Electronic Supplementary Information for

A functional ruthenium(II) complex for imaging biothiols in living body

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Fig. S1. Luminescence intensities of [Ru(bpy)$_2$(DNS-bpy)](PF$_6$)$_2$ (10 µM) upon addition of various species (500 µM) in 1:4 ethanol-50 mM HEPES buffer of pH 7.2. (a) blank; (b) H$_2$S; (c) Cys; (d) N-acetylcysteine.
**MTT Assay.** NCI-H1688 cells were cultured in RPMI-1640 medium (Sigma-Aldrich, Inc.), supplemented with 10% fetal bovine serum (Corning Incorporated), 1% penicillin (Gibco), and 1% streptomycin (Gibco) at a density of 10^5 cells/mL in a tissue culture plate. After [Ru(bpy)_{2}(DNS-bpy)](PF_{6})_{2} (final concentration: 0, 50, 100, 150, 200 μM) was added to the medium, the cells were incubated at 37 °C in a 5% CO_{2}/95% air incubator for 4 h, and then the culture medium was removed. The cells were further incubated for 4 h in the culture medium containing 20 μL of a PBS solution of 3-(4,5-dimethyl-2-thiazoyl)-2,5-diphenyltetrazolium bromide (MTT, Sigma, final concentration: 833 μg/mL). After the supernatants were removed, the cells were dissolved in 80 μL DMSO and then the absorbance at 540 nm was measured in a Infinite M200 Pro Microplate Reader.

![Fig. S2. Viabilities of the NCI-H1688 cells after incubated with different concentrations of [Ru(bpy)_{2}(DNS-bpy)](PF_{6})_{2} for 4 h.](image-url)