

# Supplemental Data of

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## Detection of Temperature Difference in Neuronal Cells

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**Figure S1**

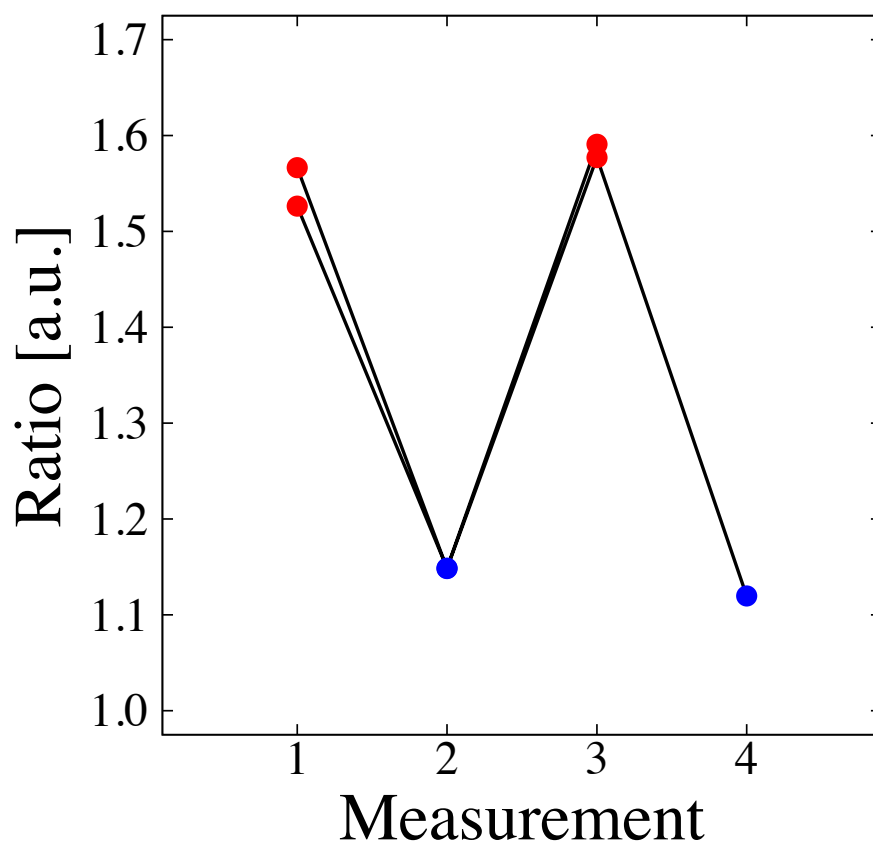
**Figure S2**

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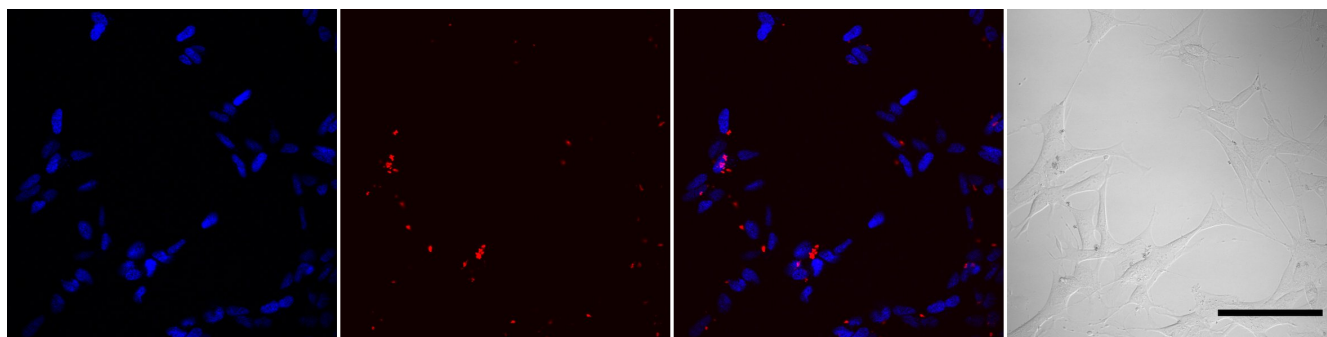
**Figure S3**

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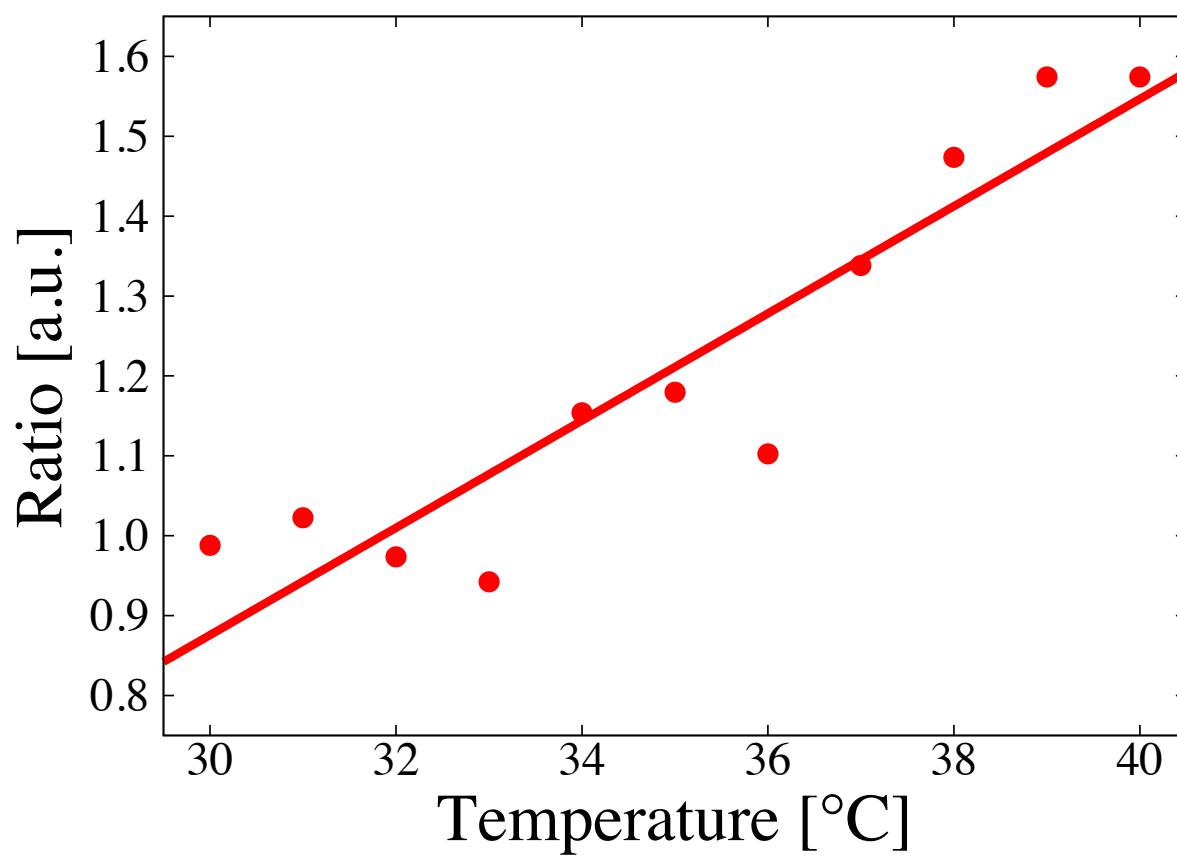
**Figure S4**



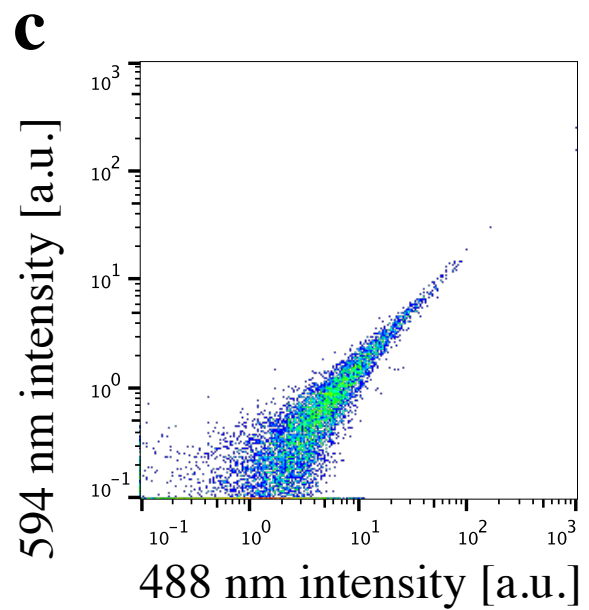
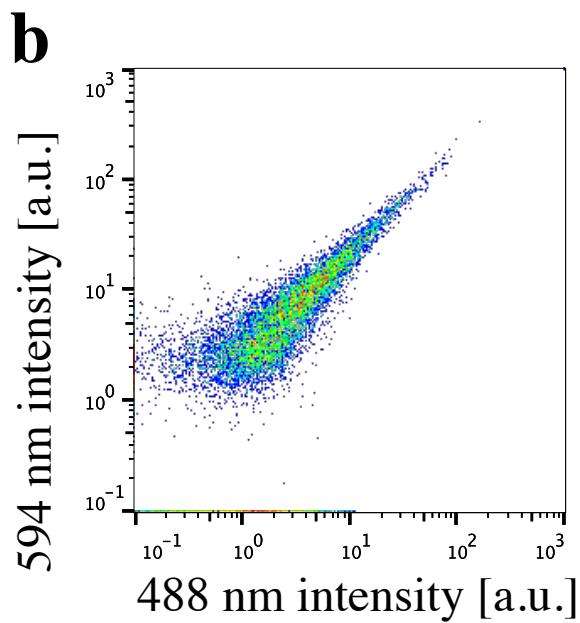
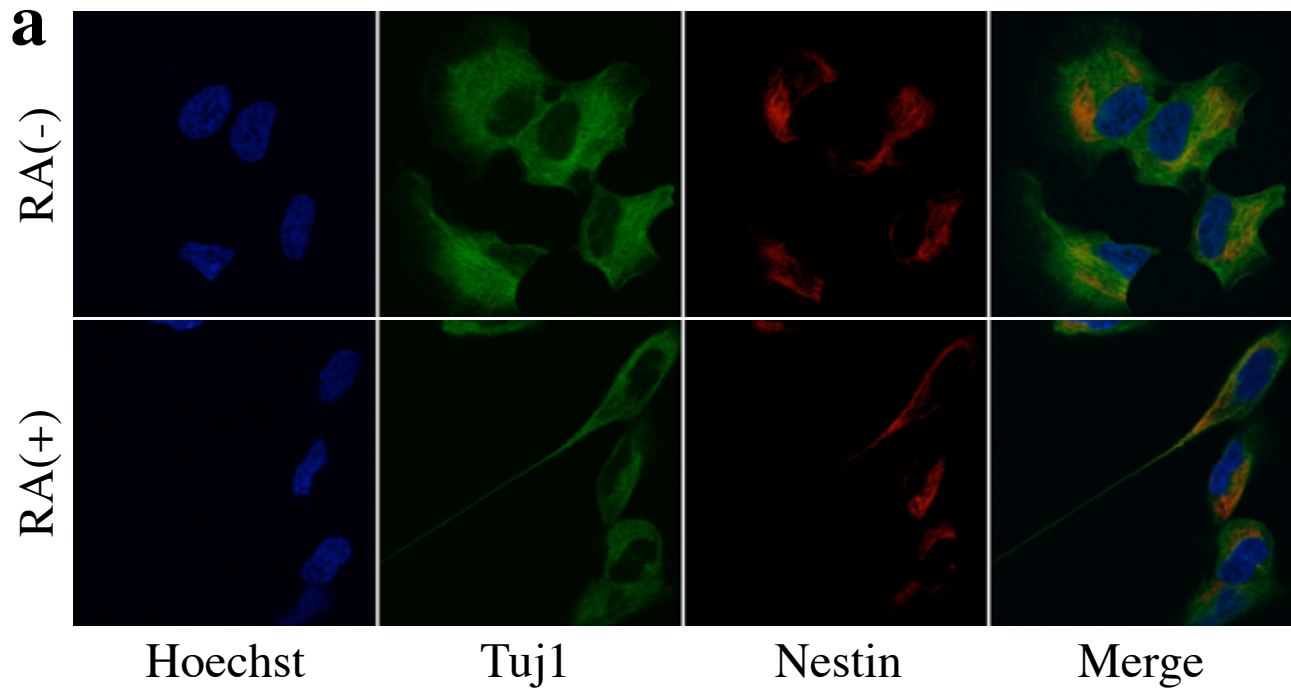
**Figure S1.** Representative reversibility of the fluorescence intensity ratio of quantum dots to temperature. Red and blue dots indicate the mean value of fluorescence intensity ratio at 40°C and 30°C. All plots were calibrated by the photobleaching curve.



**Figure S2.** Fluorescence images of SH-SY5Y cells incorporating quantum dots. Blue: DNA. Red: Quantum dots. Most right is the phase contrast image. Scale bar represents 100  $\mu\text{m}$ .



**Figure S3.** A correlation between the fluorescence intensity ratio of single quantum dot inside SH-SY5Y cell and ambient temperature. Slope is  $0.067/^{\circ}\text{C}$  and  $r^2 = 0.86$ .



**Figure S4.** Neuronal differentiation of SH-SY5Y cells. (a) Confocal fluorescence images of SH-SY5Y cells before and after the treatment with 13-*cis* retinoic acid. Fluorescence of DNA (blue), Tuj1 (green) and Nestin (red) are shown. Scale bar represents 20  $\mu\text{m}$ . (b, c) The expression profile of RA<sub>-</sub> (b) and RA<sub>+</sub> (c) analyzed by flow cytometry. The horizontal axis indicates the expression level of Tuj1, and the vertical axis Nestin.