Supporting Information

A Sensitive BODIPY-based Fluorescent Probe for Detecting Endogenous Hydroxyl Radicals in living Cells.

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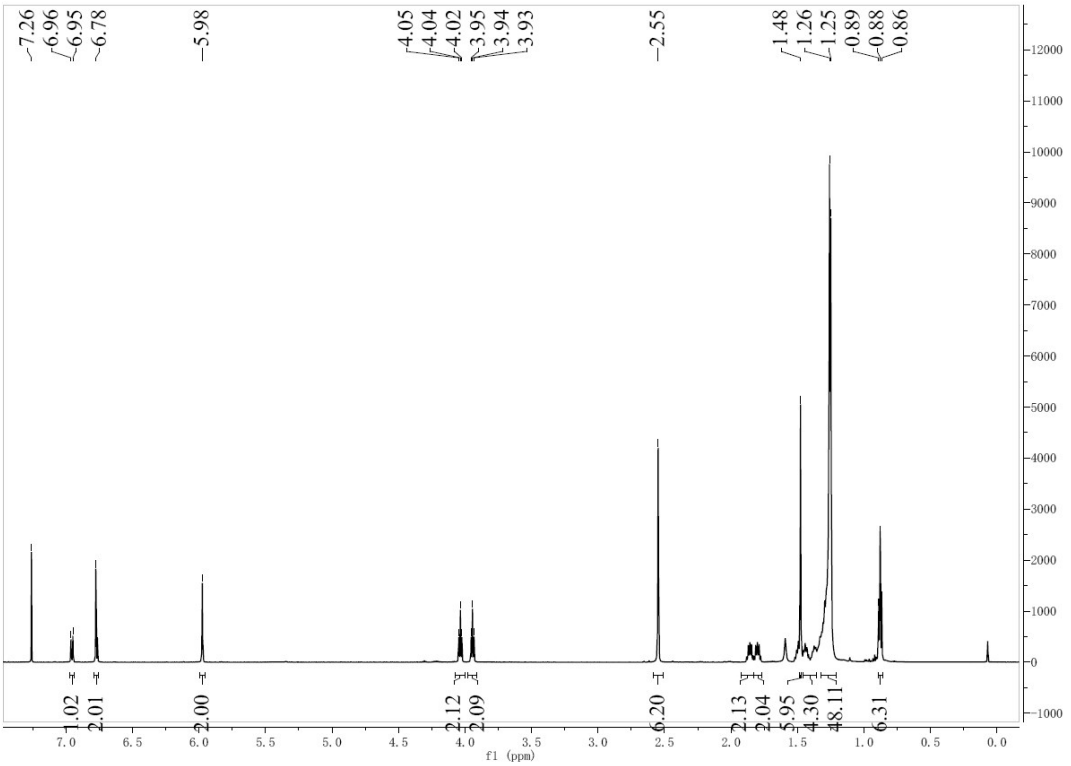

Figure S1: ^{1}H NMR spectrum of compound **2** in $CDCl_3$.

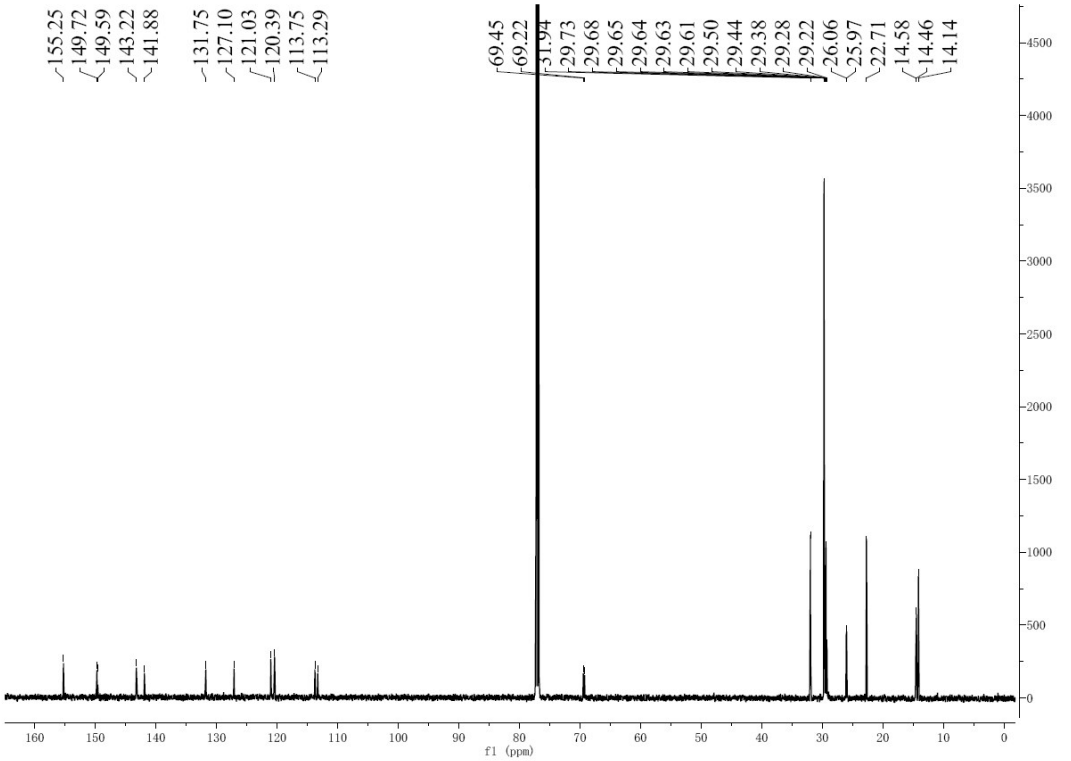

Figure S2: ^{13}C NMR spectrum of compound **2** in $CDCl_3$.

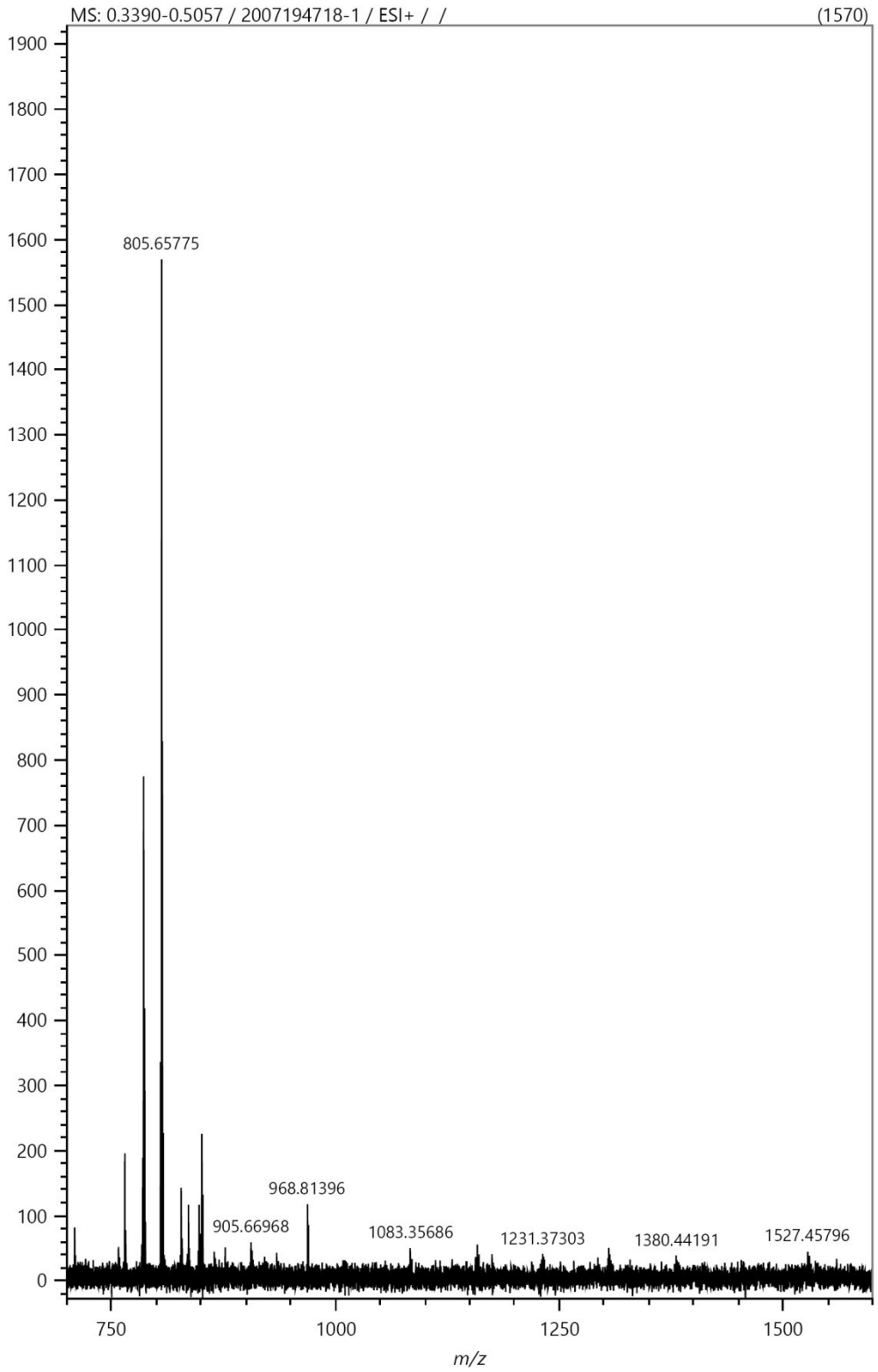

Figure S3. HRMS spectrum of compound **2**

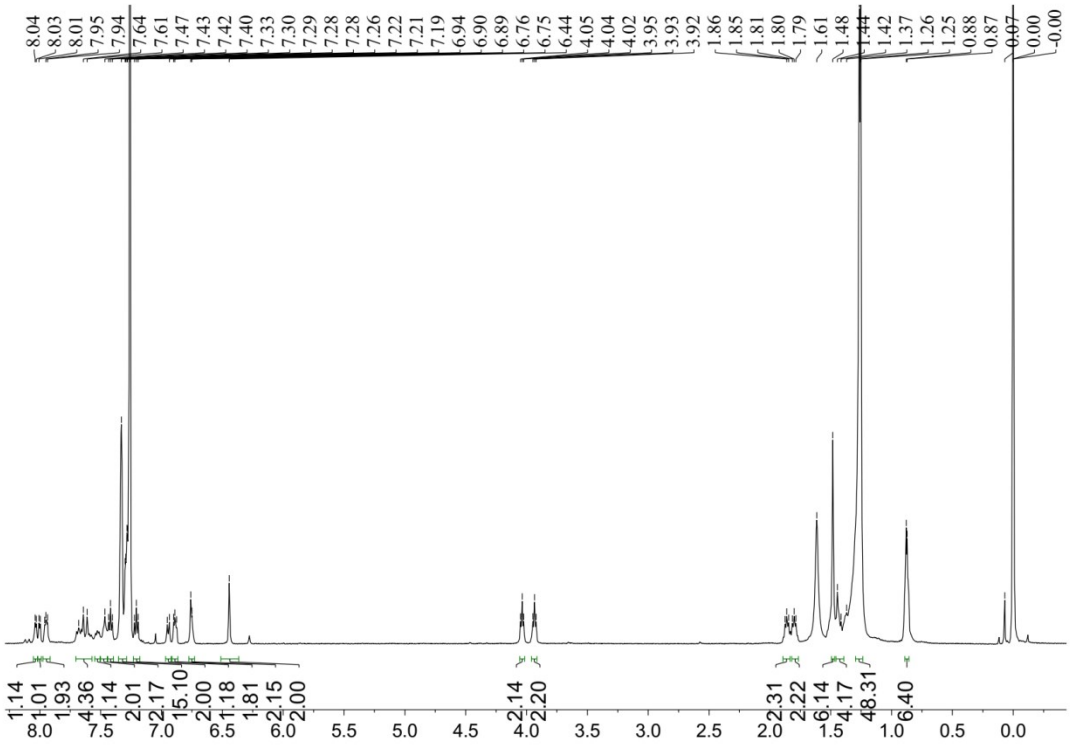

Figure S4: ^{1}H NMR spectrum ofprobe **1** in $CDCl_3$.

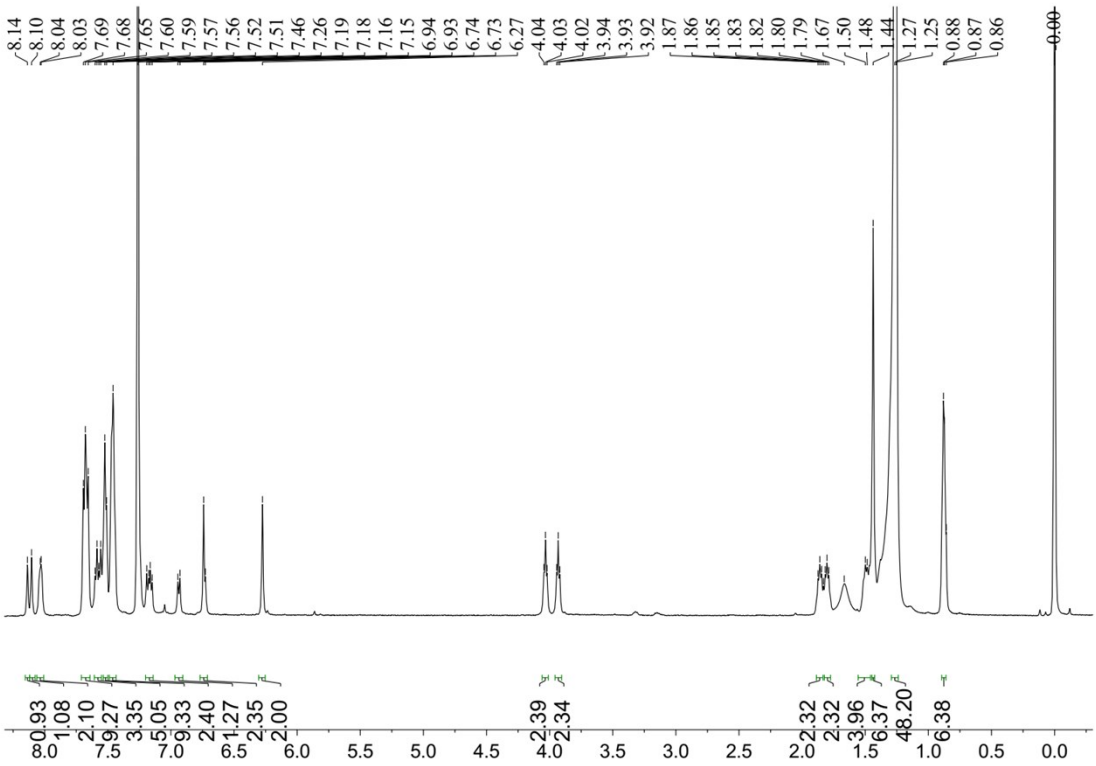

Figure S5: ^{1}H NMR spectrum of probe **OX-1** in $CDCl_3$.

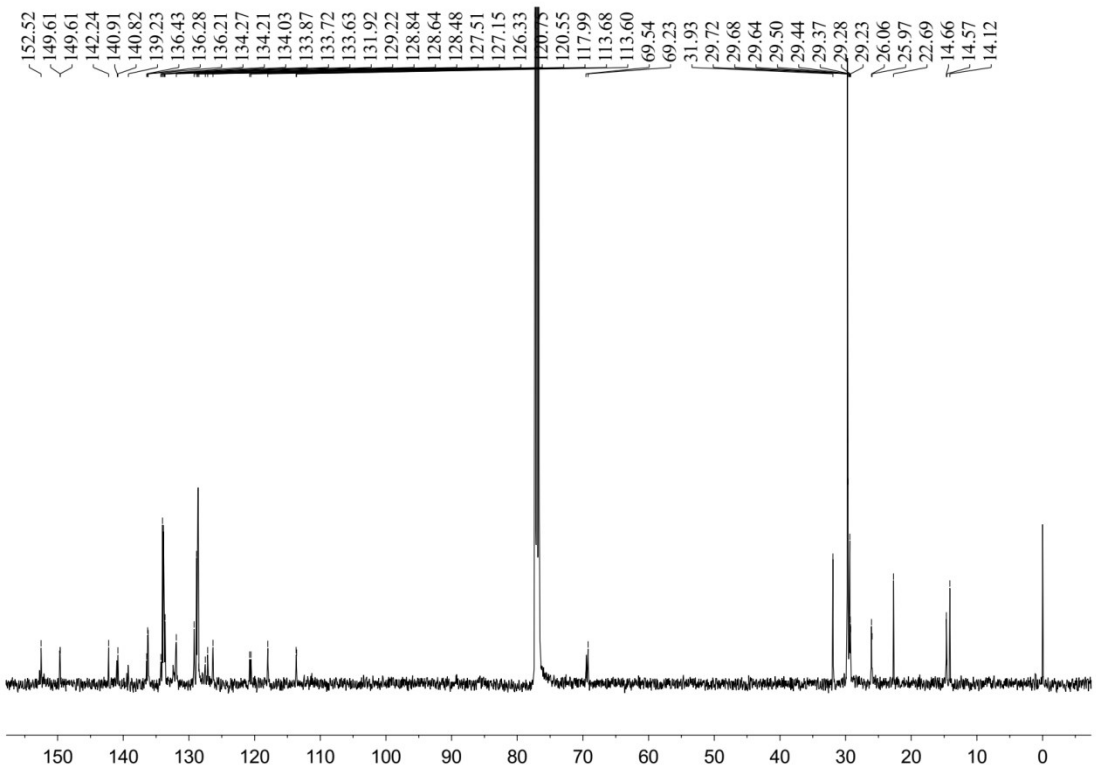

Figure S6: ^{13}C NMR spectrum of probe **1** in $CDCl_3$.

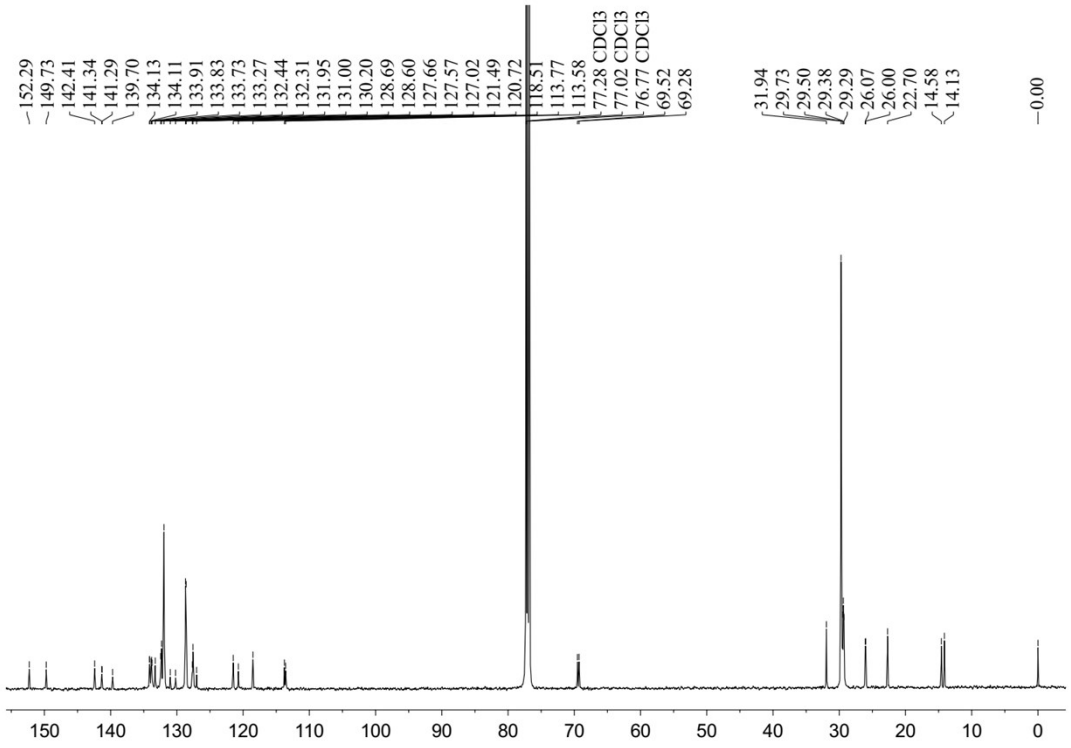

Figure S7: ^{13}C NMR spectrum of probe **OX-1** in $CDCl_3$.

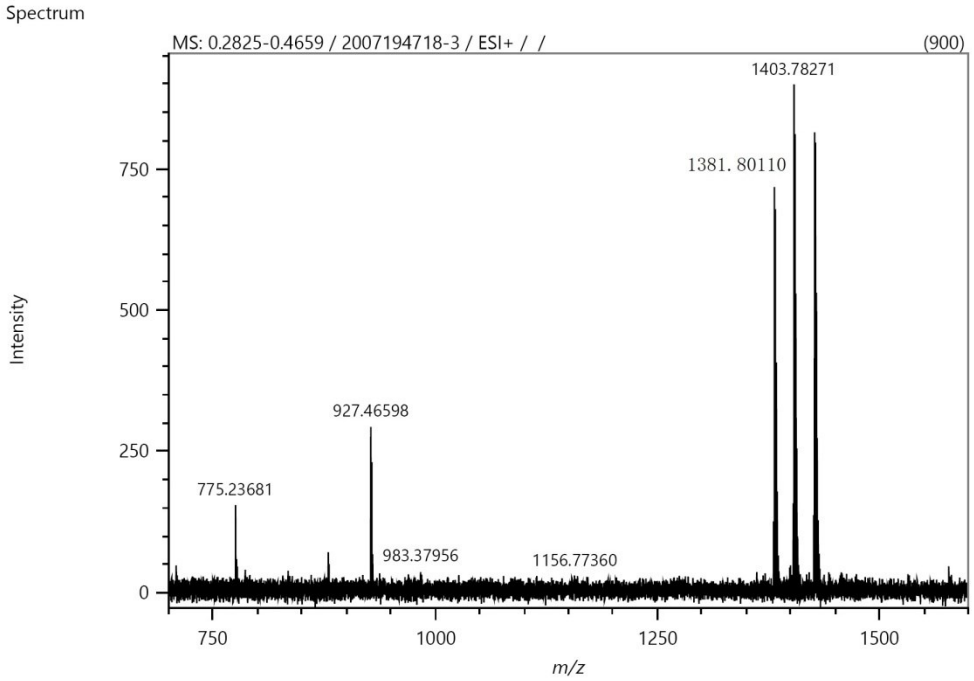

Figure S8. HRMS spectrum of probe **OX-1**

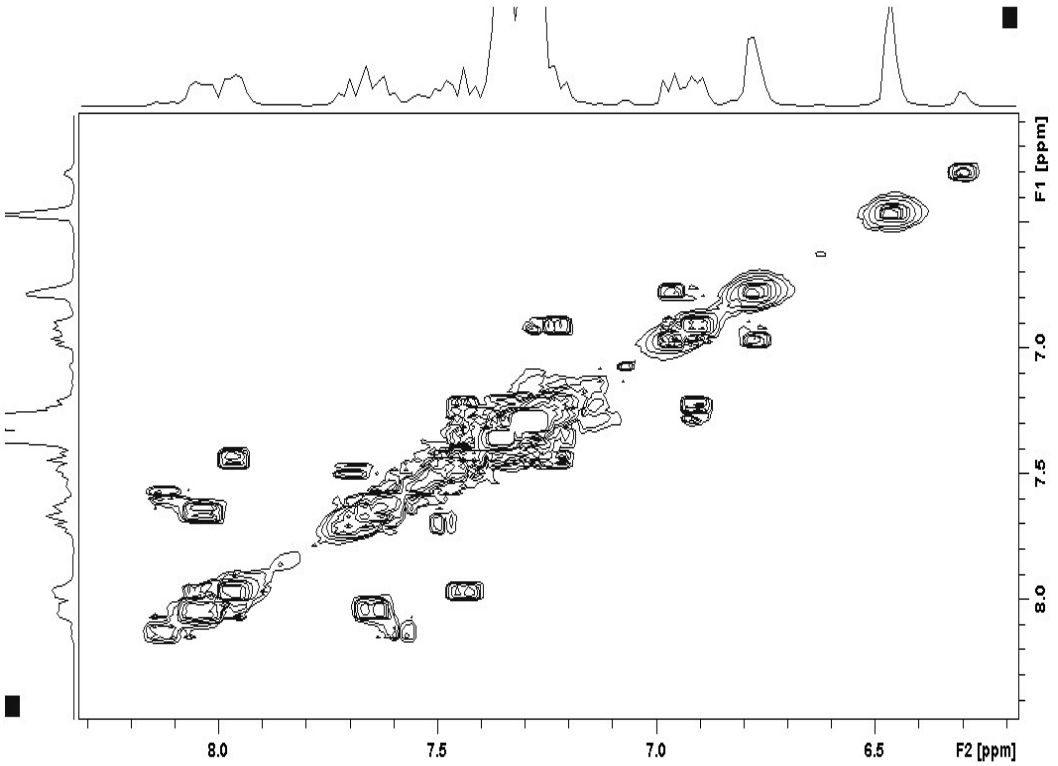

Figure S9: ^{1}H-^{1}H COSY spectrum of probe **1** in $CDCl_3$.

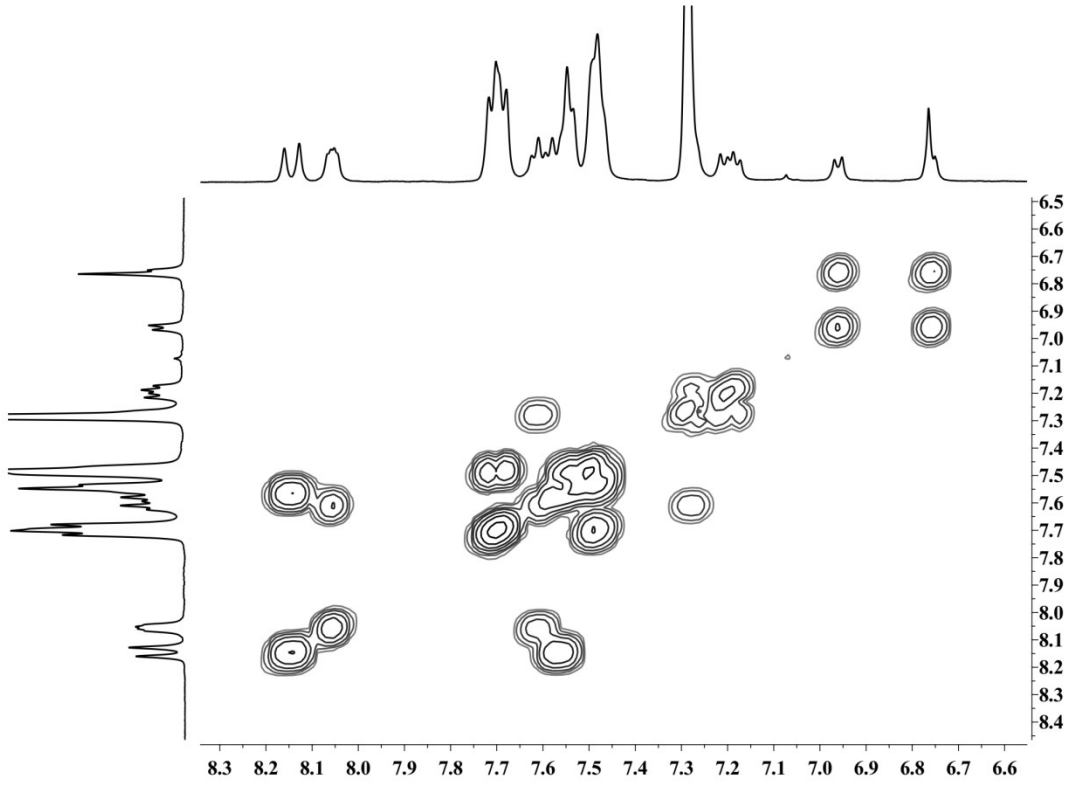

Figure S10: ^{1}H-^{1}H COSY spectrum of compound **OX-1** in $CDCl_3$.

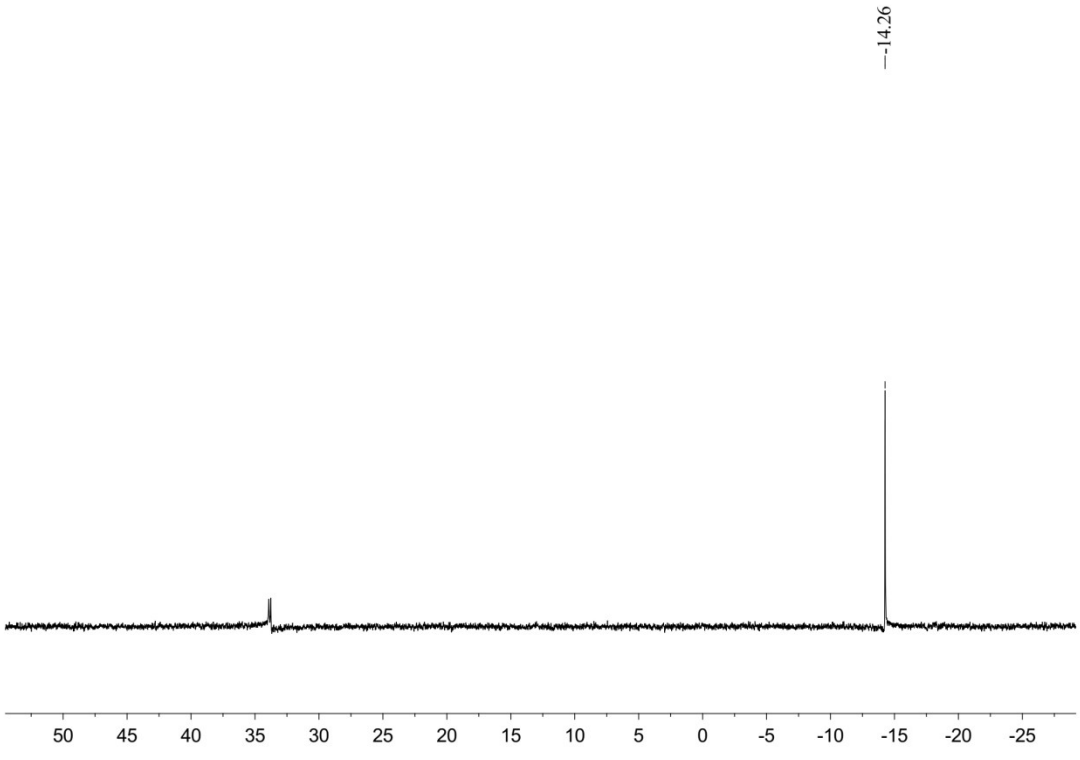

Figure S11: ^{31}P NMR spectrum of probe **1** in $CDCl_3$.

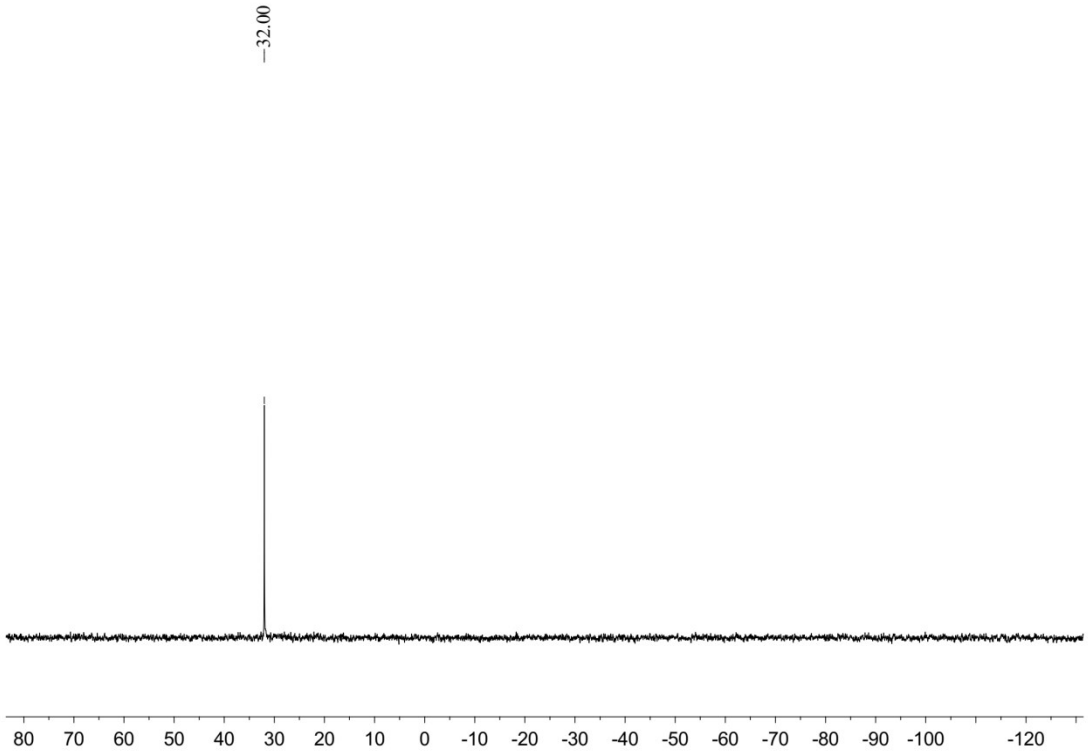

Figure S12: ^{31}P NMR spectrum of probe **OX-1** in $CDCl_3$.

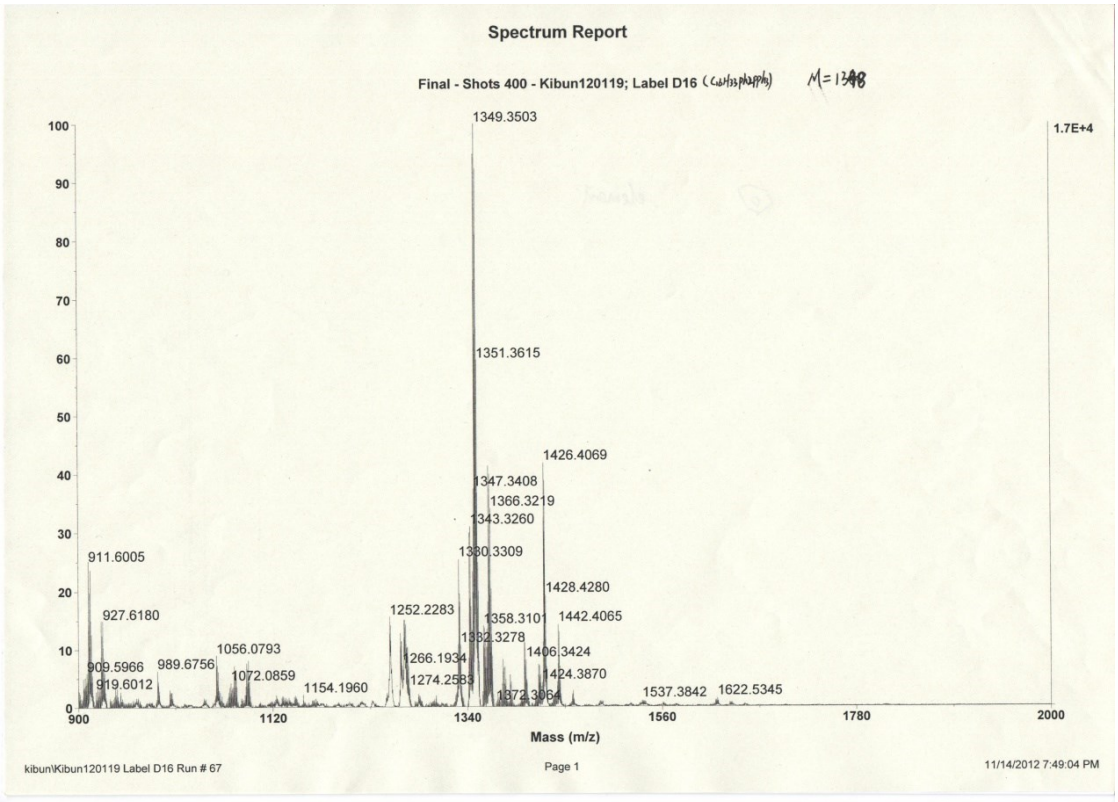

Figure S13: MALDI-TOF MS of probe **1**.

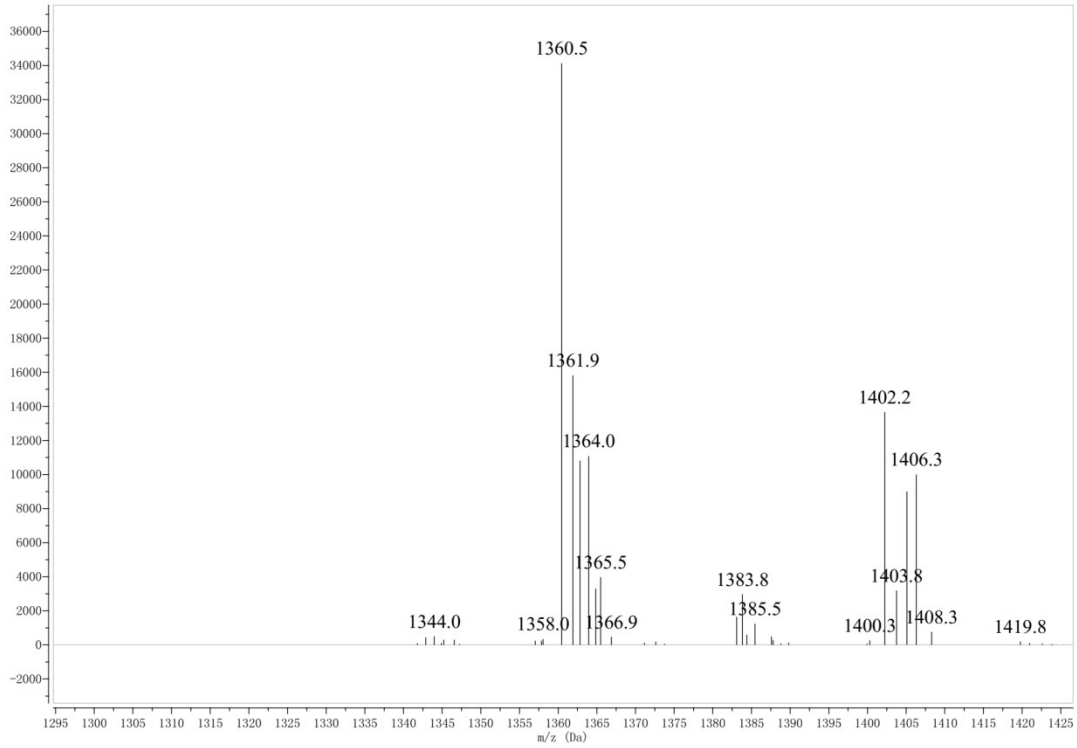

Figure S14: MALDI-TOF MS of **OX-1**.

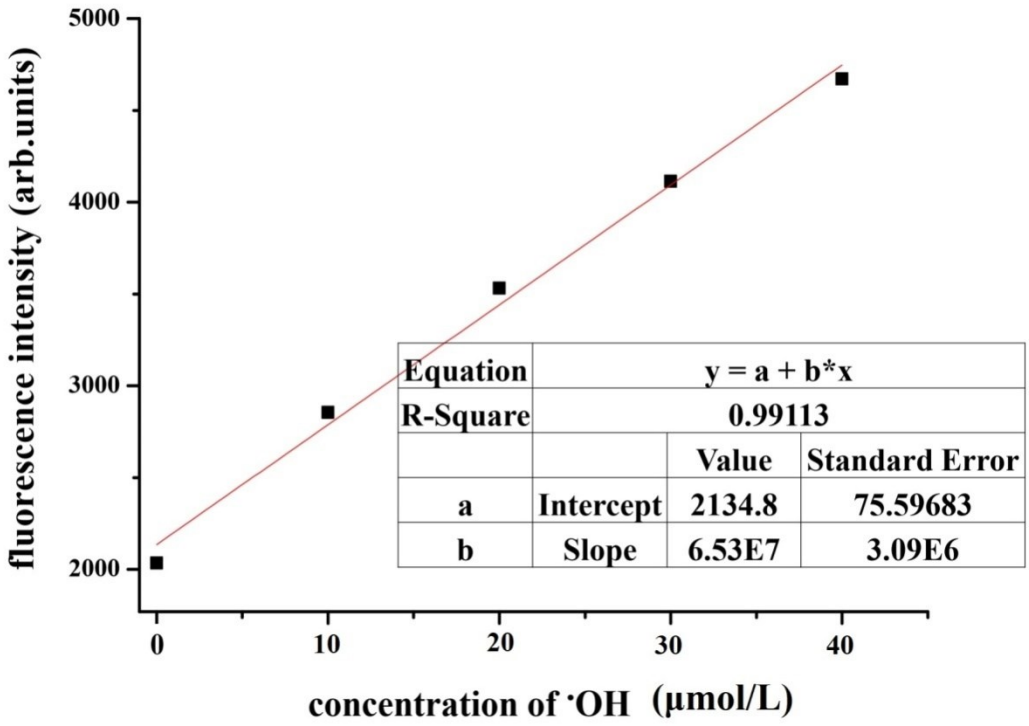

Figure S15: The linear relationship between the fluorescence response and concentration of ·OH (λex = 580 nm, λem = 650 nm).

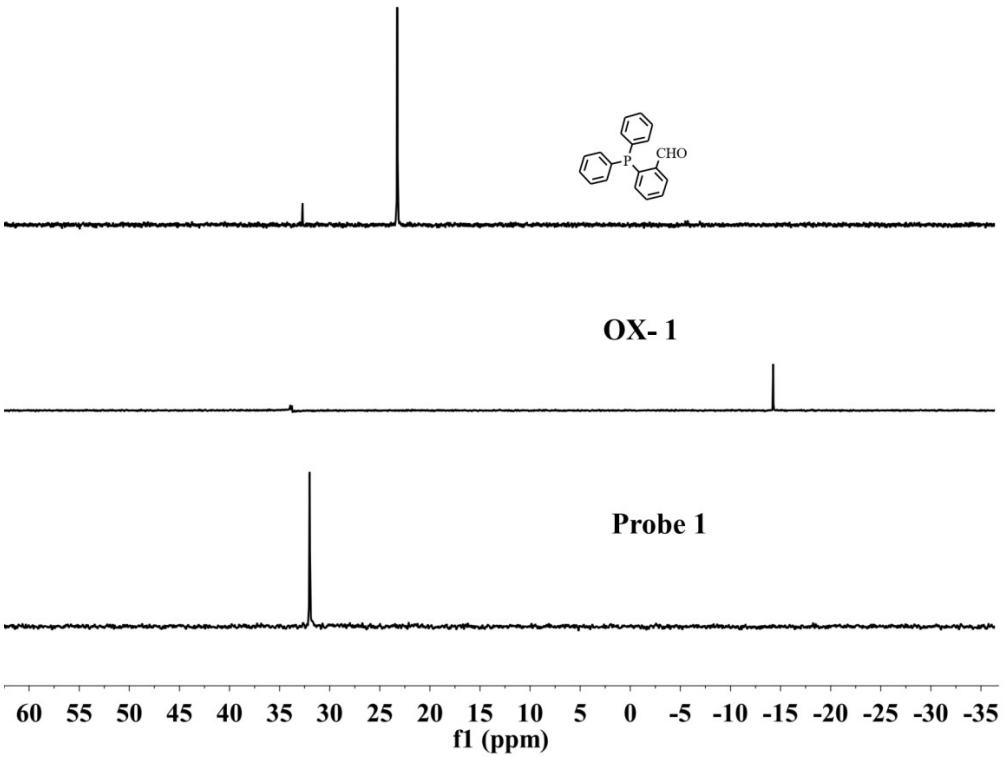

Figure S16: Comparison of ^{31}P NMR spectra of 2-diphenylphosphinobenzaldehyde, probe **1** and compound **OX-1** in $CDCl_3$

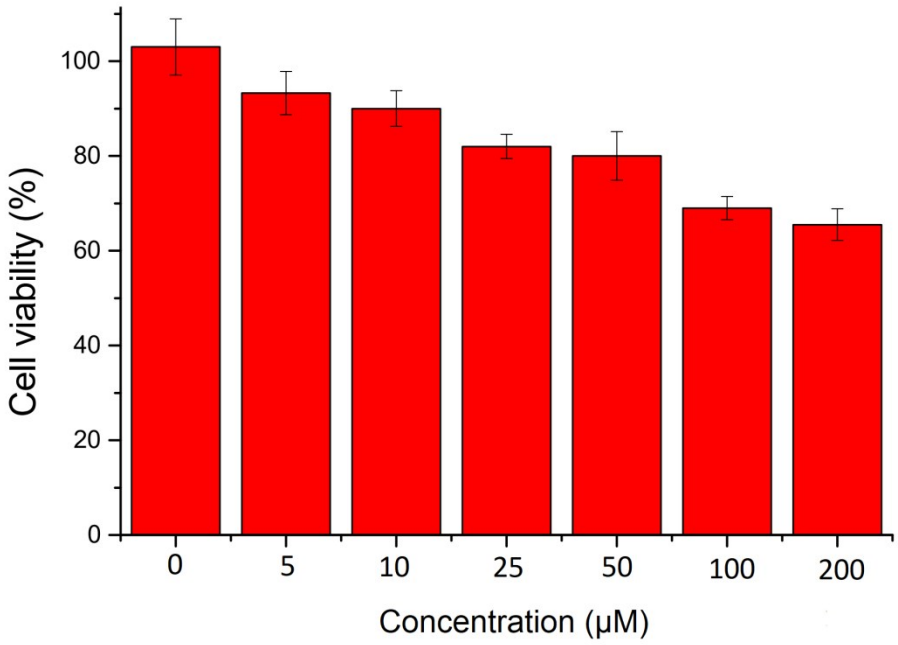

Figure S17: MTT assay of probe **1**.

Table S1: Optical properties of probe **1** and **OX-1** in various solvents at 298 K.

compound	solvent	λ_{abs}^{max}(nm)	λ_{em}	Φ_f
1	Hexane	627, 577,342	642	0.78
	CH_2Cl_2	633, 574, 349	650	0.68
	CH_3OH	627, 576, 344	640	0.69
	CH_3CN	624, 574, 345	640	0.40
	DMSO	628, 581	650	0.26
OX-1	Hexane	625, 574,349	641	0.71
	CH_2Cl_2	630, 574, 355	646	0.63
	CH_3OH	624, 570, 350	639	0.81
	CH_3CN	620, 571, 349	635	0.80
	DMSO	630, 577	647	0.62