Supplementary information



Fig. S1 ¹H-NMR spectrum of HIPAAm in D₂O containing 0.05 v/v% TMSP.



Fig. S2 ¹H-NMR spectrum of P(NIPAAm-*co*-HIPAAm) in D₂O containing 0.05 v/v% TMSP.



Fig. S3 ¹H-NMR spectrum of P(NIPAAm-*co*-HIPAAm-*co*-SAKIPAAm) in DMSO-*d*₆ containing 0.05 v/v% TMS.



Fig. S4 Click reactions of polymer and several azido-IgG were observed by SDS-PAGE ((1) protein standard (2) IgG (3) azido-IgG (4) azido/IgG = $0.5 \pmod{10}$ (5) 2.0 (6) 4.3 (7) 5.5 (8) 8.2 (9) 8.5 (10) 10.7 (11) 11.0 (12) protein standard.)



Fig. S5 ELISA plate showing the antigen enrichment estimation after heat precipitation. (a)-(h) showing the antigen enrichment using different IgG-polymer conjugate ratios ((a) azido/IgG = $0.5 \pmod{100}$ (b) $2.0 \pmod{4.3}$ (d) $5.5 \binom{10}{100} \times 10.7 \binom{10}{100} \times 11.0$ and (i) shows the original concentration of antigen.



Fig. S6 Antigen visualization by paper chromatography. Antigen was visualized (a) before and (b) after enrichment using paper chromatography. The playback speed of this video was 4x.