Electronic Supplementary Material (ESI) for Analytical Methods.

Supporting Information

Real-time Imaging Viscosity in Mitochondrial Matrix by a Red-emissive Molecular Rotor

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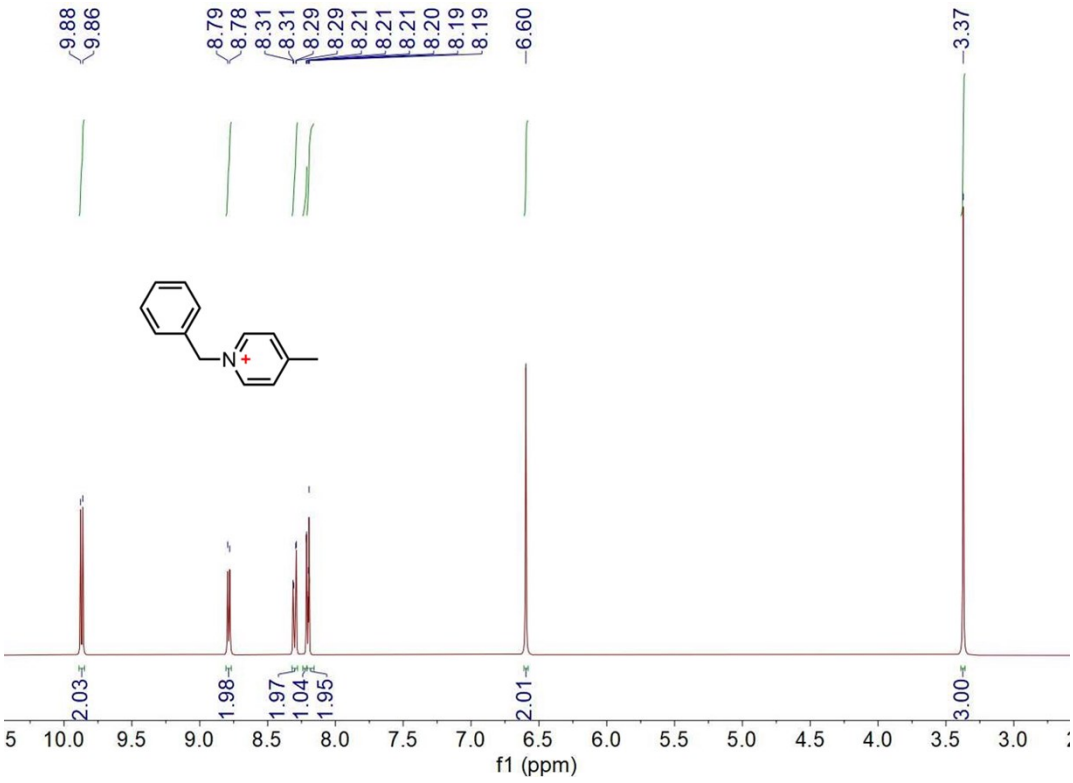

Fig. S1 ^{1}H-NMR spectrum of compound 1 in deuterated methanol.

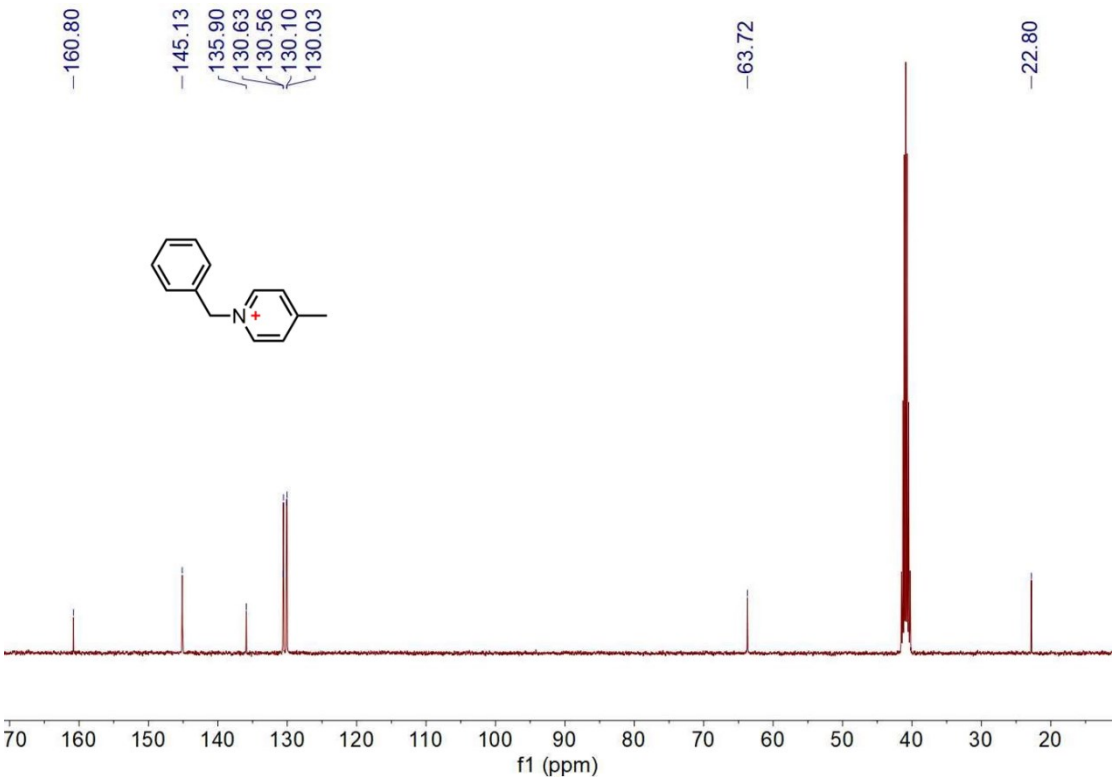

Fig. S2 ^{13}C-NMR spectrum of compound 1 in deuterated methanol.

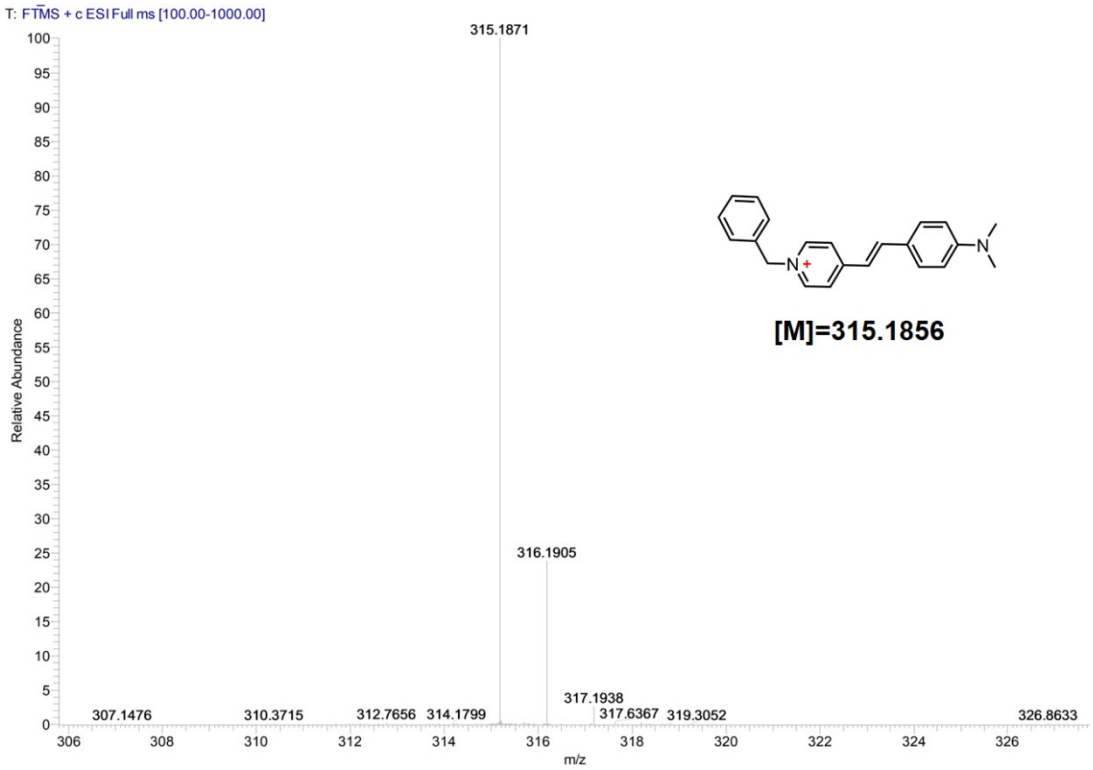

Fig. S3 HR-MS spectrum of BSP.

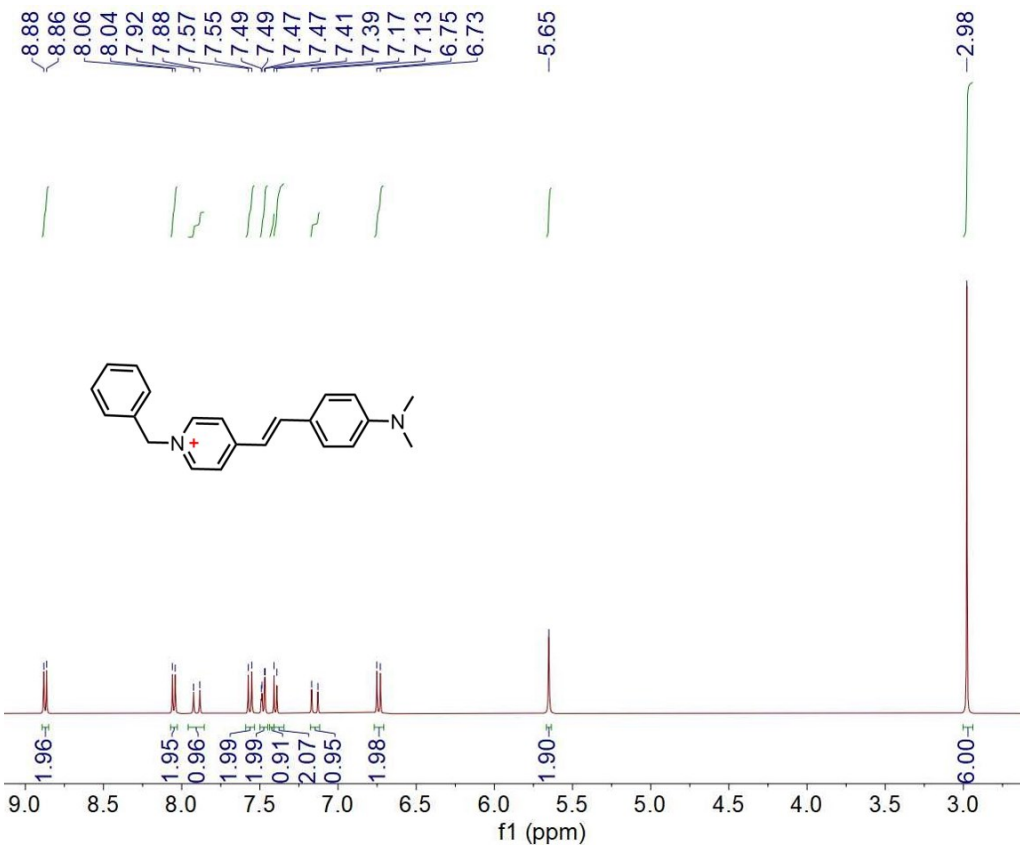

Fig. S4 ^{1}H-NMR spectrum of BSP in d_6-DMSO.

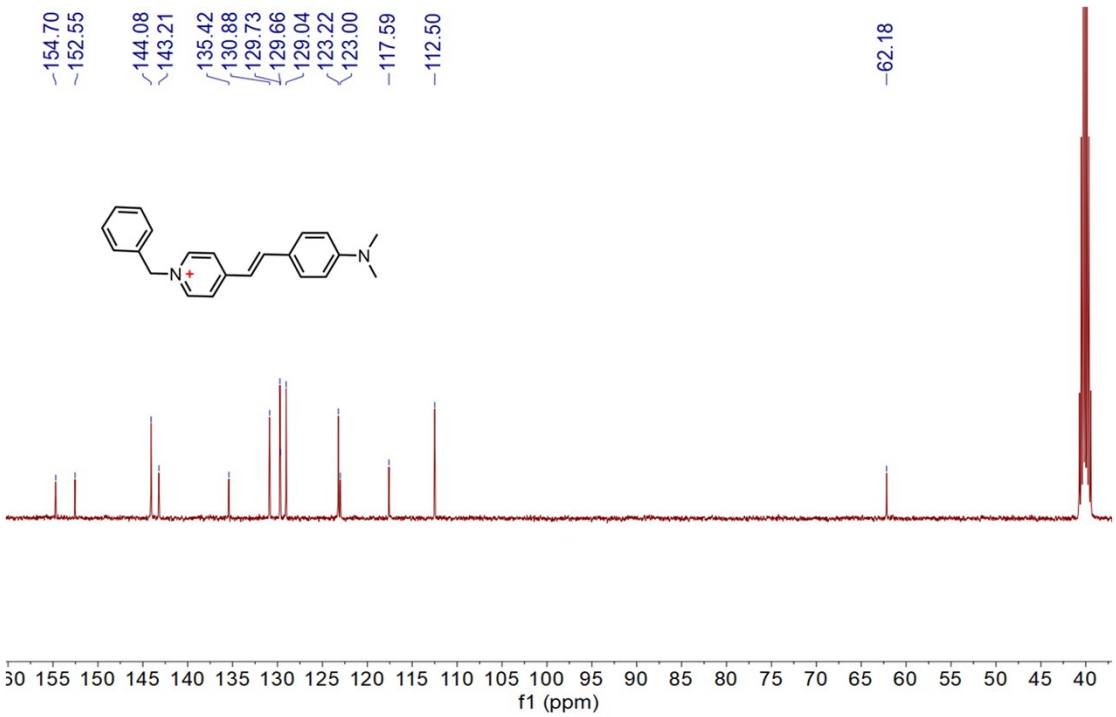

Fig. S5 ^{13}C-NMR spectrum of BSP in d_6-DMSO.

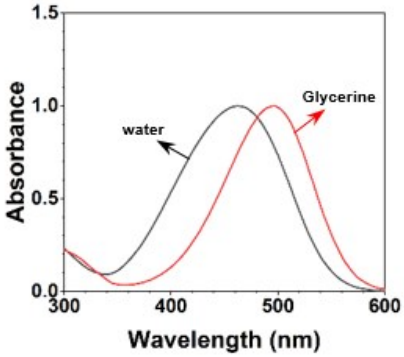

Fig. S6 Absorption spectrum of BSP in PBS and glycerine.

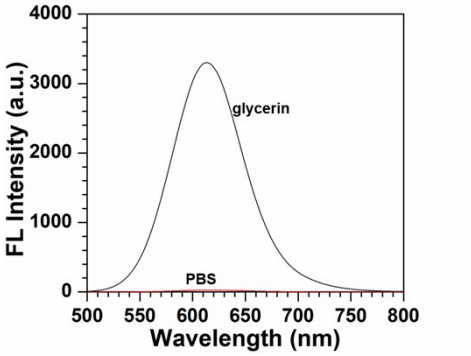

Fig. S7 Fluorescence spectra of the BSP probe in PBS and glycerine.

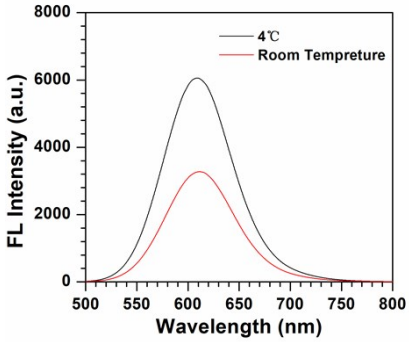

Fig. S8 Temperature effects of probe BSP (10 μM) in glycerine.

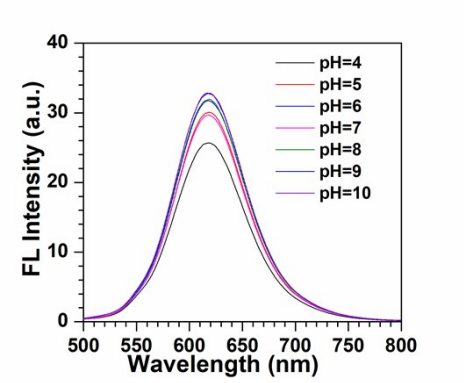

Fig. S9 pH effects of probe BSP (10 μM) in PBS.

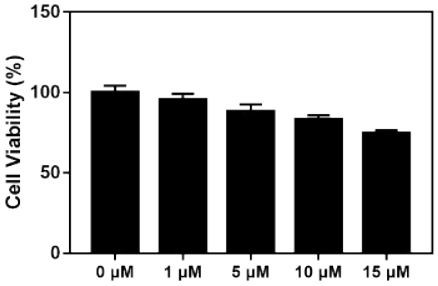

Fig. S10 Hep G2 cell viability in the presence of BSP measured by the MTT assay. The error bars represent the mean errors from 5 measurements.

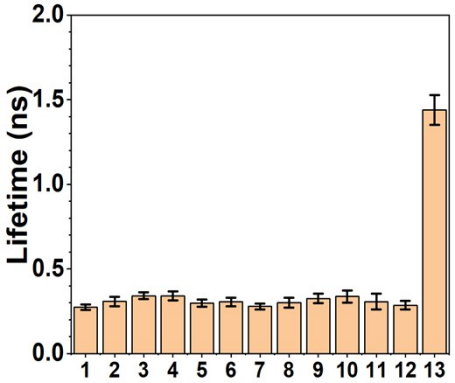

Fig. S11 The fluorescence lifetime selectivity of BSP (10 μM) to various analytes: 1: blank, 2: RNA, 3: DNA, 4: BSA, 5: Ca^{2+}, 6: Mg^{2+}, 7: H_2O_2, 8: HClO, 9: H_2S, 10: Cys, 11: Lys, 12: Trp, 13: glycerine. The error bars represent the mean errors from 3 tests.

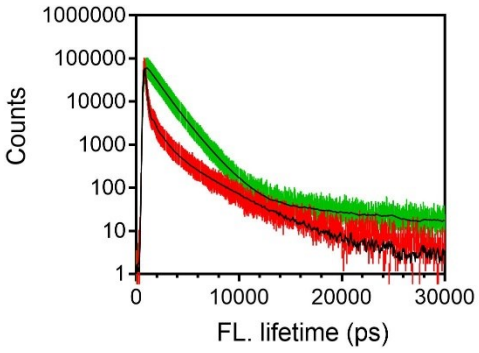

Fig. S12 Fluorescence lifetime decays spectra of BSP in PBS (red) and glycerine (green).