Distinguish cancer cells from normal cells by an organelle-targeted fluorescent marker

Hao-Chi Hao,[a] Gang Zhang,[b] Ya-Nan Wang,[a] Ru Sun,*[,a] Yu-Jie Xu[b] and Jian-Feng Ge*[,a]

[a] College of Chemistry, Chemical Engineering and Material Science, Soochow University, No. 199 Ren'Ai Road, Suzhou 215123, China.

[b] School of Radiation Medicine and Protection, Medical College of Soochow University, Soochow University, Suzhou 215123, China.

*Corresponding author. E-mail addresses: ge_jianfeng@hotmail.com (J.-F Ge), sunru924@hotmail.com (R. Sun)

Index

1. FIGURES

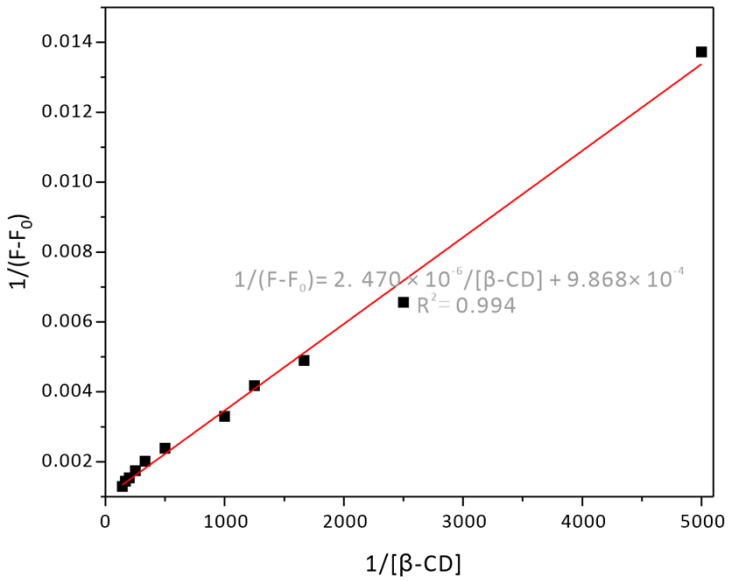

Fig. S1 Double reciprocal plots: $1/(F-F_0)$ versus $1/[\beta\text{-CD}]$.

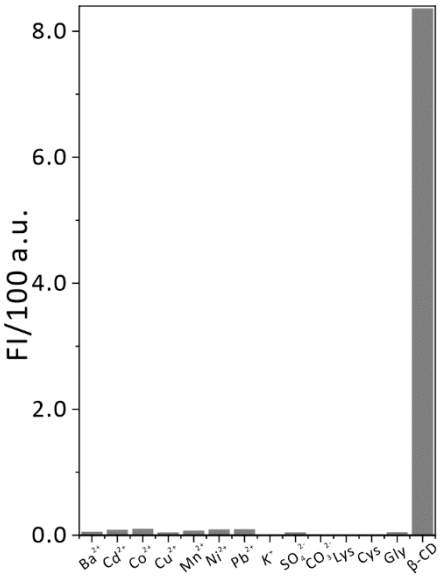

Fig. S2 The fluorescence intensity of probe **1** (10 μM) towards other interfering ions and biomolecules (1 mM) in double-distilled water containing 10% DMSO. (λ_{ex} = 509 nm, slit widths: 3 nm/5 nm).

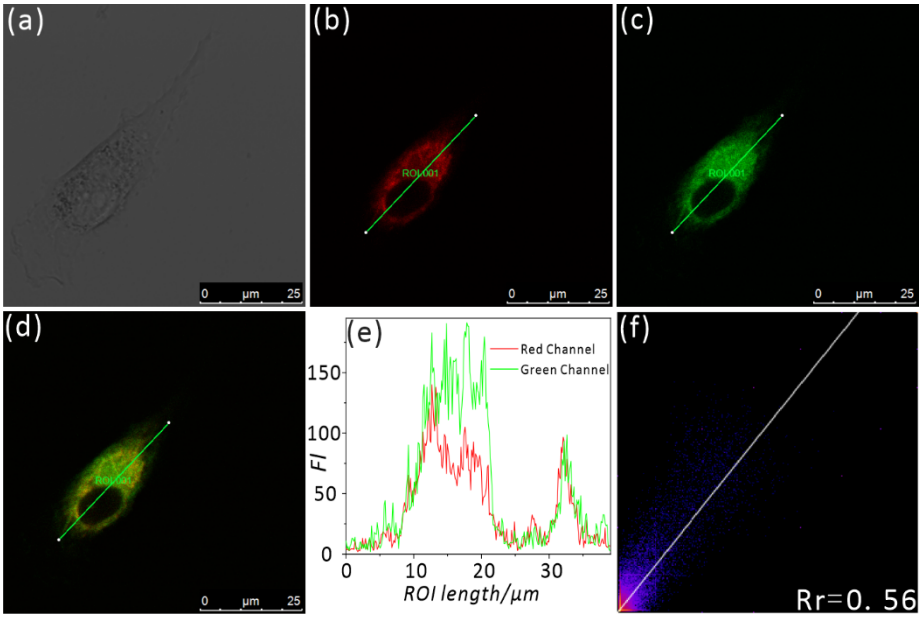

Fig. S3 Fluorescence images of HeLa cells costaining with probe **1** (3 μM) and Green Mito-Tracker (3 μM). (a) Bright-field image; (b) confocal image (red channel) with probe **1**; (c) confocal image (green channel) of Green Mito-Tracker; (d) merged image of (b) and (c); (e) fluorescence intensity of the regions of interest (ROI) across the HeLa cells. (f) fluorescence intensity correlation plot from the red channel and the green channel.

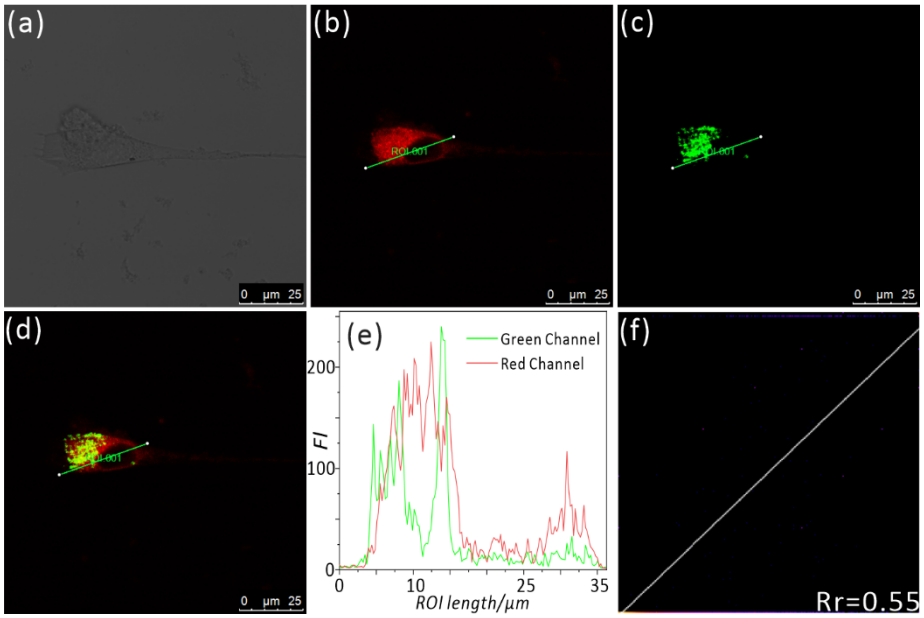

Fig. S4 Fluorescence images of HeLa cells costaining with probe **1** (3 μM) and Green Lysosome-Tracker (3 μM). (a) Bright-field image; (b) confocal image (red channel) with probe **1**; (c) confocal image (green channel) of Green Lysosome-Tracker; (d) merged image of (b) and (c); (e) fluorescence intensity of the regions of interest (ROI) across the HeLa cells. (f) fluorescence intensity correlation plot from the red channel and the green channel.

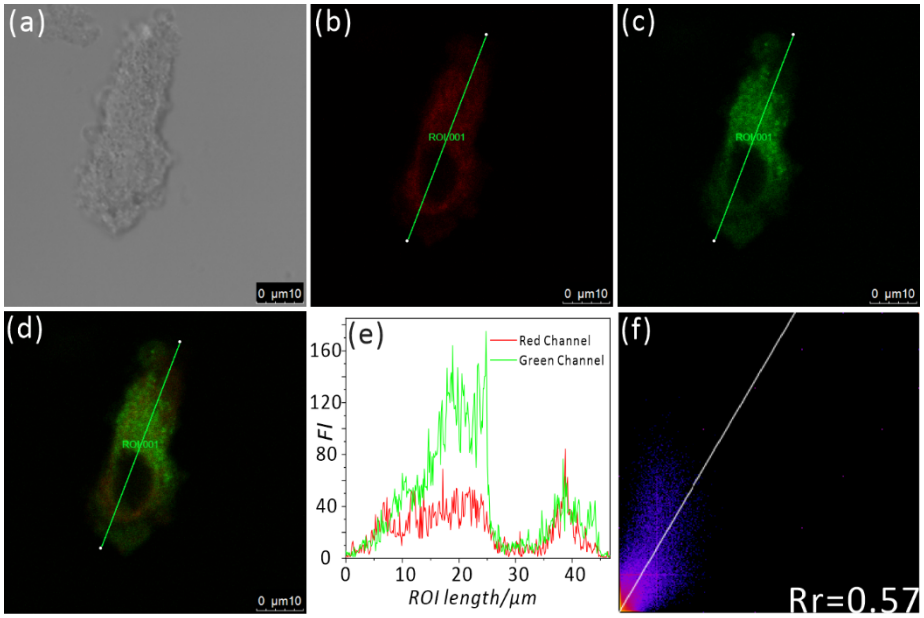

Fig. S5 Fluorescence images of U87 cells costaining with probe **1** (3 μM) and Green Lysosome-Tracker (3 μM). (a) Bright-field image; (b) confocal image (red channel) with probe **1**; (c) confocal image (green channel) of Green Lysosome-Tracker; (d) merged image of (b) and (c); (e) fluorescence intensity of the regions of interest (ROI) across the U87 cells. (f) fluorescence intensity correlation plot from the red channel and the green channel.

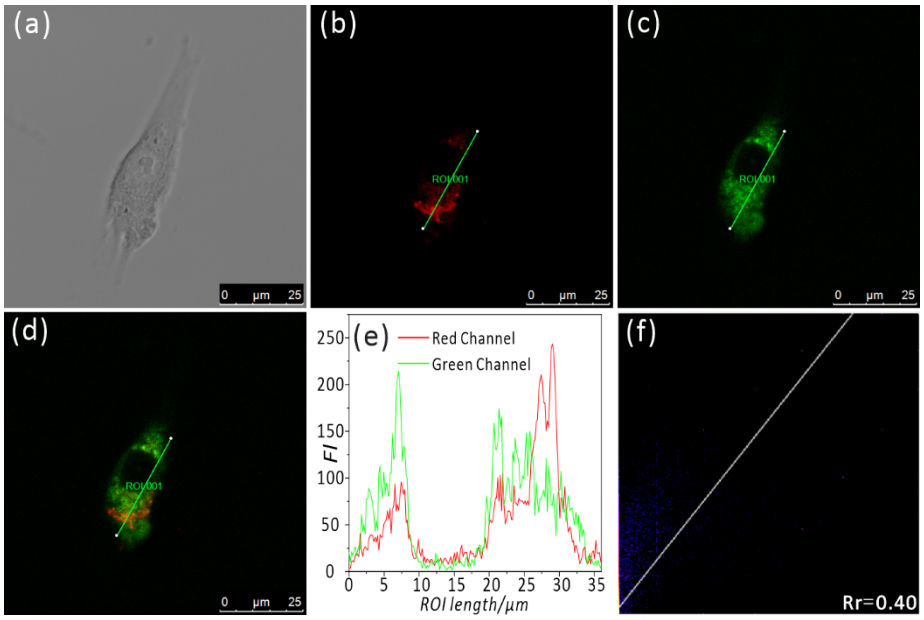

Fig. S6 Fluorescence images of AML cells costaining with probe **1** (3 μM) and Green ER-Tracker (3 μM). (a) Bright-field image; (b) confocal image (red channel) with probe **1**; (c) confocal image (green channel) of Green ER-Tracker; (d) merged image of (b) and (c); (e) fluorescence intensity of the regions of interest (ROI) across the AML cells. (f) fluorescence intensity correlation plot from the red channel and the green channel.

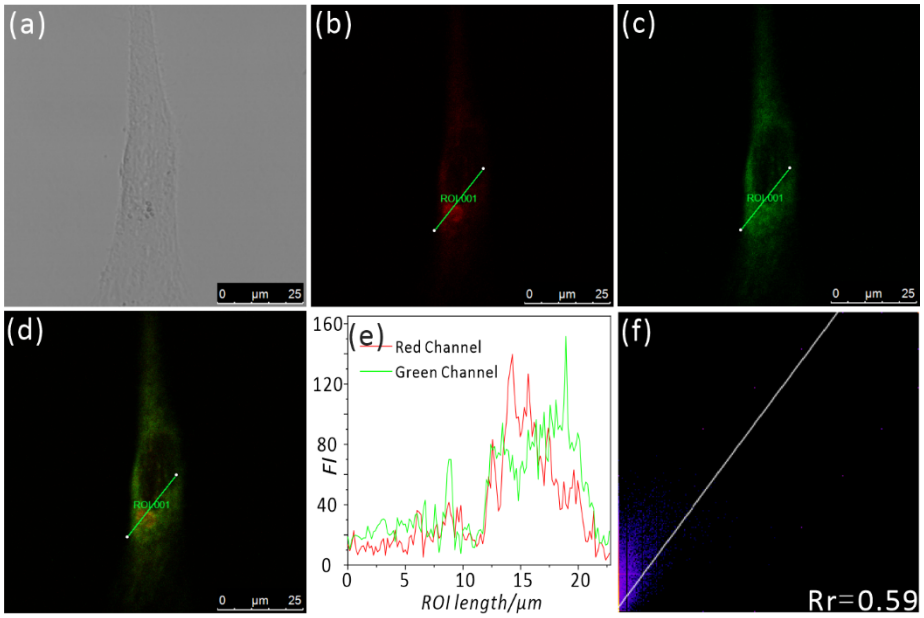

Fig. S7 Fluorescence images of B-2B cells costaining with probe **1** (3 μM) and Green ER-Tracker (3 μM). (a) Bright-field image; (b) confocal image (red channel) with probe **1**; (c) confocal image (green channel) of Green ER-Tracker; (d) merged image of (b) and (c); (e) fluorescence intensity of the regions of interest (ROI) across the B-2B cells. (f) fluorescence intensity correlation plot from the red channel and the green channel.

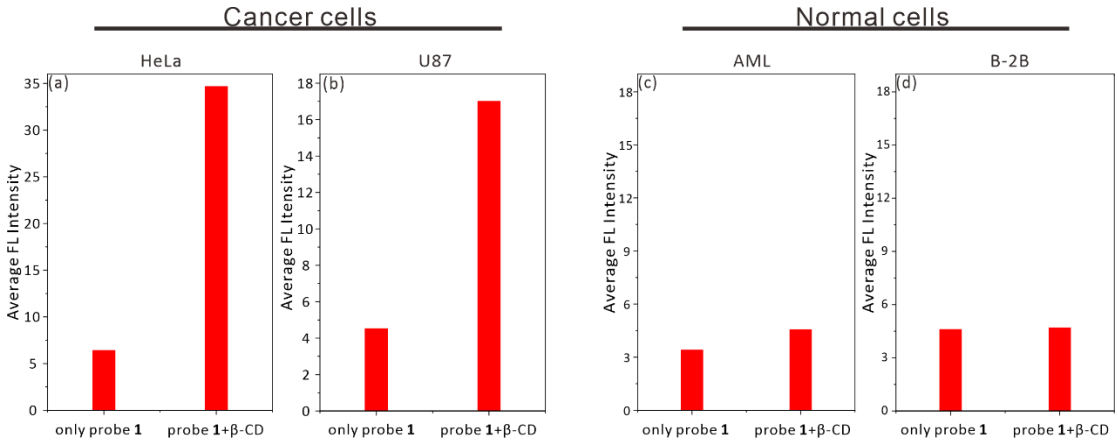

Fig. S8 Average FL Intensity of cancer cells and normal cells incubated with probe **1** before and after adding β-CD (100 μM).

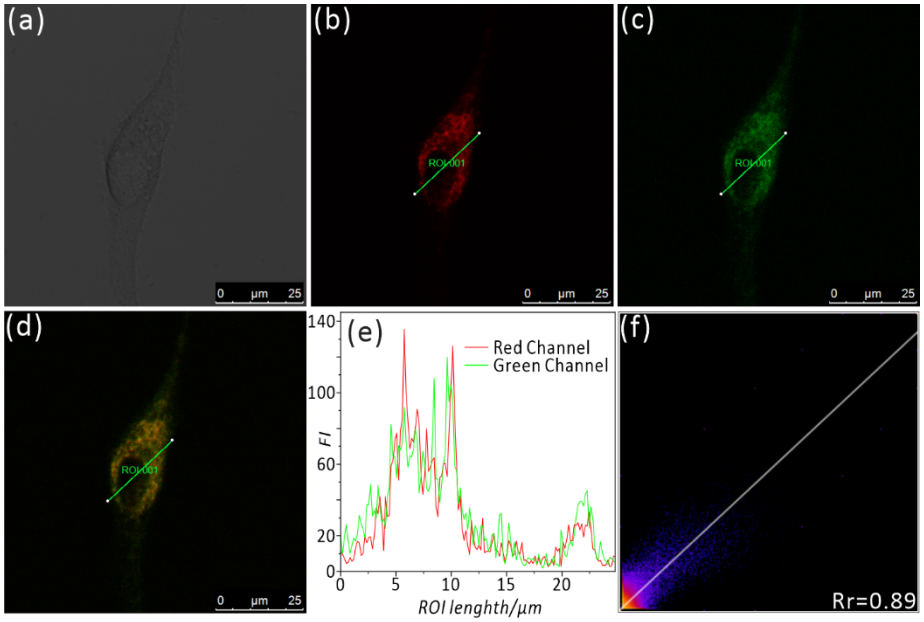

Fig. S9 Fluorescence images of HeLa cells costaining with probe **1** (0.3 μM) and Green ER-Tracker (3 μM). (a) Bright-field image; (b) confocal image (red channel) with probe **1** (0.3 μM) after adding β-CD (100 μM); (c) confocal image (green channel) of Green ER-Tracker; (d) merged image of (b) and (c); (e) fluorescence intensity of the regions of interest (ROI) across the HeLa cells. (f) fluorescence intensity correlation plot from the red channel and the green channel.

2. APPENDIX

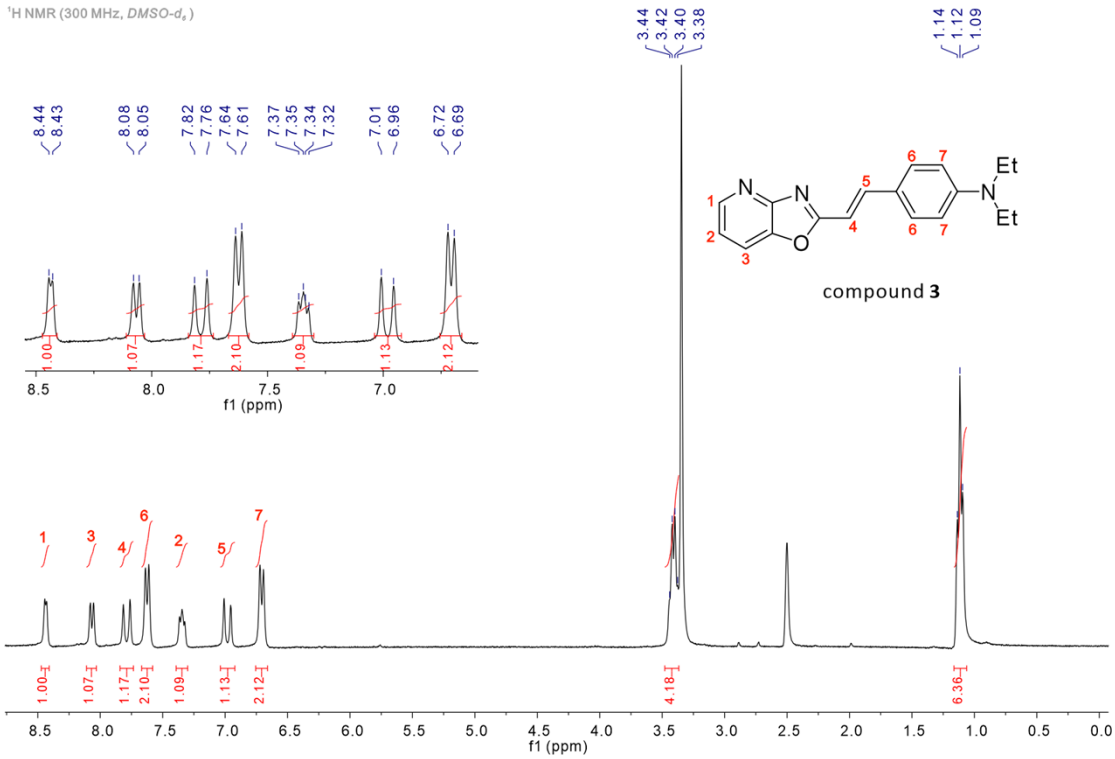

Fig. S10 ^{1}H NMR spectrum of compound **3** (300 MHz, DMSO-d_6).

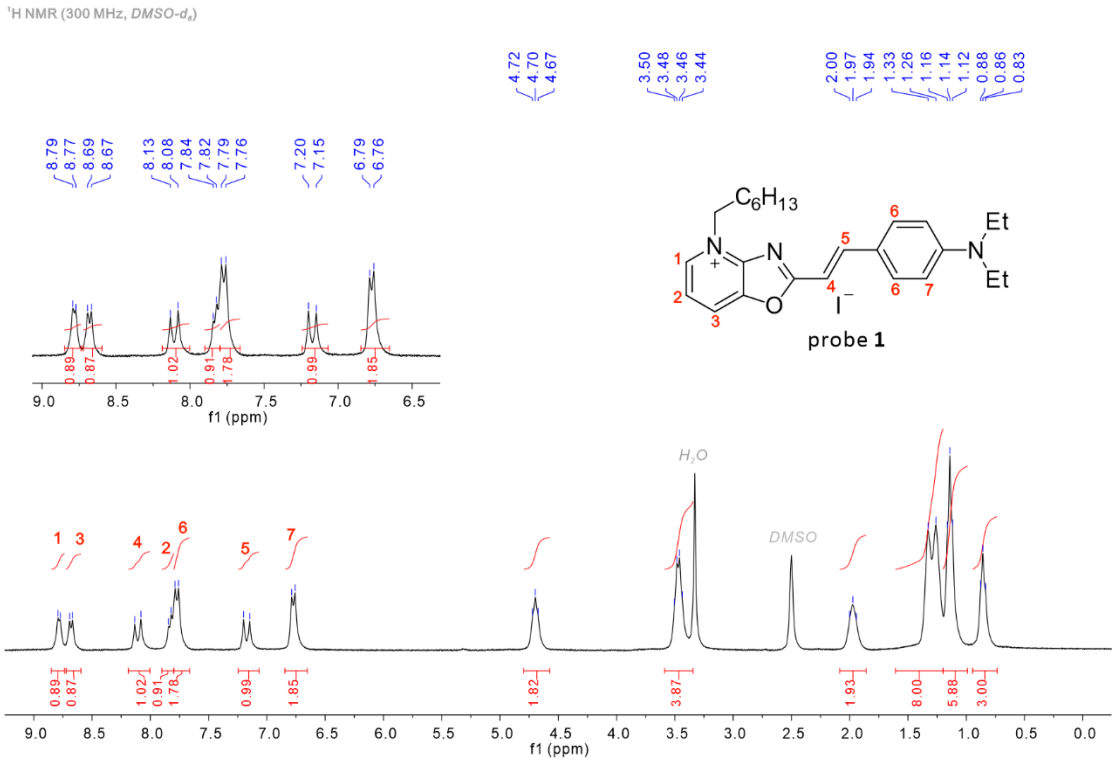

Fig. S11 ^{1}H NMR spectrum of probe **1** (300MHz, DMSO-d_6).

Analysis Info

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Method	2011-lcms-ms_20211202.m	Operator	bruker
Sample Name	HHC-13	Instrument	micrOTOF-Q III 8228888.20487
Comment			

Acquisition Parameter

Source Type	ESI	Ion Polarity	Positive	Set Nebulizer	0.6 Bar
Focus	Active	Set Capillary	4500 V	Set Dry Heater	180 °C
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Scan End	1500 m/z	Set Collision Cell RF	250.0 Vpp	Set Divert Valve	Waste

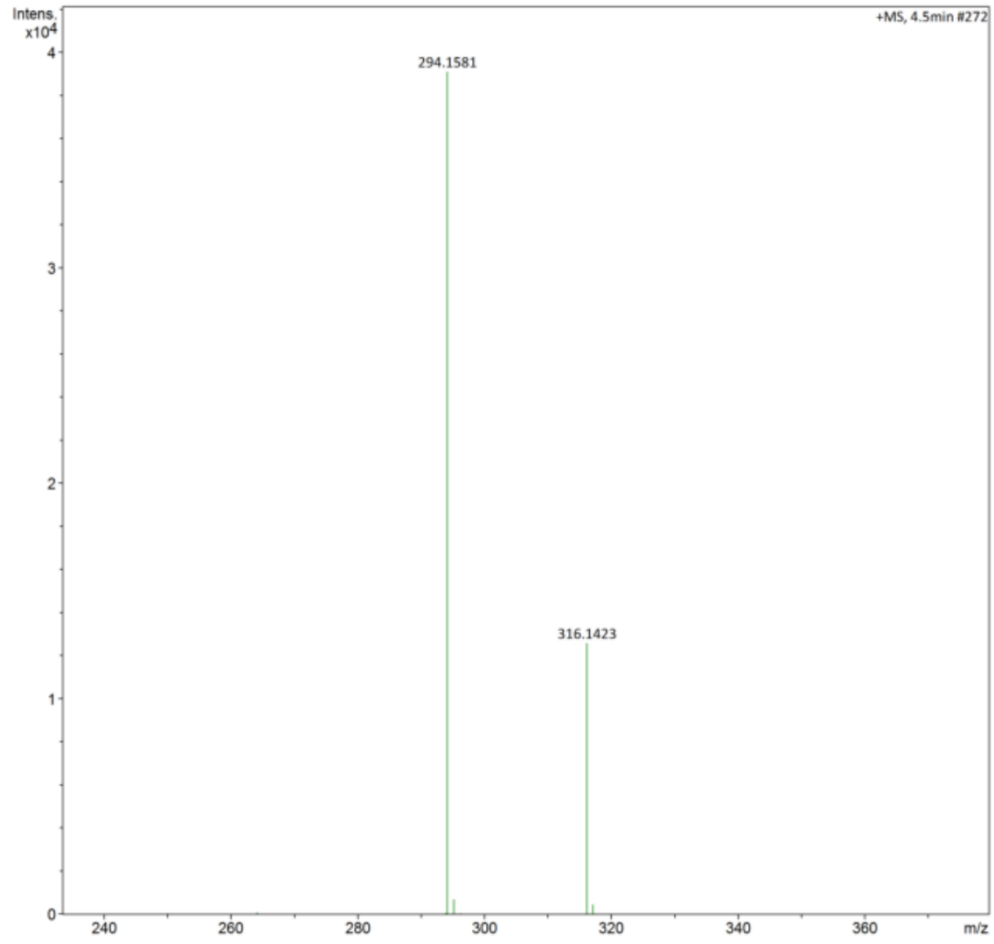

Fig. S12 HRMS (ESI$^+$) spectrum of compound **3**.

Acquisition Parameter					
Source Type	ESI	Ion Polarity	Positive	Set Nebulizer	0.6 Bar
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Scan Begin	50 m/z	Set End Plate Offset	-500 V	Set Dry Gas	4.0 l/min
Scan End	1500 m/z	Set Collision Cell RF	250.0 Vpp	Set Divert Valve	Waste

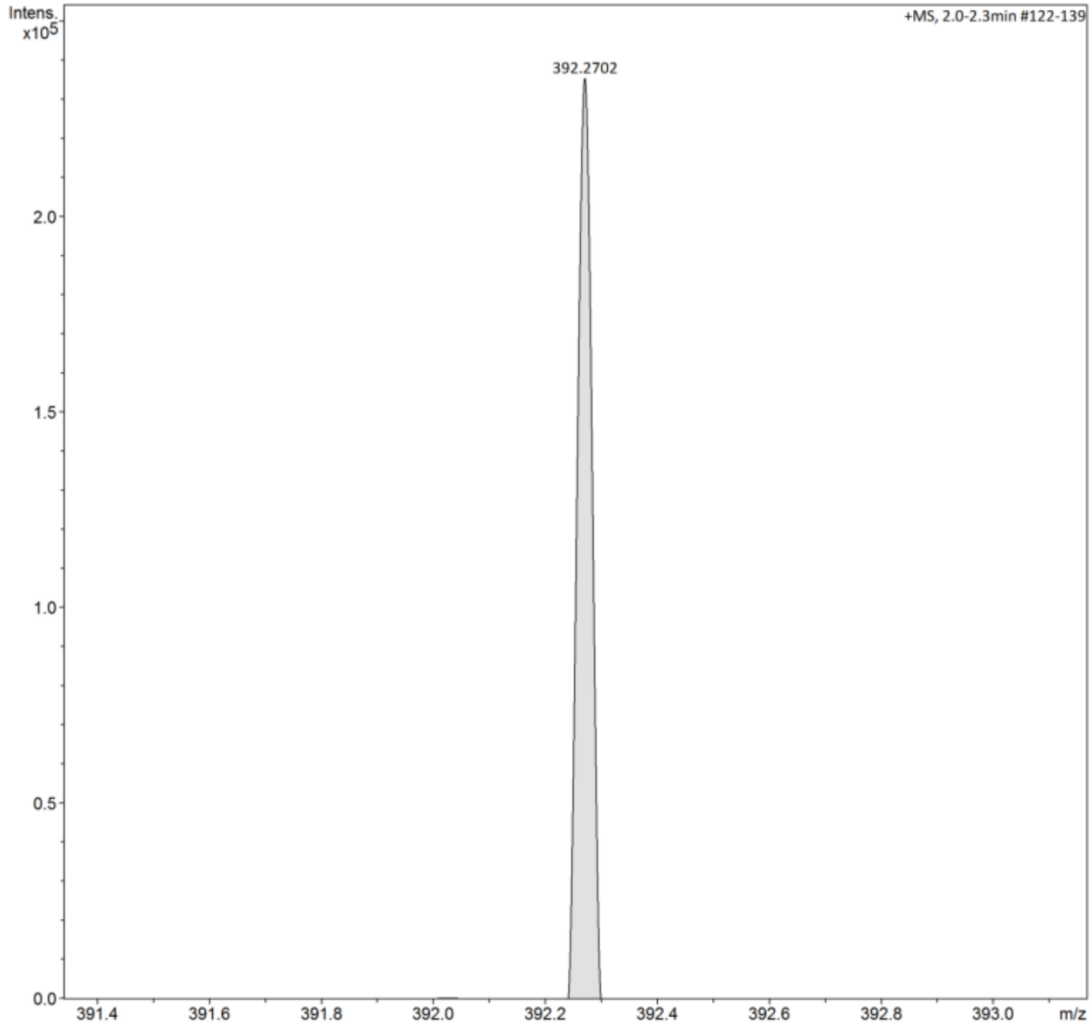

Fig. S13 HRMS (ESI^+) spectrum of probe **1**.

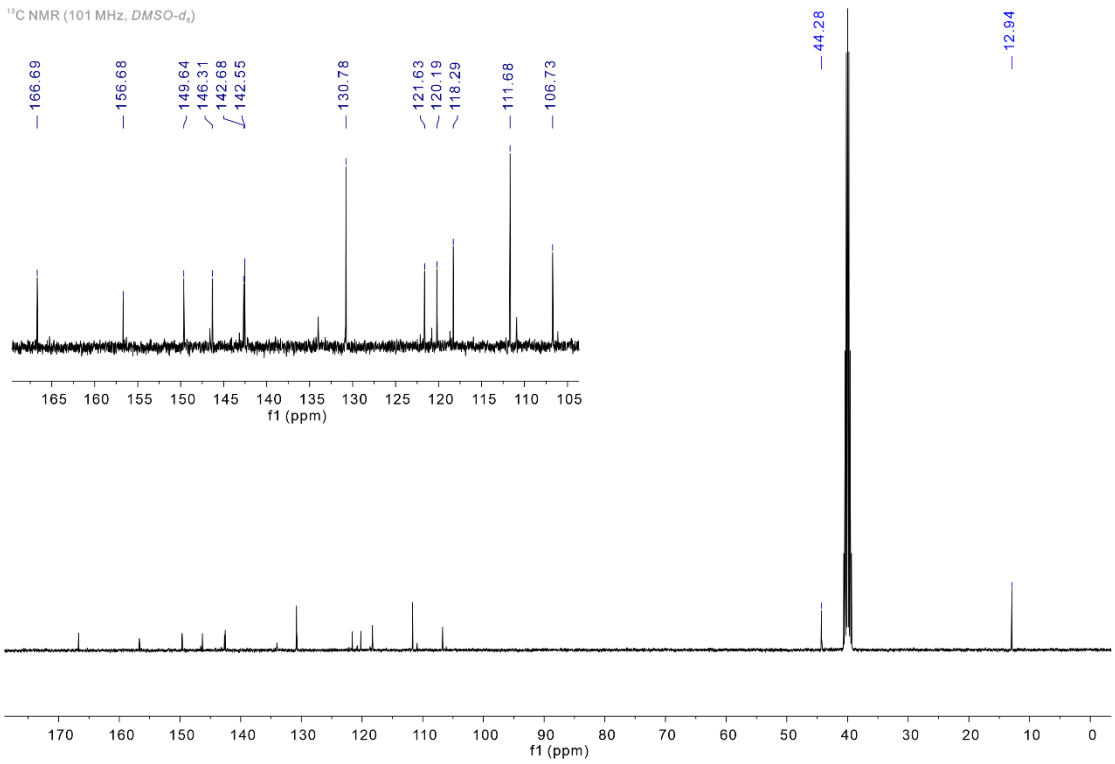

Fig. S14 ^{13}C NMR spectrum of compound **3** (101MHz, DMSO-d_6).

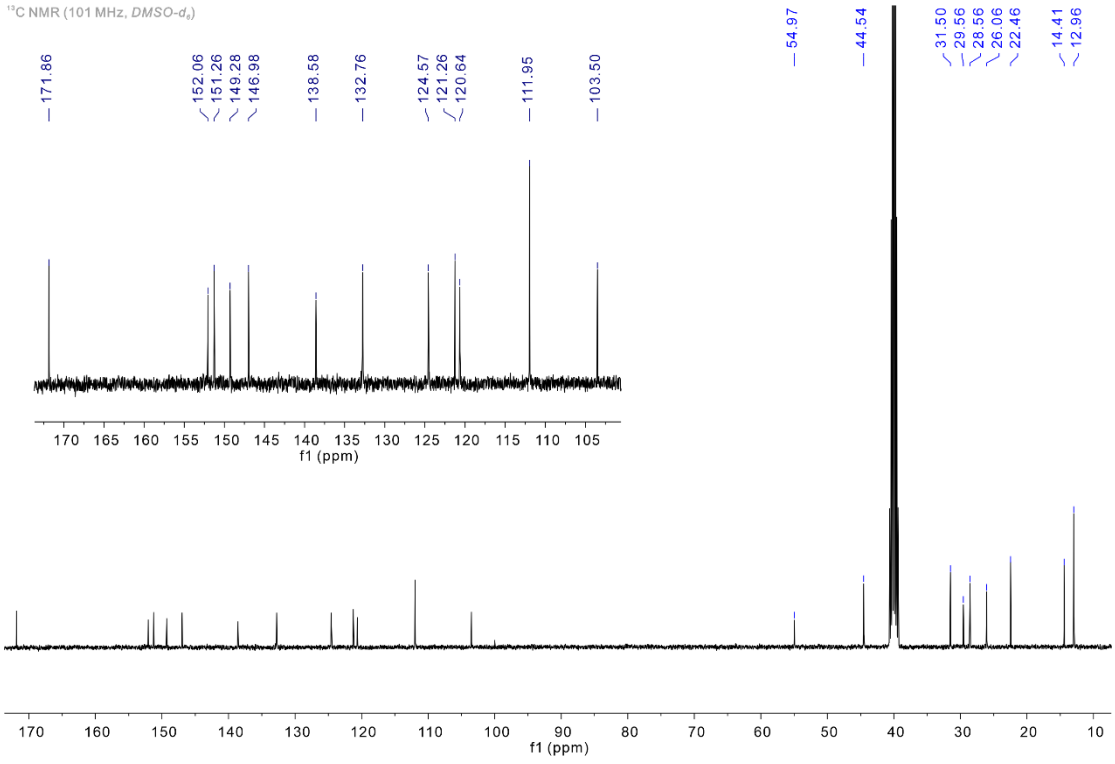

Fig. S15 ^{13}C NMR spectrum of probe **1** (101 MHz, DMSO-d_6).