Electronic Supplementary Information

A Near-Infrared Xanthene Fluorescence Probe for Monitoring Peroxynitrite in Living Cells and Mouse Inflammation Model

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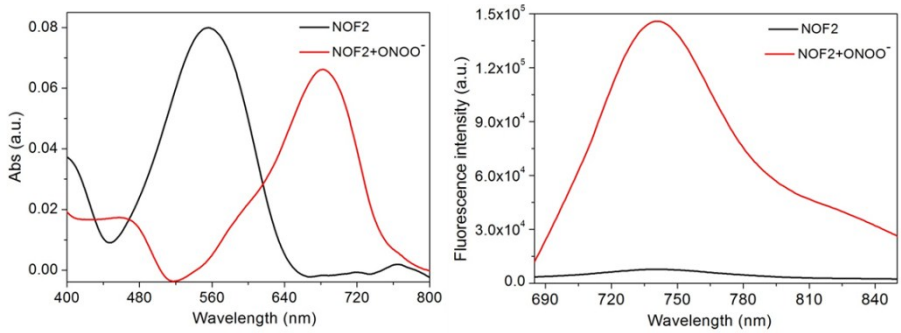

Figure S1. Absorption spectra and Fluorescence spectra of 10 μM NOF2 in absence and presence of 80 μM ONOO- in PBS: DMSO=1:1 (v/v), λ_{ex}= 670 nm.

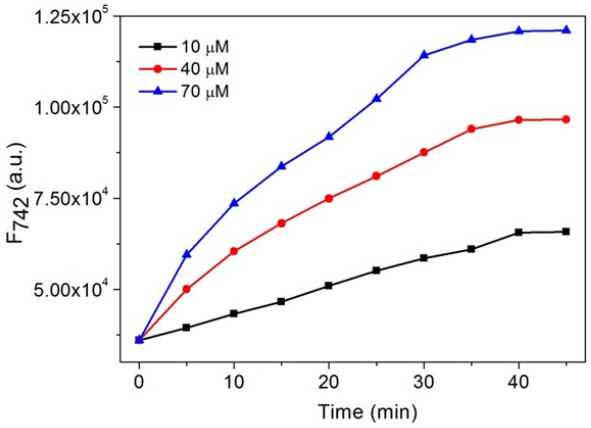

Figure S2. Time course of fluorescence intensity (λ_{em}= 742 nm) of NOF2 (10 μM) in DMSO/PBS (v/v, 1/1) in the presence of 10 μM, 40 μM, and 70 μM $ONOO^-$ during a period of 45 minutes, λ_{ex} = 670 nm.

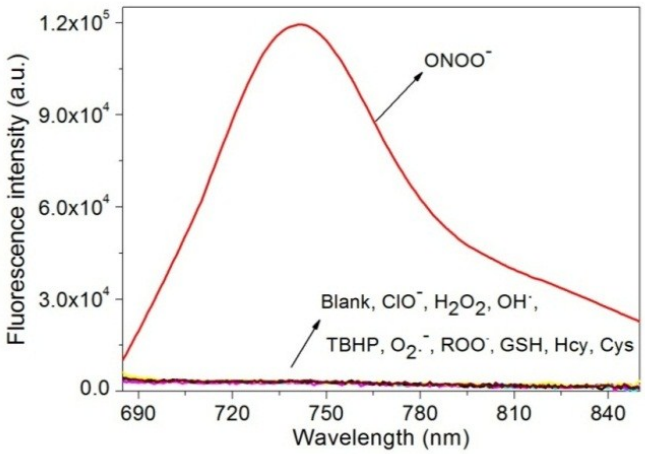

Figure S3. Fluorescence spectra of 10 μM NOF2 in presence of various species ($ONOO^-$, ClO^-, H_2O_2, $^{\bullet}OH$, TBHP, $O_2^{\bullet-}$, ROO^-, GSH, Hcy, Cys), λ_{ex} = 670 nm.

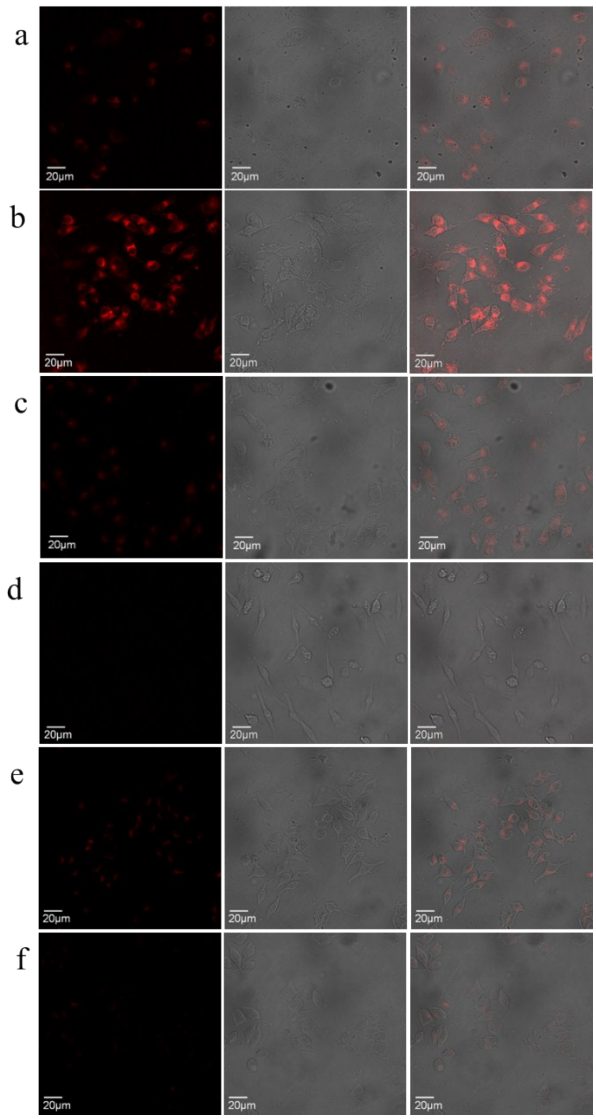

Figure S4. Fluorescence confocal microscopic images of RAW264.7 cells exposed to oxidative stress. Macrophage cells were treated with various inducers and then loaded with 5 μM NOF2 for 60 min (a) control. (b) LPS (1 μg/mL) and IFN-γ (50 ng/mL) for 4 h then PMA (10 nM) for 30 min. (c) AG (1 mM), LPS (1 μg/mL), and IFN-γ (50 ng/mL) for 4 h then PMA (10 nM) for 30 min. (d) TEMPO (100 μM), LPS (1 μg/mL), and IFN-γ (50 ng/mL) for 4 h then PMA (10 nM) for 30 min. (e) Cells treated with 100 μM NaClO for 30 min. (f) cells treated with 100 μM H_2O_2 for 10 min.

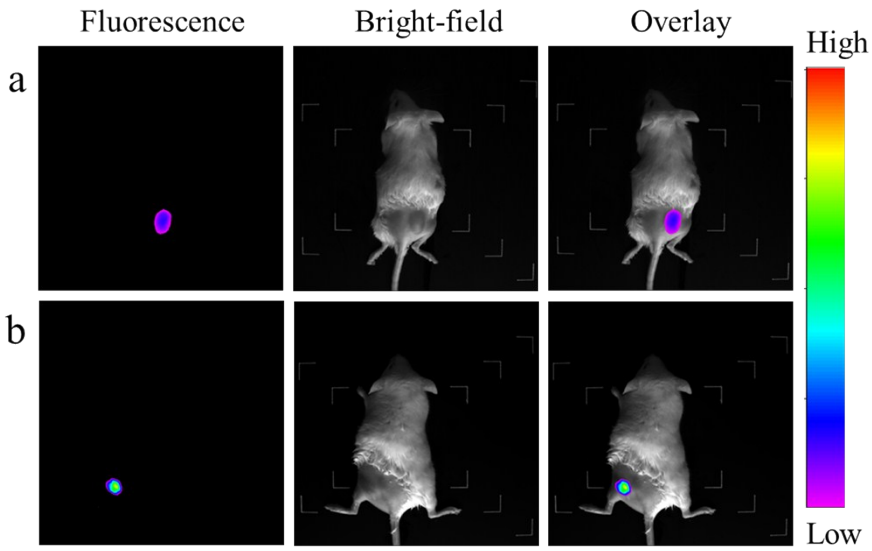

Figure S5. (a) The mouse was given an i.p. injection of LPS for 4 h then injected with PMA and TEMPO, then followed by injection of NOF2 (100 μL, 50 μM in saline). (b) The mouse was i.p. injected with LPS for 4 h, injected with PMA, followed by injection of NOF2.

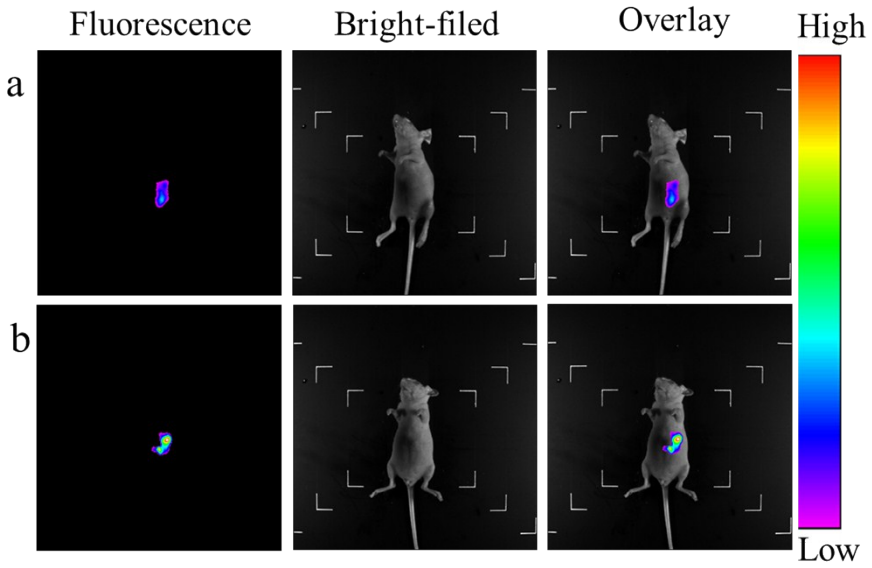

Figure S6. (a) The mouse was given an i.p. injection of LPS for 4 h then injected with PMA and AG (1 mM, 100 μL), then followed by injection of NOF2. (b) The mouse was i.p. injected with LPS for 4 h, injected with PMA, followed by injection of NOF2.