Supporting Information

Synthesis of Heterotelechelic Polymers with Affinity to Glutathione-S-Transferase and Biotin-Tagged Proteins by RAFT Polymerization and Thiol-Ene Reactions

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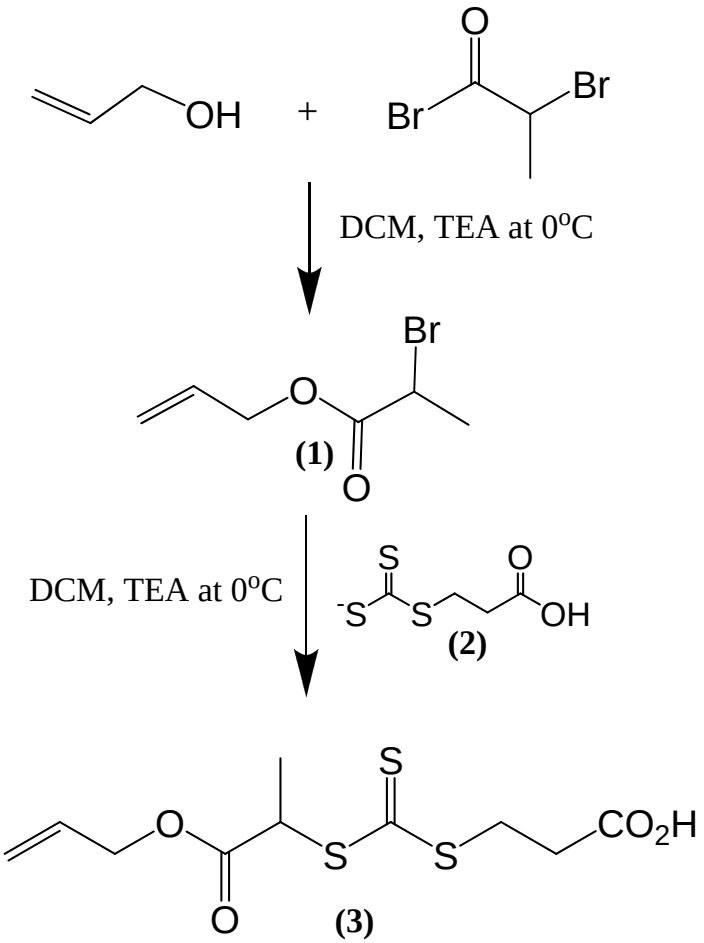

Scheme S1. Synthesis of RAFT agent used in this study.

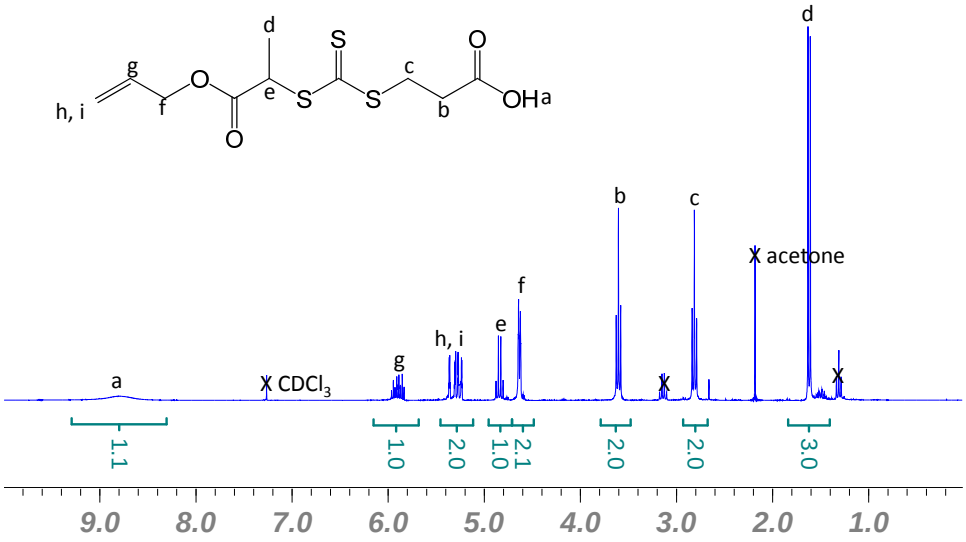

Figure S1. ^{1}H NMR spectrum of *3-((1-(allyloxy)-1-oxopropan-2-ylthio) carbonothioylthio) propanoic acid)* (**3**).

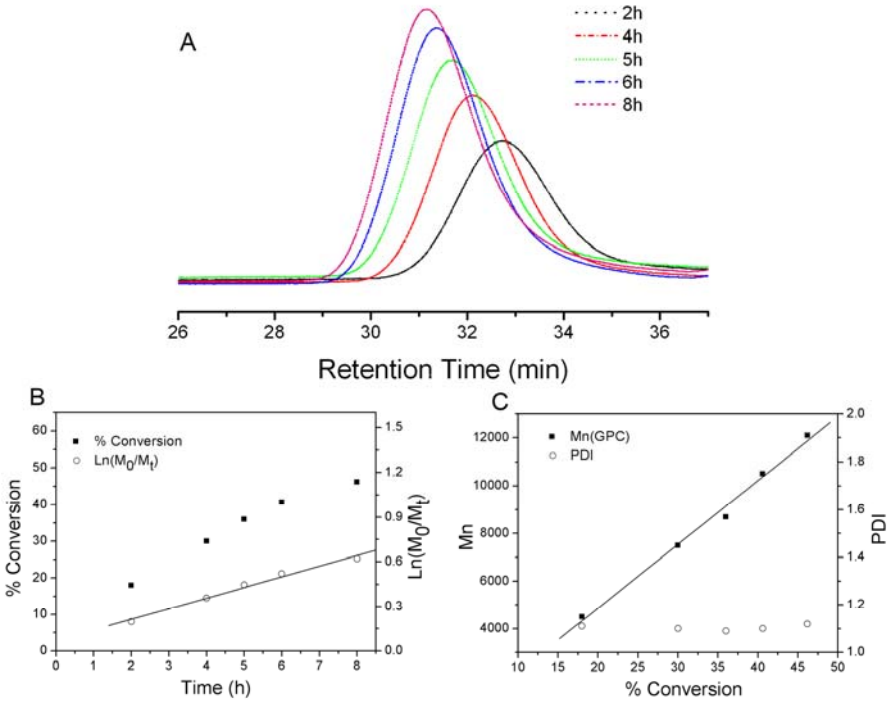

Figure S2. RAFT polymerization of PEGA in acetonitrile at 60 °C. $[PEGA]_0/[CTA]_0/[AIBN]_0$ =50/1/0.2, [PEGA]=1.0 mol/L; (A) GPC traces; (B) polymerization kinetic plot; (C) evolution of the number average molecular weight (Mn) and polydispersity (PDI) versus conversion.

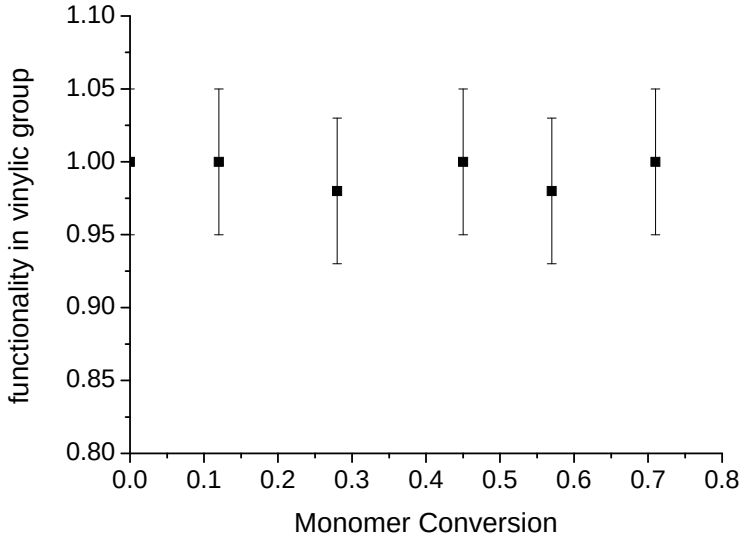

Figure S3. Evolution of the functionality in allylic group versus monomer conversion, determined by ^{1}H NMR.

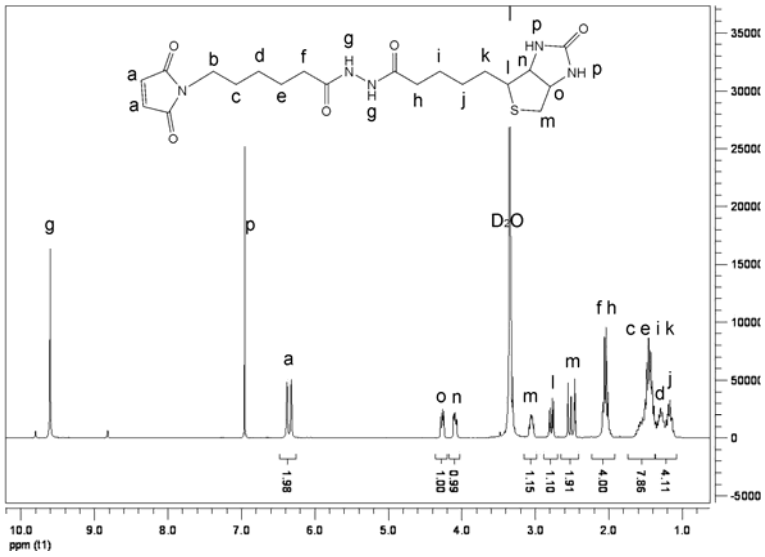

Figure S4. ^{1}H NMR spectrum of biotin-maleimide (recorded in DMSO, 298K, 64 scans).

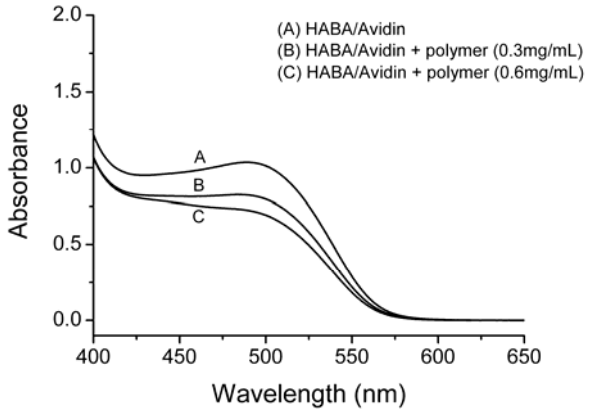

Figure S5. UV-Vis spectra obtained in HABA/Avidin assay of the GSH-PNIPAAm-Biotin.

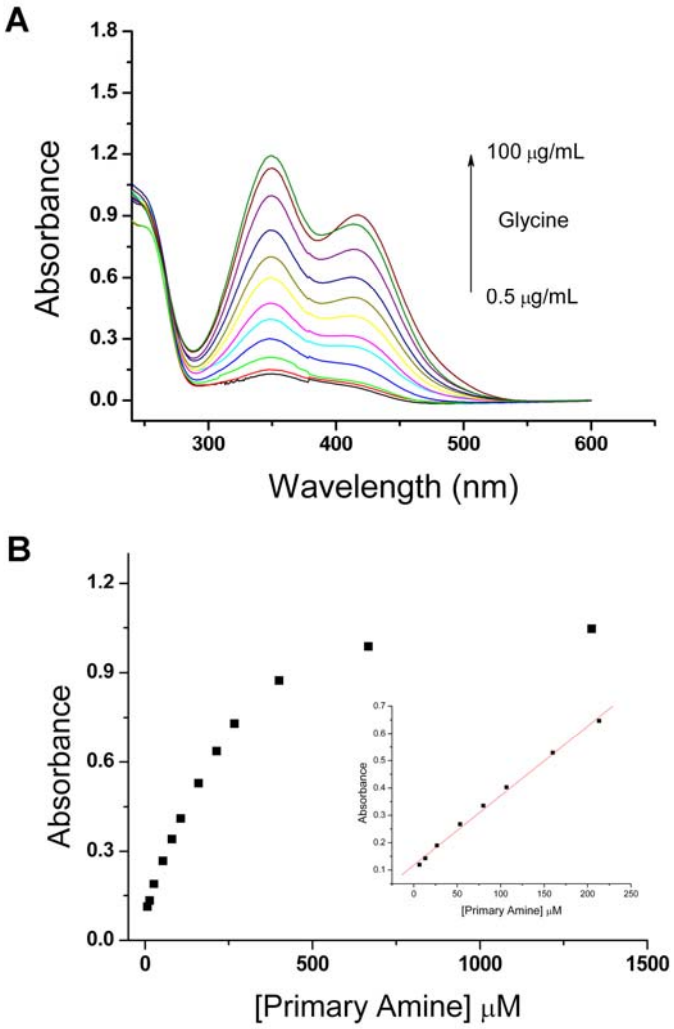

Figure S6. (A) UV-Vis spectra obtained in TNBSA assay of a standard glycine solution and (B) the calibration curve built for the assay.

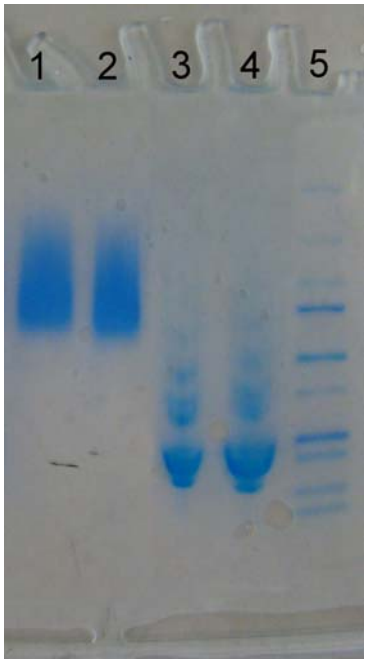

Figure S7. Polyacrylamide gel electrophoresis of non-modified PNIPAAm complexation with streptavidin and GST. Lane 1: streptavidin and PNIPAAm mixture, lane 2: streptavidin, lane 3: GST, lane 4: GST and PNIPAAm mixture, lane 5: protein marker.