# Fluorescent Probe based on Hydroxylnaphthalene 2-Cyanoacrylate: Fluoride Ions Detection and its Bio-imaging in Live Cell

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Contents

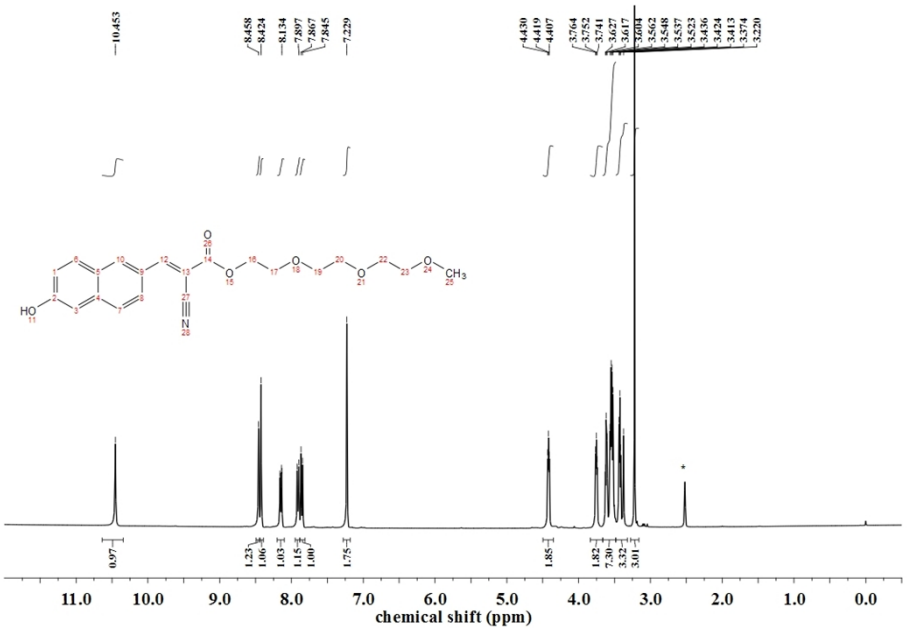


Fig. S1 $^{1}$H NMR spectrum of probe **1** in DMSO-$d_6$. The solvent are marked with asterisks.

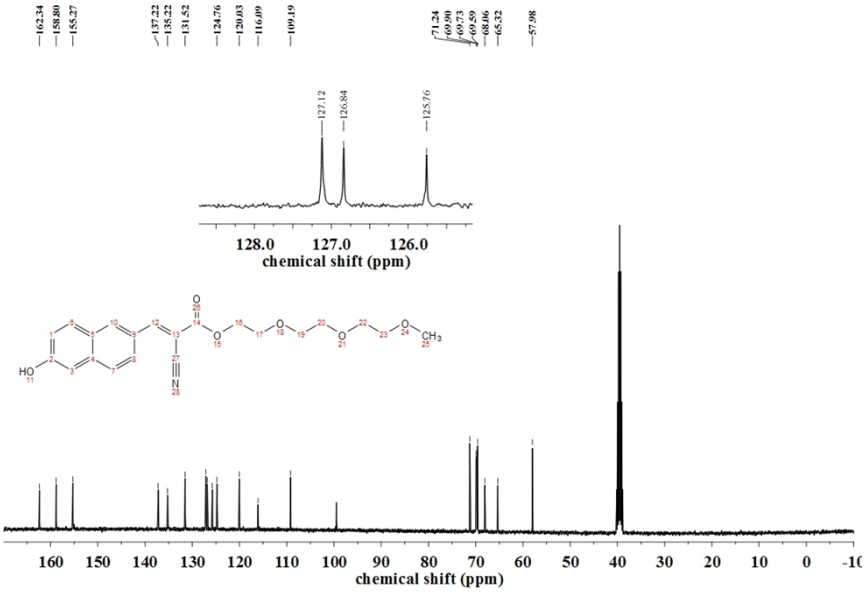


Fig. S2 $^{13}C$ NMR spectrum of probe **1** in DMSO-$d_6$.

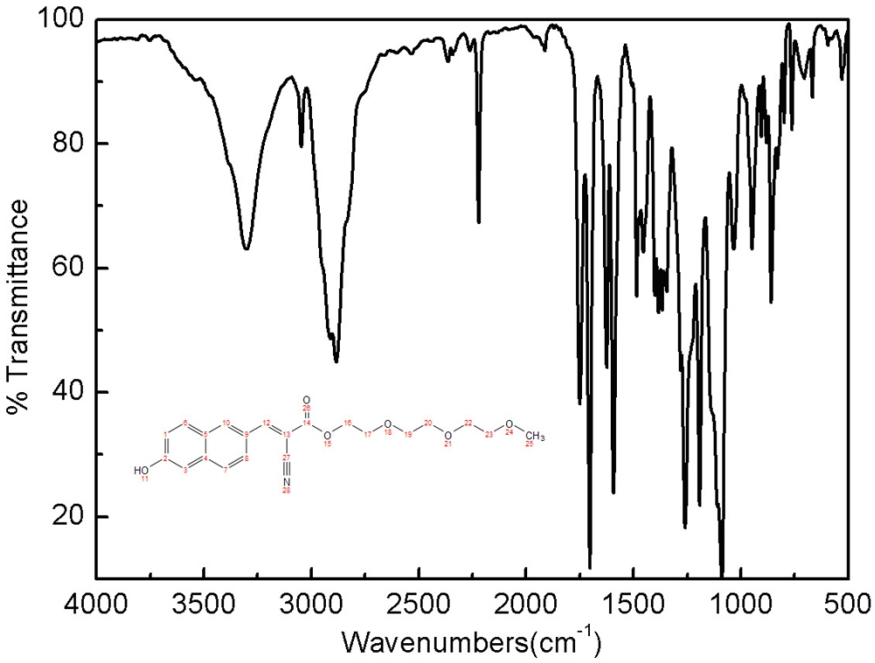


Fig. S3 IR spectrum of probe **1**

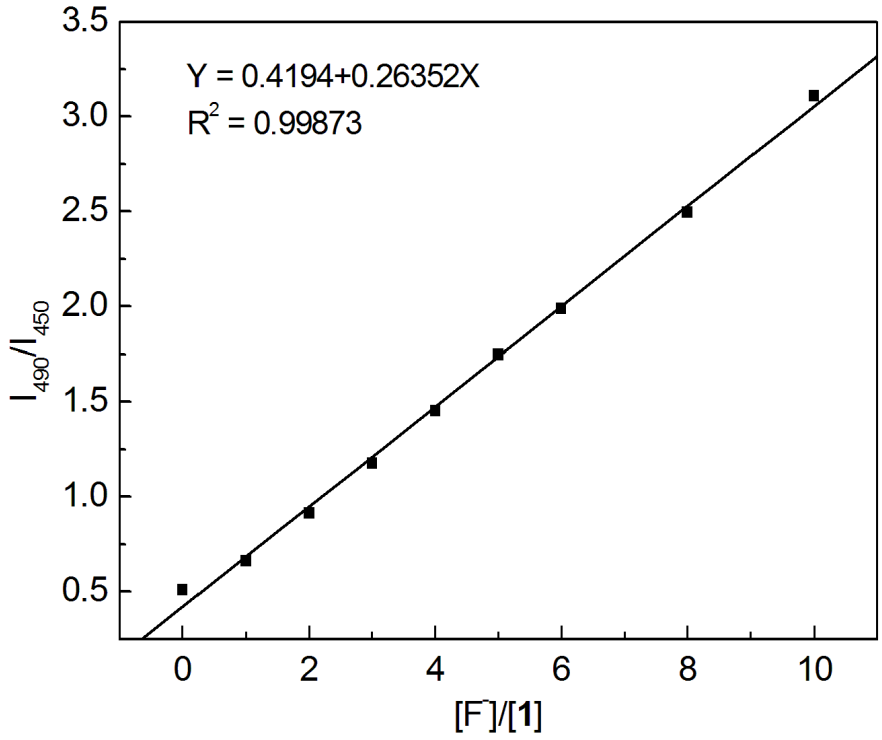


Fig. S4 Emission ratio $I_{490}/I_{450}$ of probe **1** (30 μM) as a function of $F^-$ concentration in the range of 0~10 equiv upon excitation at 388 nm.

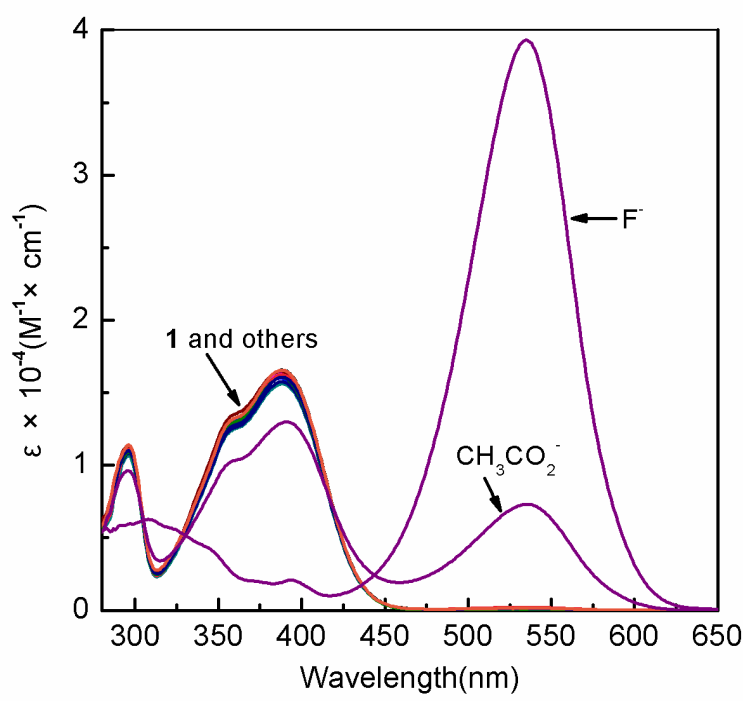


Fig. S5 Absorption response of probe **1** (30 μM) in PBS buffer (pH 7.4, 10 mM, containing 1% DMSO) in the presence of various anions including $F^-$, $NO_3^-$, $Br^-$, $Cl^-$, $HSO_4^-$, $CO_3^{2-}$, $S^{2-}$, $I^-$, $N_3^-$, $PO_4^-$, $SCN^-$ and $CH_3COO^-$(100 μM for each ).

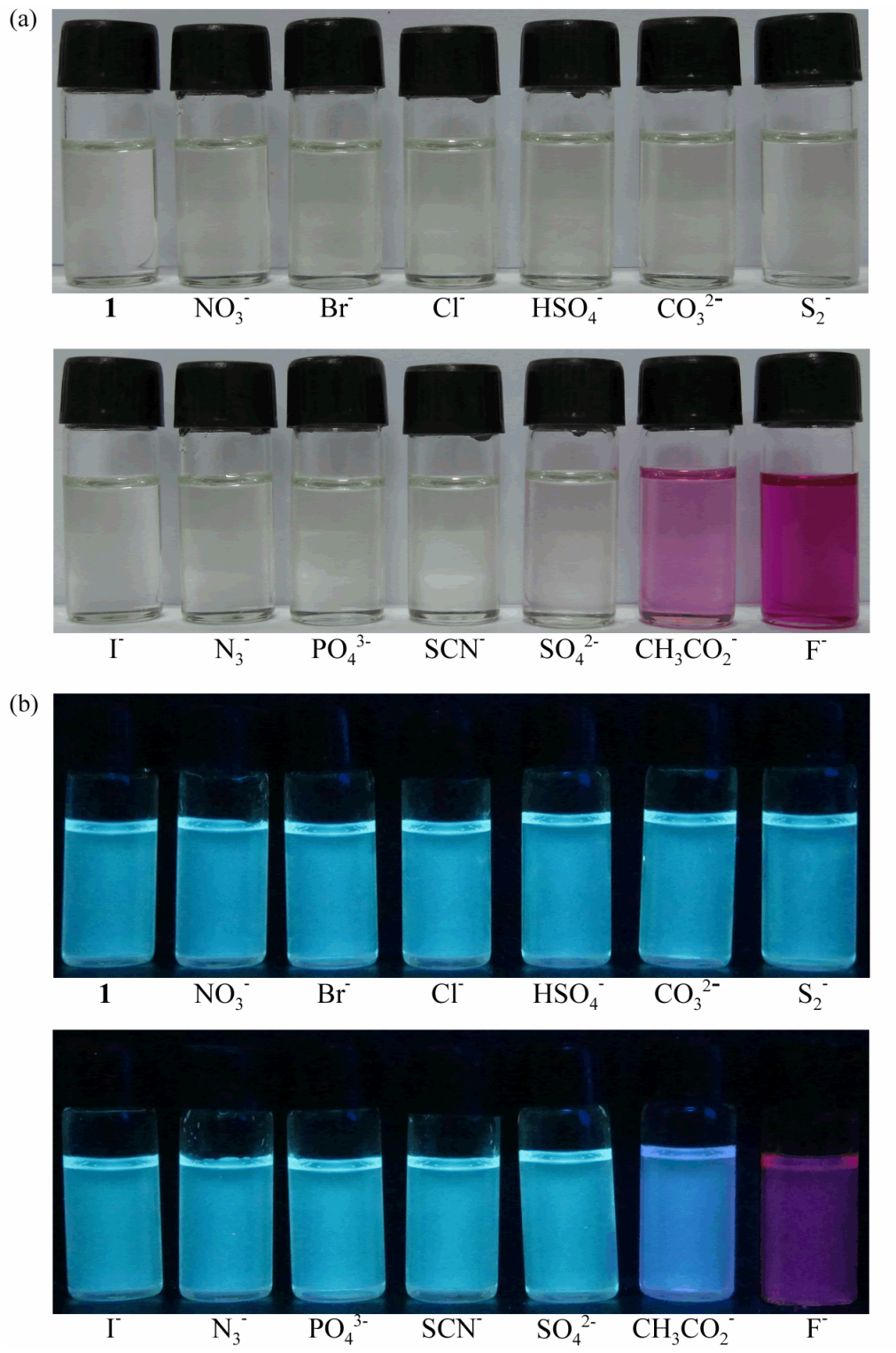


Fig. S6 Fluorescence and Color changes of probe **1** (30 μM) to various anions in PBS buffer (pH 7.4, 10 mM, containing 1% DMSO) in the presence of various anions ([anion] = 150 μM). (a) with excitation at 365 nm using UV lamp. (b) without excitation.

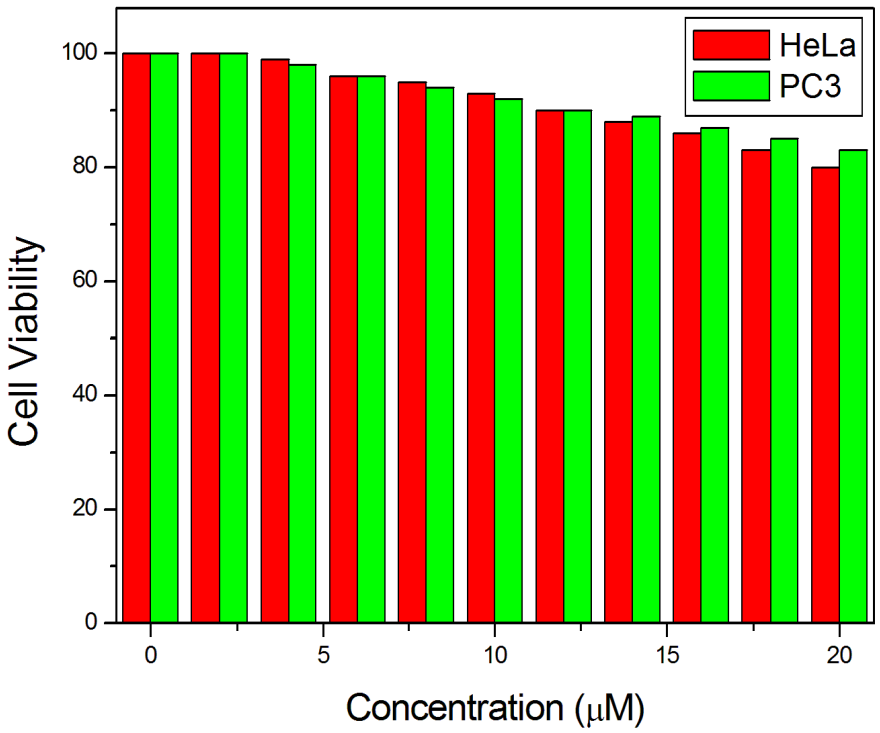


Fig. S7 Percentage of viable HeLa and PC3 cells after treatment with indicated concentrations of probe **1** after 24 hours.