Supporting information

A single nanowire sensor for intracellular glucose detection

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Figure S1. (A) Cyclic voltammograms of SiC@C/Pt NWE in PBS (blue), 5 mM H2O2 (black) and 5 mM glucose (red). (B) Calibration curves of SiC@C/Pt NWE to a series of H2O2 concentrations (0, 0.1, 0.2, 0.5, 1 and 2 mM) in PBS solution. The inset shows the corresponding amperometric curves.

Figure S2. Cyclic voltammograms of 6 glucose nanowire sensors in the absence (dashed curves) and presence (solid curves) of 2 mM glucose. Scan rate was 0.1 V s⁻¹.
Figure S3. Stability test of the glucose nanowire sensors by successive detection of 2 mM glucose solution for 8 days. After each detection, the sensors were washed and then stored in 4 °C refrigerator at room temperature (means ± SEM, n=3).

Figure S4. (A) Microscopic images showing a LO2 cell being inserted by an NWE. The NWE was lifted off the substrate and the focal plane is still on the slide (A). Adjusting the focal plane to the electrode (B). Scale bar: 20 μm.

Figure S5. Amperometric traces obtained from LO2 cells under FGF1 incubation by the SiC@C/Pt NWE.

Figure S6. The charge collected in LO2 cells with normal incubation (A) or FGF1 incubation (B). The red line represents the position of the average.