

Electronic Supplementary Information (ESI)

Glucose-responsive microgels based on apo-enzyme recognition

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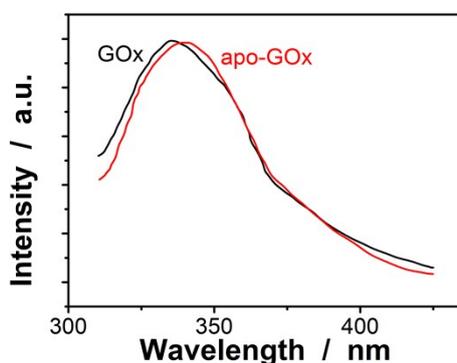


Fig. S1 Fluorescence spectrum of GOx and apo-GOx.

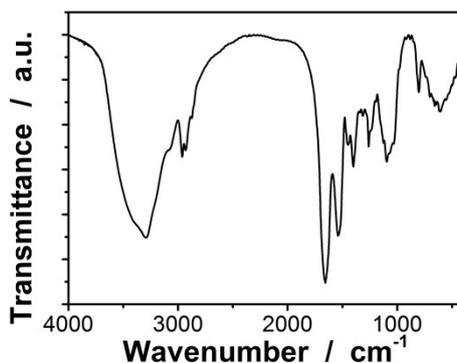


Fig. S2 FTIR spectrum of apo-GOx@pNIPAM microgels.

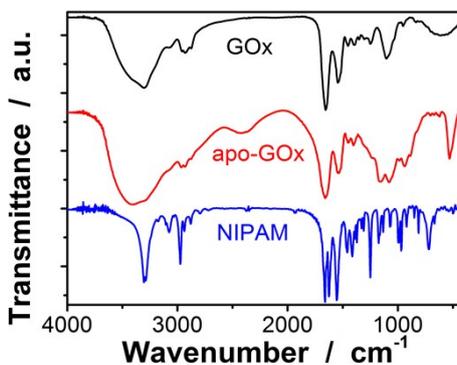


Fig. S3 FTIR spectrum of GOx, apo-GOx and NIPAM.

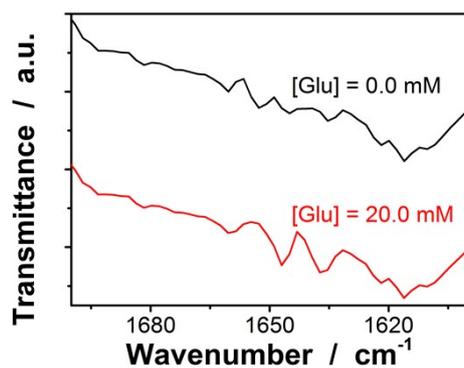


Fig. S4 FTIR spectra, after resolution enhancement by first derivation, of apo-GOx@pNIPAM microgels in the absence (0.0 mM) and presence (20.0 mM) of glucose.

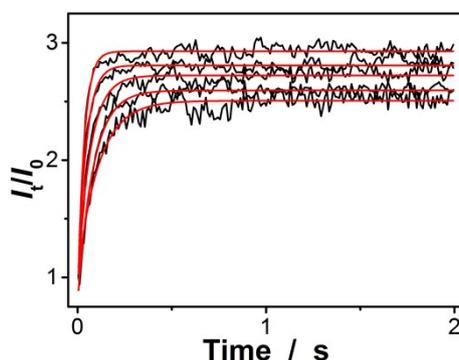


Fig. S5 Variation in the I_t/I_0 for apo-GOx@pNIPAM microgels upon adding glucose (red lines: 1st-order kinetic fits).

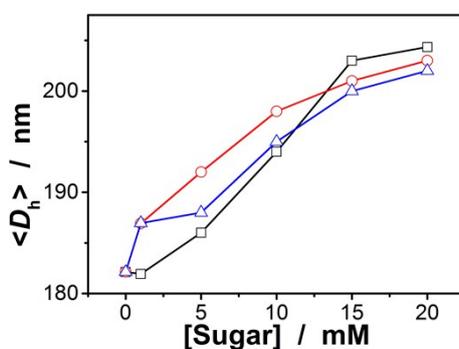


Fig. S6 Sugar-dependent $\langle D_h \rangle$ values: fructose (\square), galactose (\circ), or mannose (Δ). All measurements were made in 5.0 mM PBS of pH = 7.4 at 37.0 °C.

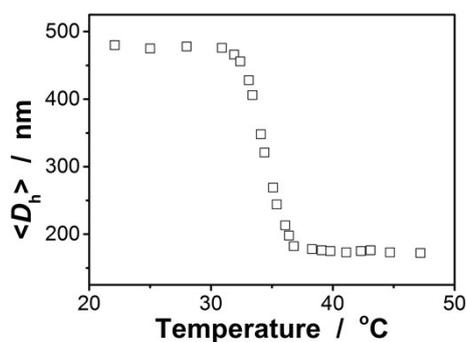


Fig. S7 Temperature-dependent $\langle D_h \rangle$ values. All measurements were made in 5.0 mM PBS of pH = 7.4.

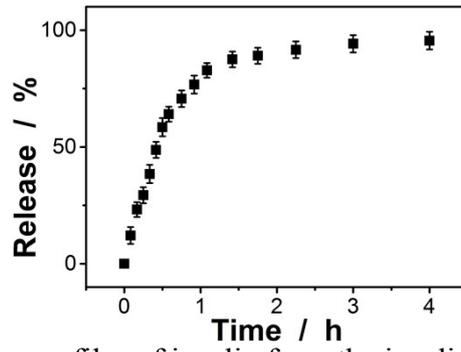


Fig. S8 Releasing profiles of insulin from the insulin solution to PBS.

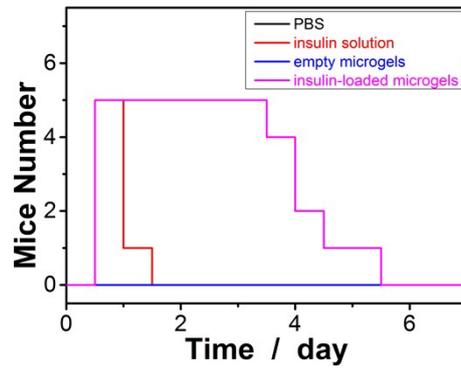


Fig. S9 Changes of the mice number in different groups within the normoglycemic range (<11.1 mM) over the administration time.