Supporting Information

One-step synthesis of fluorescent silicon quantum dots (Si-QDs) and their application for cell imaging

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Figure S1 Individual PL spectrum of (a) the Si-QDs prepared freshly and stored for (b) 24 h, (c) 48 h, and (d) 1 month.

Figure S2 PL spectra of the Si-QDs with surface passivation by PVP after storage in air for 1 month.

Figure S3 PL spectra of the Si-QDs under different excitation wavelength from 300 to 400 nm.
Figure S4 The fluorescence responses of the Si-QDs in the presence of various metal ions (Hg$^{2+}$, Mg$^{2+}$, Zn$^{2+}$, Ba$^{2+}$, Mn$^{2+}$, Fe$^{2+}$, Fe$^{3+}$, K$^+$, Na$^+$, Li$^+$, Cd$^{2+}$ and NH$_4^+$ ($\lambda_{ex}$ = 365 nm; $[M^{n+}]$ = 50.0 $\mu$M).

Figure S5 Cell viability of IE cells incubated with the Si-QDs at a concentration of 0.5 silicon g/L for different times. The cell viability was calculated as a percentage from the viability of untreated cells as control, which viability is considered 100%. The results are means ± SD from three independent experiments.