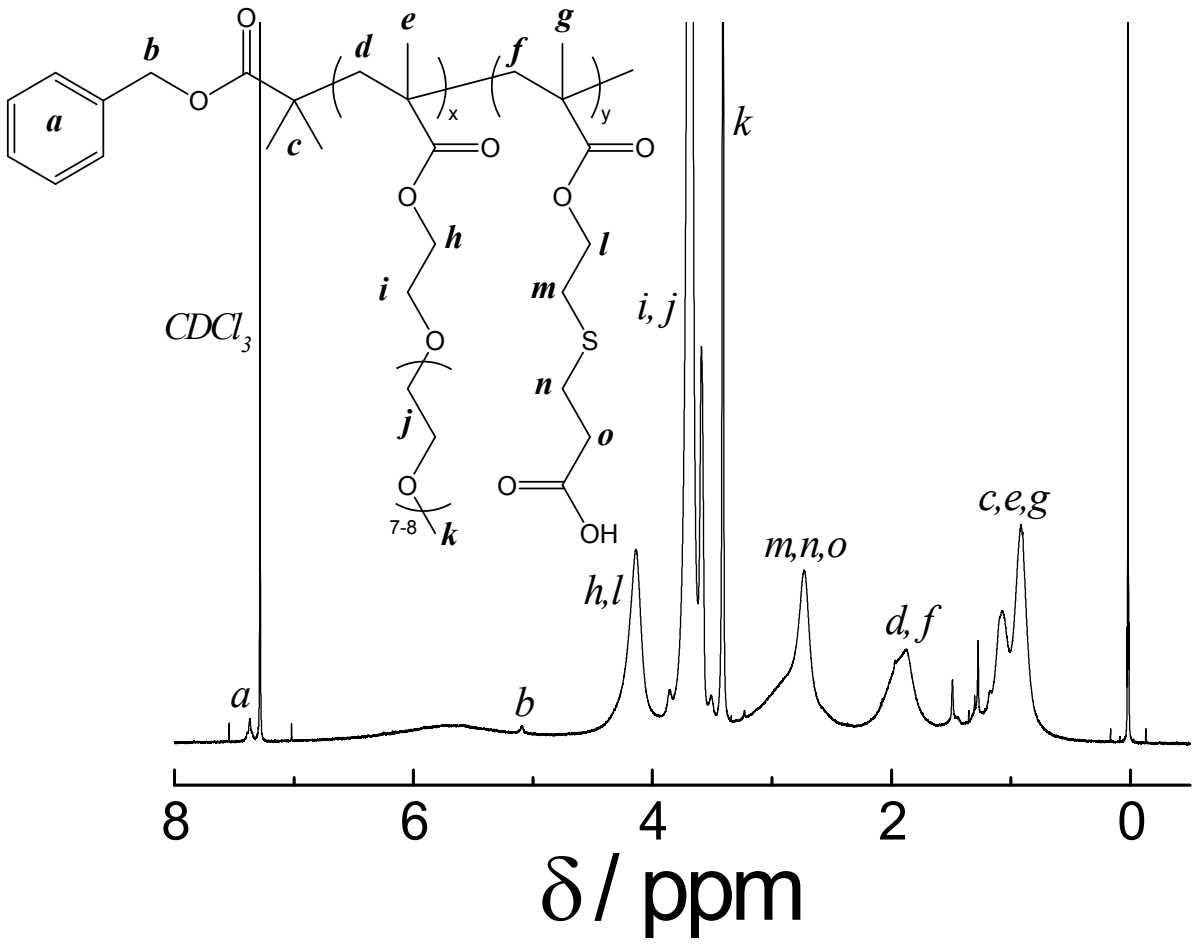

Fig. S7. ^{1}H NMR spectrum of P(OEGMA-*co*-BSMA) in $CDCl_3$.

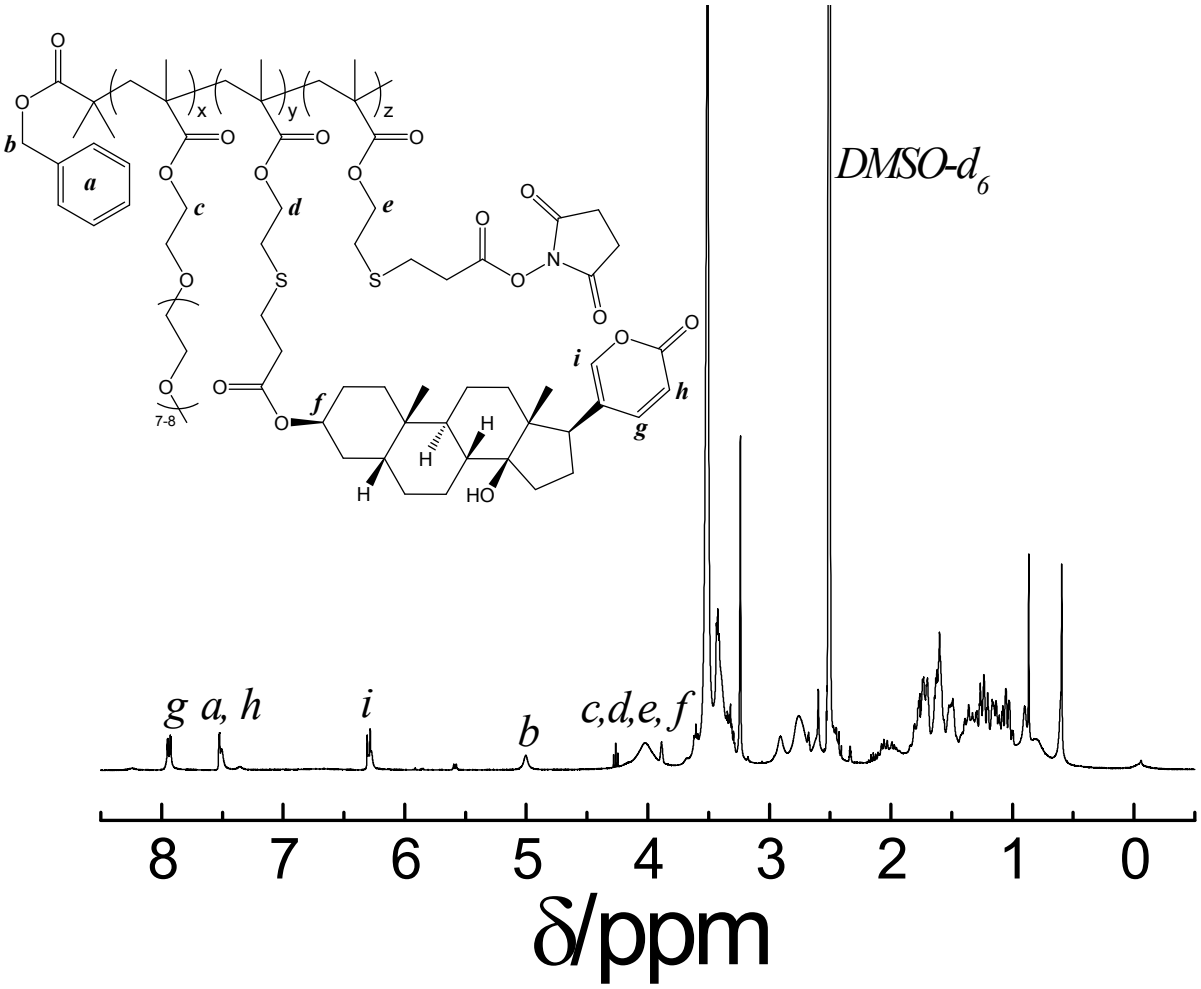

Fig. S8. ^{1}H NMR spectrum of P(OEGMA-*co*-BUF) in DMSO-d_6.

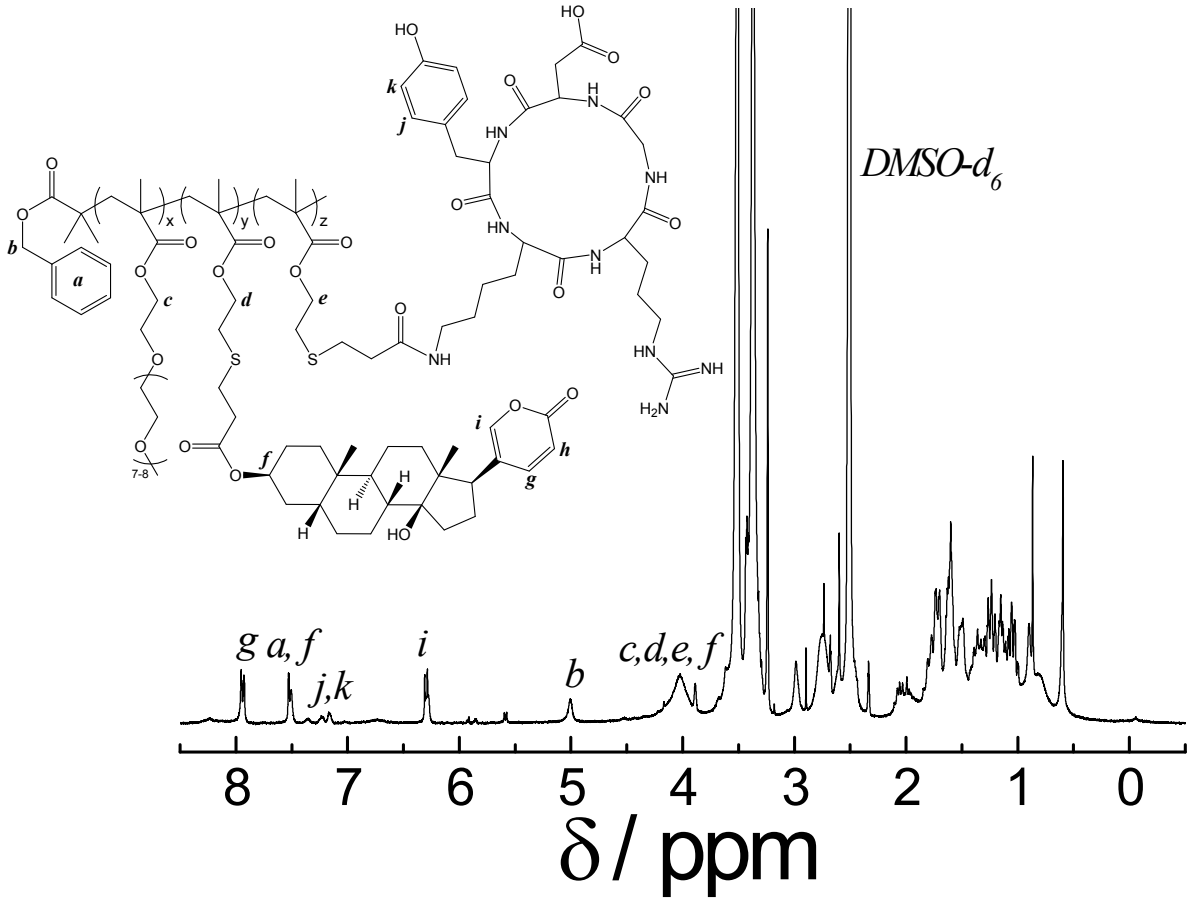

Fig. S9. ^{1}H NMR spectrum of P(OEGMA-*co*-BUF-*co*-RGD) in DMSO-d_6.

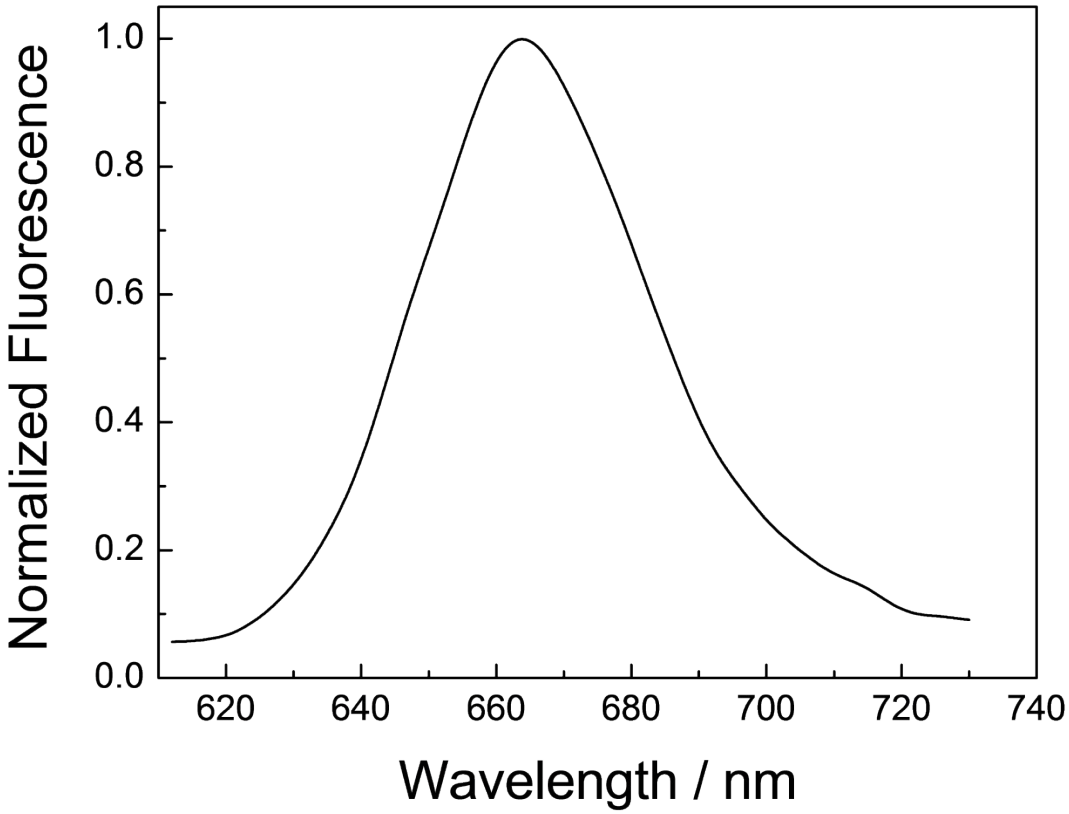

Fig. S10. Fluorescence emission spectrum recorded for the aqueous micellar solution of P(OEGMA-*co*-BUF-*co*-RGD-*co*-Cy5) ([Cy5] = 3.0×10^{-6} M; λ_{ex} = 633 nm; slit widths: Ex. 5 nm, Em. 5 nm).

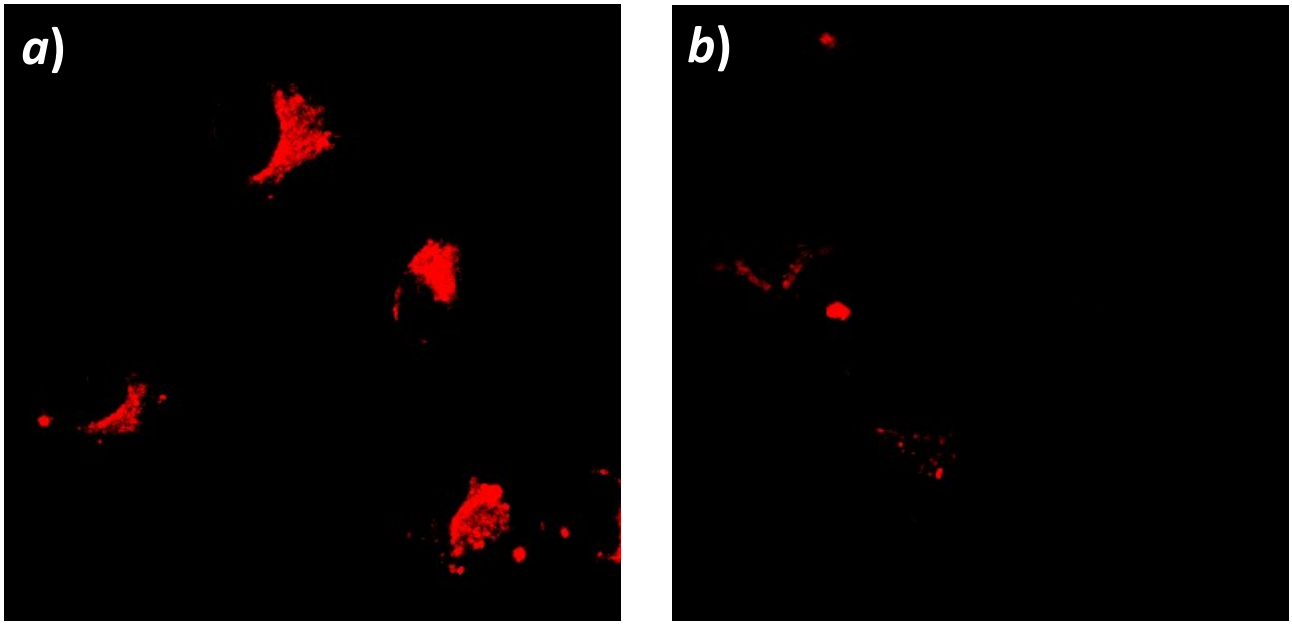

Fig. S11. Typical confocal microscopy fluorescence images recorded for LoVo cells after incubating at 37 °C with P(OEGMA-*co*-BUF-*co*-RGD-*co*-Cy5) ([Cy5] = 3.0×10^{-6} M) for 4 h (a) without and (b) with an excess of free RGD (20-fold equivalent of RGD in P(OEGMA-*co*-BUF-*co*-RGD-*co*-Cy5)) to block RGD-mediated endocytosis of nanoparticles.