Supporting Information

A forskolin-conjugated insulin analog targeting endogenous glucose-transporter for glucose-responsive insulin delivery

Jinqiang Wang\textsuperscript{a,b,*}, Zejun Wang\textsuperscript{a,b}, Jicheng Yu\textsuperscript{c}, Yuqi Zhang\textsuperscript{c}, Yi Zeng\textsuperscript{a,b}, and Zhen Gu\textsuperscript{a,b,d,e,*}

\textsuperscript{a}Department of Bioengineering, University of California, Los Angeles, CA 90095, USA; \textsuperscript{b}California NanoSystems Institute, University of California, Los Angeles, CA 90095, USA; \textsuperscript{c}Joint Department of Biomedical Engineering, University of North Carolina at Chapel Hill and North Carolina State University, Raleigh, NC 27514, USA; \textsuperscript{d}Jonsson Comprehensive Cancer Center, University of California, Los Angeles, CA 90024, USA; and \textsuperscript{e}Center for Minimally Invasive Therapeutics, University of California, Los Angeles, CA 90095, USA.

*Email: guzhen@ucla.edu, jinqiang@g.ucla.edu
Figure S1. MALDI-TOF spectrum of insulin-F.
Figure S2. The CD spectra of insulin-F and native insulin. PBS was set as the background.
Figure S3. Representative confocal microscopy image of erythrocyte ghosts incubated with Cy5-insulin overnight. Scale bar, 50 µm.
Figure S4. The fluorescence intensity of the supernatant of erythrocyte ghost suspension treated with Cy5-insulin-F. Cy5-insulin-F was set to a total concentration of 1 µM. Data are presented as mean ± S.D. (n = 3).
Figure S5. The plasma insulin-F levels in diabetic mice after one subcutaneous injection. The dose was set to 6 mg/kg. Human recombinant insulin ELISA kit was used to measure the insulin-F level in plasma. Data are presented as mean ± S.D. (n = 5).
Figure S6. The blood glucose levels of diabetic mice with four-week long treatment. Data are presented as mean ± S.D. (n = 5).