

Supplementary Information for:

**Thermoresponsive degradable hydrogels with renewable surfaces for
protein removal**

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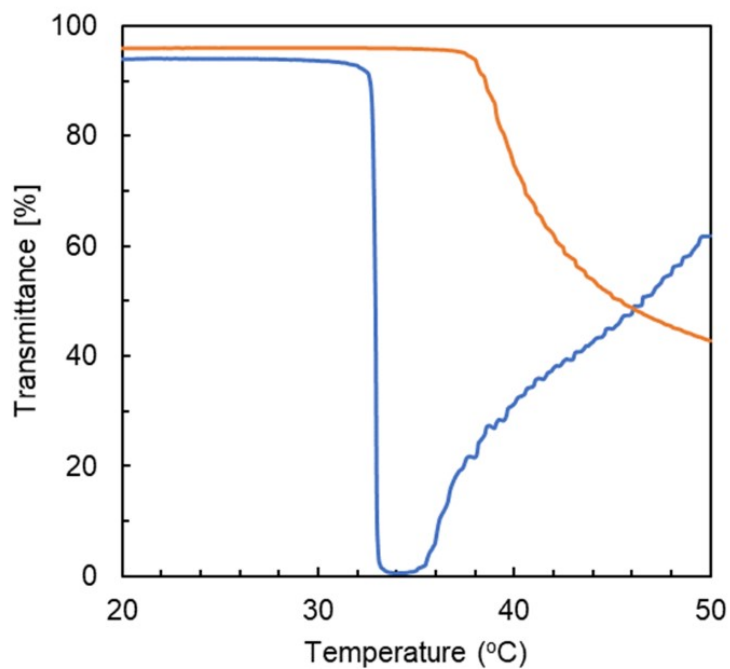


Figure S1 Temperature dependent transmittance of byproducts. Blue line: PNIPAAm (in water, polymer conc.; 1.0 wt%, Heating rate; 1.0°C/min). Orange line: byproducts from hydrogel after degradation (in water, polymer conc.; 1.0 wt%, Heating rate; 1.0°C /min). The degradation of prepared polymer was performed in 2 mmol/L NaOH aq. at 25°C for 24 h.

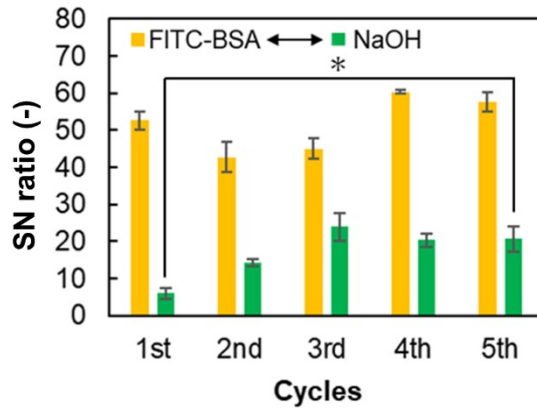


Figure S2 The SN ratio of adsorbed BSA on poly(NIPAAm-g-PEG) hydrogel (sample 3 in table 1). Hydrogel disks were alternately soaked in FITC-BSA containing PBS solution (yellow bar) for 1 h and NaOH aq. (pH11.2) (green bar) for 30 min, Data: mean \pm SD (n=3, *: p<0.05).

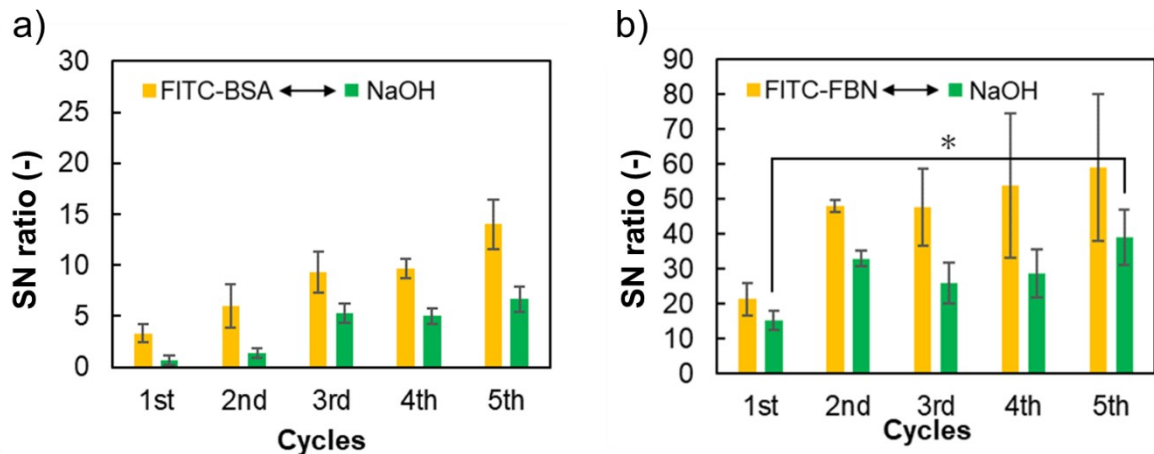


Figure S3 (a) The SN ratio of adsorbed BSA on poly(MDO-co-NIPAAm) hydrogels. SN ratio of adsorbed FITC-BSA on hydrogel surface. Yellow bars: Hydrogel soaked in FITC-BSA solution in each cycle. Green bars: Hydrogel soaked in NaOH solution in each cycle after 1 h soaking in PBS solution containing FITC-BSA. Data are expressed as the mean \pm SD (n=3), n.s.: not significant. (b) SN ratio of adsorbed FITC-FBN on hydrogel surface. Yellow bars: Hydrogel soaked in PBS solution containing FITC-FBN in each cycle. Green bars: Hydrogel soaked in NaOH solution in each cycle after 1 h soaking in PBS solution containing FITC-FBN. Data are expressed as the mean \pm SD (n=3), n.s.: not significant.