**SUPPORTING INFORMATION**

*For*

# A fluorescent histone deacetylase (HDAC) inhibitor for cellular imaging

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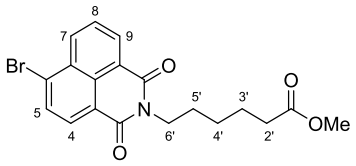
## Experimental

### General

All general reagents and solvents were purchased from commercial sources and used as supplied. Methanolic hydroxylamine solution was freshly prepared before use by stirring hydroxylamine hydrochloride (1.5 equiv) and KOH (1.5 equiv) in MeOH (2 mL) at 21 °C for 10 minutes. Column chromatography was performed using 230–400 Mesh silica gel. All NMR spectra ($^{1}$H and $^{13}$C) were collected on a JEOL Eclipse JNM-Ex 270 MHz, 400 MHz FT-NMR or Bruker Avance 500SB spectrometer as specified. Melting points are uncorrected and were determined using a Bibby Stuart Scientific SMP3 melting point apparatus. High Resolution Mass Spectra (HRMS) analysis were conducted and recorded on an HRMS-ESI-TOF. Those reactions that employed microwave irradiation were conducted using a CEM Discover S-Class Microwave reactor, operating at a frequency of 50/60 Hz and continuous irradiation power from 0 to 200 W. All reactions were conducted in a 35 mL microwave vial sealed with a Teflon® crimp cap.

### Synthesis of 4MS:

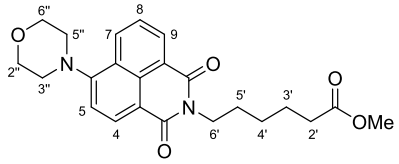
**Methyl 6-(6-bromo-1,3-dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)hexanoate (2)**




In a 35 mL microwave vial, a solution of 4-bromo-1,8-naphthalic anhydride (1.00 g, 3.61 mmol), methyl 6-aminohexanoate hydrochloride[1] (656 mg, 3.61 mmol) and $Et_3N$ (365 mg, 3.61 mmol) in EtOH (5 mL) was heated using microwave irradiation at 100 °C for 45 min. The resulting mixture was transferred into a separatory funnel and diluted with $H_2O$ (30 mL) and extracted with EtOAc (3 × 20 mL). The combined organic layers were washed with 0.1 M HCl (10 mL), sat. $NaHCO_3$ (10 mL) and brine (10 mL), then dried over $MgSO_4$, filtered and the solvent was removed *in vacuo* to afford compound **2** (1.34 g, 92%) as a pale yellow oil that solidified upon standing for two days; mp 90–91

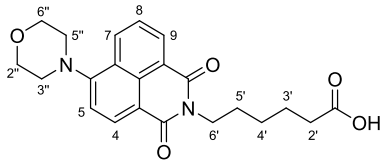
°C (lit.[2] mp 89–90 °C); $^1$H NMR (400 MHz, $CDCl_3$): δ 1.41–1.48 (2H, m, H-4'), 1.65–1.75 (4H, m, H-3', H-5'), 2.32 (2H, t, *J* = 7.7 Hz, H-2'), 3.64 (3H, s, $OCH_3$), 4.13 (2H, t, *J* = 7.7 Hz, H-6'), 7.80 (1H, app. t, $J_{app.}$ = 7.5 Hz, H-8), 7.99 (1H, d, *J* = 7.8 Hz, H-5), 8.35 (1H, d, *J* = 7.8 Hz, H-4), 8.51 (1H, d, *J* = 8.0 Hz, H-7), 8.60 (1H, d, *J* = 7.2 Hz, H-9); $^{13}$C NMR (67.5 MHz, $CDCl_3$): δ 24.7, 26.7, 27.8, 34.0, 40.4, 51.6, 122.3, 123.1, 128.1, 129.0, 130.3, 130.7, 131.1, 131.3, 132.1, 133.3, 163.59, 163.61, 174.1; HRMS (ESI, *m/z*): calculated for $C_{19}H_{18}{}^{79}BrNO_4$ $[M + H]^+$ 404.0492; found 404.0493. Data is consistent with the literature.[2]

**Methyl 6-(6-morpholino-1,3-dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)hexanoate (3)**



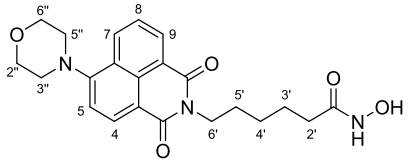

To a solution of methyl 6-(6-bromo-1,3-dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)acrylate **2** (200 mg, 0.49 mmol) dissolved in toluene (5 mL), was added $Pd_2(dba)_3{\cdot}CHCl_3$ (21 mg, 0.02 mmol), Xantphos (12 mg, 0.02 mmol), morpholine (129 mg, 1.48 mmol) and $Cs_2CO_3$ (483 mg, 1.48 mmol). The reaction mixture was stirred for 24 hours at 40 °C. Upon cooling to 21 °C, an appropriate quantity of $SiO_2$ was added, the solvent removed *in vacuo*. The mixture was loaded onto a pre-packed $SiO_2$ column and purified by flash column chromatography (2% MeOH in 1:1 EtOAc/Pet Spirits) to afford compound **3** (182 mg, 90%, $R_f$ = 0.52) as a yellow oil that solidified upon standing over night; mp 97–99 °C (lit.[3] mp 99–101 °C); $^1$H NMR (270 MHz, $CDCl_3$): δ 1.35–1.46 (2H, m, H-4'), 1.60–1.75 (4H, m, H-3', H-5'), 2.28 (2H, t, *J* = 7.3 Hz, H-2'), 3.21 (4H, app. t, $J_{app.}$ = 4.7 Hz, H-3", H-5"), 3.61 (3H, s, $OCH_3$), 3.97 (4H, app. t, $J_{app.}$ = 4.7 Hz, H-2", H-6"), 4.10 (2H, t, *J* = 7.6 Hz, H-6'), 7.17 (1H, d, *J* = 8.1 Hz, H-5), 7.64 (1H, app. t, $J_{app.}$ = 7.9 Hz, H-8), 8.36 (1H, dd, *J* = 7.3, 1.2 Hz, H-7), 8.45 (1H, d, *J* = 8.1 Hz, H-4), 8.51 (1H, dd, *J* = 6.1, 1.2 Hz, H-9); $^{13}$C NMR (67.5 MHz, $CDCl_3$): δ 24.7, 26.7, 27.8, 34.0, 40.1, 51.5, 53.5, 67.0, 115.0, 117.2, 123.3, 125.9. 126.1, 129.9, 130.1, 131.2, 132.5, 155.6, 163.9, 164.4, 174.1; HRMS (ESI, *m*/*z*): calculated for $C_{23}H_{26}N_2O_5$ $[M + H]^+$ 411.1915; found 411.1925; Data is consistent with the literature.[3]

**6-(6-Morpholino-1,3-dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)hexanoic acid (4)**



A solution of methyl 6-(6-morpholino-1,3-dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)hexanoate **3** (160 mg, 0.39 mmol), LiOH·$H_2O$ (163 mg, 3.90 mmol) in THF/$H_2O$ (1:1, 5 mL) was allowed to stir at 21 °C for 24 hours. Solvent was removed *in vacuo* and the crude residue was suspended in $H_2O$ (5 mL) and treated with 2 M HCl until pH 3 was obtained. The aqueous phase was extracted with $CH_2Cl_2$ (3 × 10 mL) and the combined organic layer was washed with brine (5 mL), dried ($MgSO_4$) and filtered. The solvent was removed *in vacuo*, to give a bright yellow oil. Trituration with 1 M HCl (3 mL) afforded compound **4** (140 mg, 91%) as a bright yellow solid; mp 171–173 °C (lit.[3] mp 172–174 °C); $^1$H NMR: (270 MHz, DMSO-$d_6$): δ 1.29–1.37 (2H, m, H-4'), 1.48–1.66 (4H, m, H-3', H-5'), 2.21 (2H, t, *J* = 7.3 Hz, H-2'), 3.19–3.22 (4H, m, H-3", H-5"), 3.89–3.93 (4H, m, H-2", H-6"), 3.99 (2H t, *J* = 6.9 Hz, H-6'), 7.33 (1H, d, *J* = 8.5 Hz, H-5), 7.78 (1H, app. t, $J_{app.}$ = 7.5 Hz, H-8), 8.38 (1H, d, *J* = 8.5 Hz, H-4), 8.42–8.47 (2H, m, H-7, H-9), 11.99 (1H, br s, COO*H*); $^{13}$C NMR (67.5 MHz, DMSO-$d_6$): δ 24.8, 26.6, 27.9, 34.0, 39.8, 53.6, 66.8, 115.6, 116.4, 123.1, 125.8, 126.6, 129.6, 131.0, 131.2, 132.7, 156.0, 163.5, 164.0, 175.0; HRMS (ESI, *m/z*): calculated for $C_{22}H_{24}N_2O_5$ $[M + H]^+$ 397.1758; found 397.1759. Data is consistent with the literature.[3]

***N*-Hydroxy-6-(6-morpholino-1,3-dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)hexanamide (4MS)**

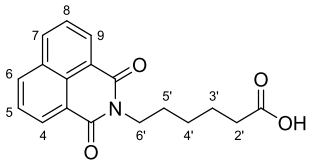


To a cooled (0 °C) mixture of 6-(6-morpholino-1,3-dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)hexanoic acid **4** (100 mg, 0.25 mmol) in THF (3 mL), $Et_3N$ (35 mg, 0.46 mmol) and ethyl chloroformate (31 mg, 0.14 mmol) were successively introduced and stirred for 20 minutes. The

$Et_3NHCl$ precipitate was filtered and the filtrate was directly added to a freshly prepared solution of hydroxylamine (3 mL). After stirring at 21 °C for 10 hours, the solvent was removed *in vacuo*. The crude oily residue was resuspended in EtOAc (5 mL), to which $H_2O$ (10 mL) was added and extracted with EtOAc (3 × 5 mL). The combined organic layer was washed with 1 M HCl (5 mL) and brine (5 mL), dried over $MgSO_4$, filtered and solvent removed to afford compound **4MS** (69 mg, 67%) as a bright yellow oil that solidified upon standing; mp 102–103 °C; $^1$H NMR (270 MHz, DMSO-$d_6$): δ 1.22–1.35 (2H, m, H-4'), 1.48–1.66 (4H, m, H-3', H-5'), 1.94 (2H, t, *J* = 7.3 Hz, H-2'), 3.21 (4H, app. t, $J_{app.}$ = 4.7 Hz, H-3", H-5"), 3.91 (4H, app. t, $J_{app.}$ = 4.7 Hz, H-2", H-6"), 4.00 (2H, t, *J* = 9.5 Hz, H-6'), 7.35 (1H, d, *J* = 8.3 Hz, H-5), 7.80 (1H, app. t, $J_{app.}$ = 7.6 Hz, H-8), 8.40 (1H, d, *J* = 8.3 Hz, H-4), 8.46–8.49 (2H, m, H-7, H-9), 8.66 (1H, s, NHO*H*), 10.32 (1H, s, N*H*OH); $^{13}$C NMR (125 MHz, DMSO-$d_6$): δ 25.4, 26.6, 27.9, 32.6, 39.4, 53.5, 66.7, 115.6, 116.3, 123.1, 125.8, 126.6, 129.6, 131.0, 131.2, 132.7, 155.9, 163.5, 164.0, 169.5; HRMS (ESI, *m/z*): calculated for $C_{22}H_{25}N_3O_5$ $[M + H]^+$ 412.1867; found 412.1884.

**Synthesis of Scriptaid (1)**

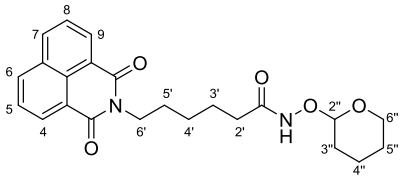
**6-(1,3-Dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)hexanoic acid (S1)**




In a 35 mL microwave vial, a solution of 1,8-naphthalic anhydride (1.00 g, 5.05 mmol) and 6-aminohexanoic acid (662 mg, 5.05 mmol) in EtOH (5 mL) was heated using microwave irradiation at 100 °C for 45 minutes. The solution was then poured into $H_2O$ to precipitate out a solid, which was collected by filtration, washing thoroughly with $H_2O$ and dried to afford compound **S1** (1.30 g, 83%) as a white solid; mp 131–132 °C; $^1$H NMR (270 MHz, $CDCl_3$): δ 1.46–1.55 (2H, m, H-4'), 1.67–1.83 (4H, m, H-3', H-5'), 2.38 (2H, t, *J* = 7.3 Hz, H-2'), 4.19 (2H, t, *J* = 7.3 Hz, H-6'), 7.76 (2H, app. t, $J_{app.}$ = 8.3 Hz, H-5, H-8), 8.22 (2H, d, *J* = 8.6 Hz, H-6, H-7), 8.61 (2H, d, *J* = 7.3 Hz, H-4, H-9); $^{13}$C NMR

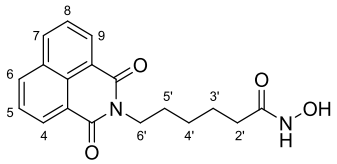
(100 MHz, $CDCl_3$): δ 24.5, 26.7, 27.9, 33.8, 40.3, 122.8, 127.1, 128.3, 131.4, 131.8, 134.1, 164.4, 178.3; $^1$H NMR (400 MHz, DMSO-$d_6$): δ 1.30–1.38 (m, 2H), 1.51–1.58 (m, 2H), 1.59–1.67 (m, 2H), 2.21 (t, *J* = 7.3 Hz, 2H), 4.02 (t, *J* = 7.4 Hz, 2H), 7.86 (dd, *J* = 8.3, 7.3 Hz, 2H), 8.44 (dd, *J* = 8.3, 1.0 Hz, 2H), 8.48 (dd, *J* = 7.3, 1.0 Hz, 2H); $^{13}$C NMR (100 MHz, DMSO-$d_6$): δ 24.2, 26.0, 27.2, 33.5, 39.5, 122.0, 127.2, 127.3, 130.7, 131.3, 134.3, 163.4, 174.4; HRMS (ESI, *m/z*): calculated for $C_{18}H_{17}NO_4$ $[M + H]^+$ 312.1230; found 312.1240.

**6-(1,3-Dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)-*N*-((tetrahydro-2*H*-pyran-2-yl)oxy)hexanamide (S2)**




To a stirring solution of 6-(1,3-dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)hexanoic acid **S1** (300 mg, 0.96 mmol) in $CH_2Cl_2$ (5 mL), was added *O*-(tetrahydro-2*H*-pyran-2-yl)hydroxylamine (136 mg, 1.16 mmol), EDCI·HCl (600 mg, 3.86 mmol), anhydrous HOBt (260 mg, 1.93 mmol) and $Et_3N$ (682 mg, 6.75 mmol). After stirring at 40 °C for 24 hours, the reaction mixture was transferred into a separatory funnel and washed with brine (2 × 10 mL), dried over $MgSO_4$ and concentrated *in vacuo*. Purification by flash column chromatography (10% MeOH in 1:1 EtOAc/Pet. Spirits) afforded compound **S2** (277 mg, 70%, $R_f$ = 0.33) as a white solid; mp 137–139 °C; $^1$H NMR (270 MHz, DMSO-$d_6$): δ 1.25–1.36 (2H, m, H-4'), 1.44–1.67 (10H, m, H-3', H-5', H-3", H-4", H-5"), 1.99 (2H, t, *J* = 7.2 Hz, H-2'), 3.42 (1H, br s, H-6"), 3.82–3.91 (1H, m, H-6"), 4.01 (2H, t, *J* = 7.2 Hz, H-6'), 4.73 (1H, br s, H-2"), 7.84 (2H, dd, *J* = 8.2, 7.4 Hz, H-5, H-8), 8.45 (4H, app. t, $J_{app.}$ = 7.5 Hz, H-4, H-6, H-7, H-9), 10.89 (1H, s, COO*H*); $^{13}$C NMR (100 MHz, DMSO-$d_6$): δ 18.3, 24.6, 24.7, 26.0, 27.3, 27.8, 32.0, 40.1, 61.2, 100.8, 122.1, 127.2, 127.4, 130.7, 131.3, 134.3, 163.4, 169.0; HRMS (ESI, *m/z*): calculated for $C_{23}H_{26}N_2O_5$ $[M + H]^+$ 411.1915; found 411.1924.

**6-(1,3-Dioxo-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)-*N*-hydroxyhexanamide (1)**




To a solution of 6-(1,3-dioxo-2,3-dihydro-1*H*-benzo[*de*]isoquinolin-2(3*H*)-yl)-*N*-tetrahydro-2*H*-pyran-2-yloxy)hexanamide **S2** (40 mg, 0.097 mmol) in 2-propanol (3 mL) was added TsOH·$H_2O$ (6 mg, 0.03 mmol). The reaction mixture was stirred at 21 °C for 16 hours, during which, a white precipitate formed in solution. The precipitate was isolated by vacuum filtration to give a white solid. Purification by recrystallisation (MeOH/$H_2O$) afforded compound **1** (18 mg, 57%) as a white solid; mp 153–155 °C; $^1$H NMR (270 MHz, DMSO-$d_6$): δ 1.23–1.36 (2H, m, H-4'), 1.48–1.68 (4H, m, H-3', H-5'), 1.95 (2H, t, $J$ = 7.2 Hz, H-2'), 4.03 (2H, t, $J$ = 7.3 Hz, H-6'), 7.87 (2H, app. t, $J_{app.}$ = 7.5 Hz, H-5, H-8), 8.48 (4H, app. t, $J_{app.}$ = 9.0 Hz, H-4, H-6, H-7, H-9), 8.66 (1H, s, NHO*H*), 10.33 (1H, s, N*H*OH); $^{13}$C NMR (125 MHz, DMSO-$d_6$): δ 24.9, 26.2, 27.4, 32.2, 39.7, 122.1, 127.3, 127.4, 130.8, 131.4, 134.4, 163.4, 169.0; HRMS (ESI, *m*/*z*): calculated for $C_{18}H_{18}N_2O_4$ $[M + H]^+$ 327.1339; found 327.1365.

## NMR Spectra

**Figure S1.** $^{1}H$ NMR of Compound **2** in $CDCl_3$

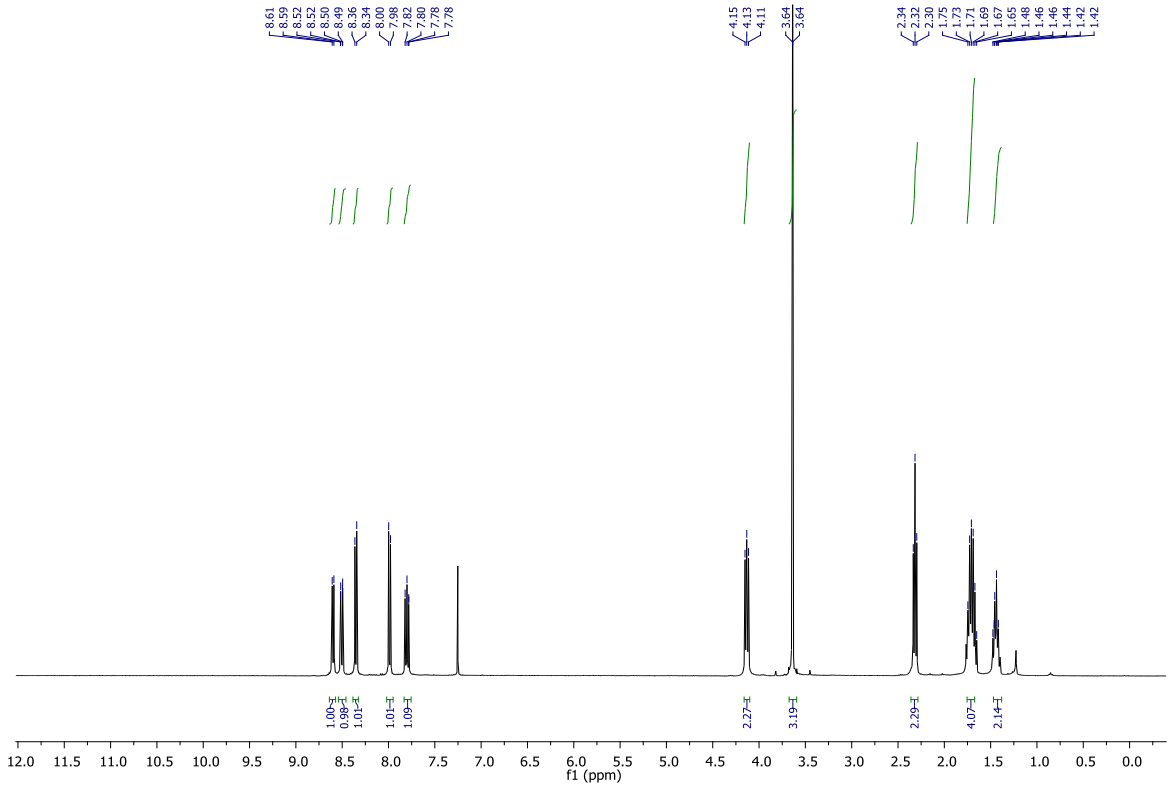



**Figure S2.** $^{1}H$ NMR of Compound **3** in $CDCl_3$

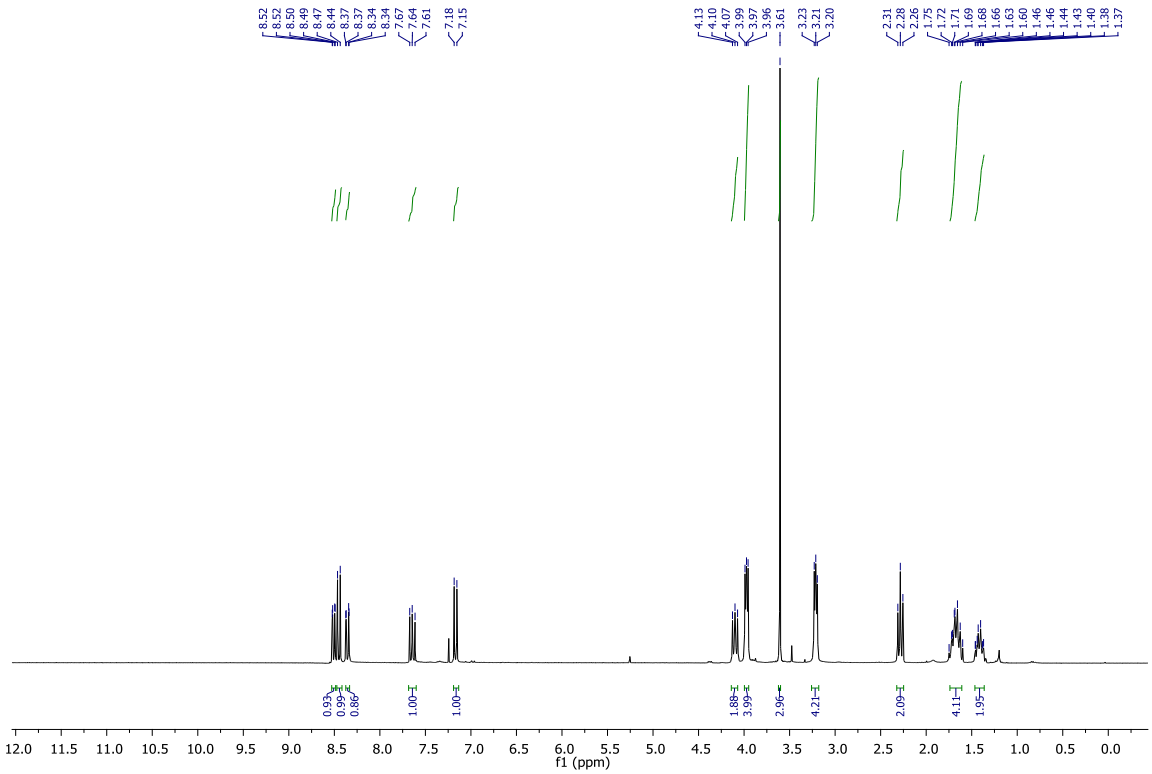


**Figure S3.** $^{1}$H NMR of Compound **4** in DMSO-$d_6$

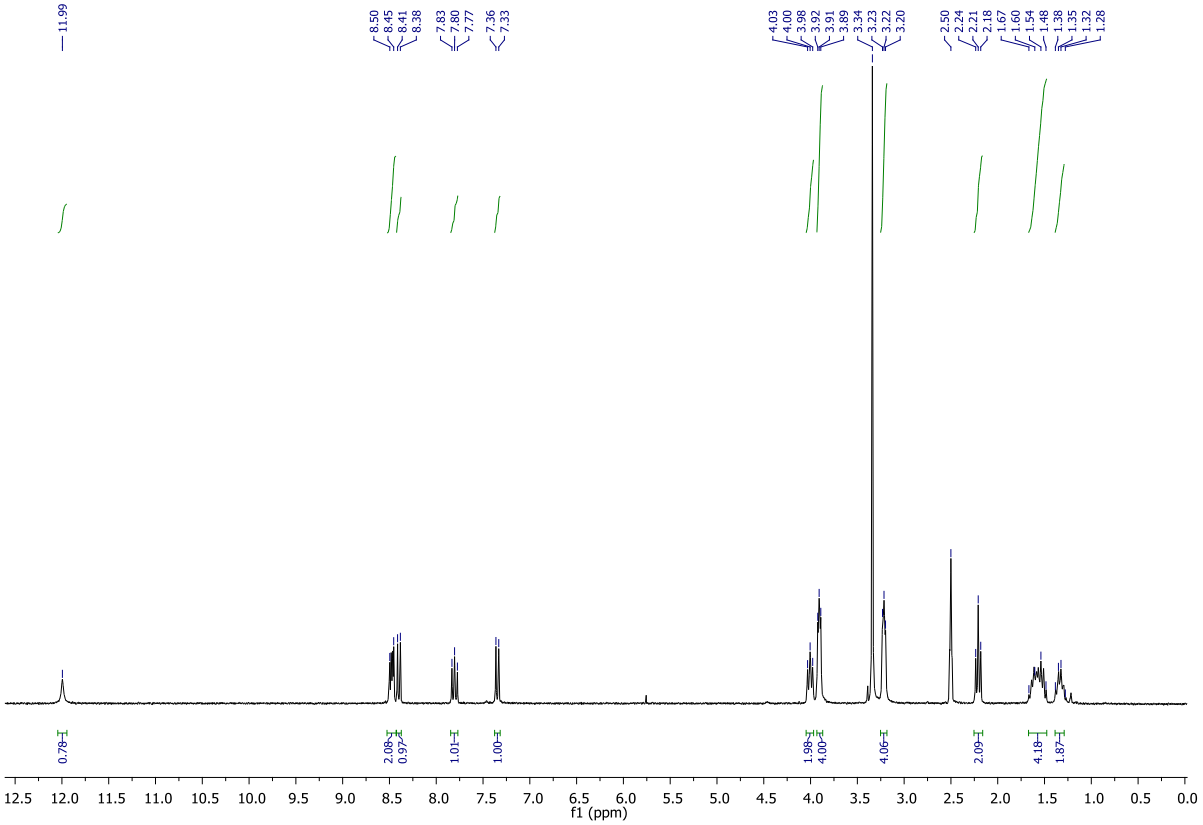



**Figure S4.** $^{1}$H NMR of Compound **4MS** in DMSO-$d_6$

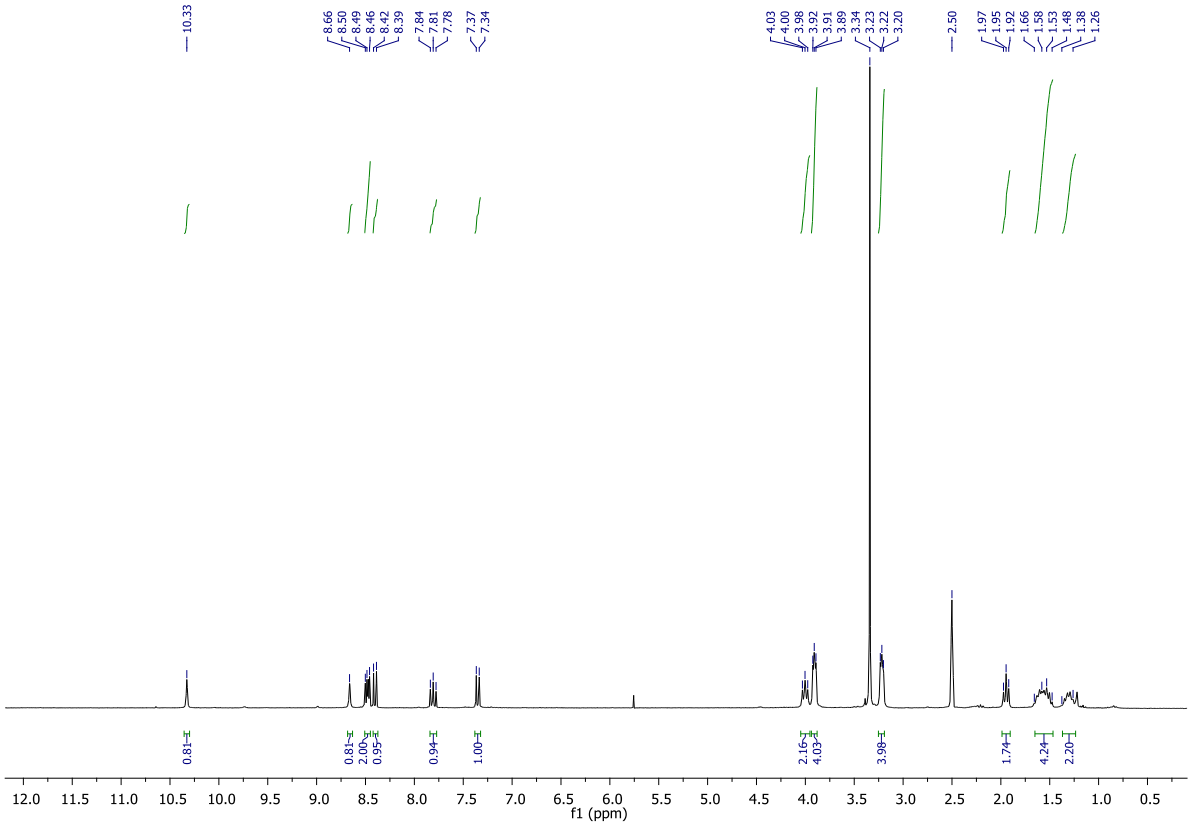


**Figure S5.** $^{13}$C NMR of Compound **4MS** in DMSO-$d_6$

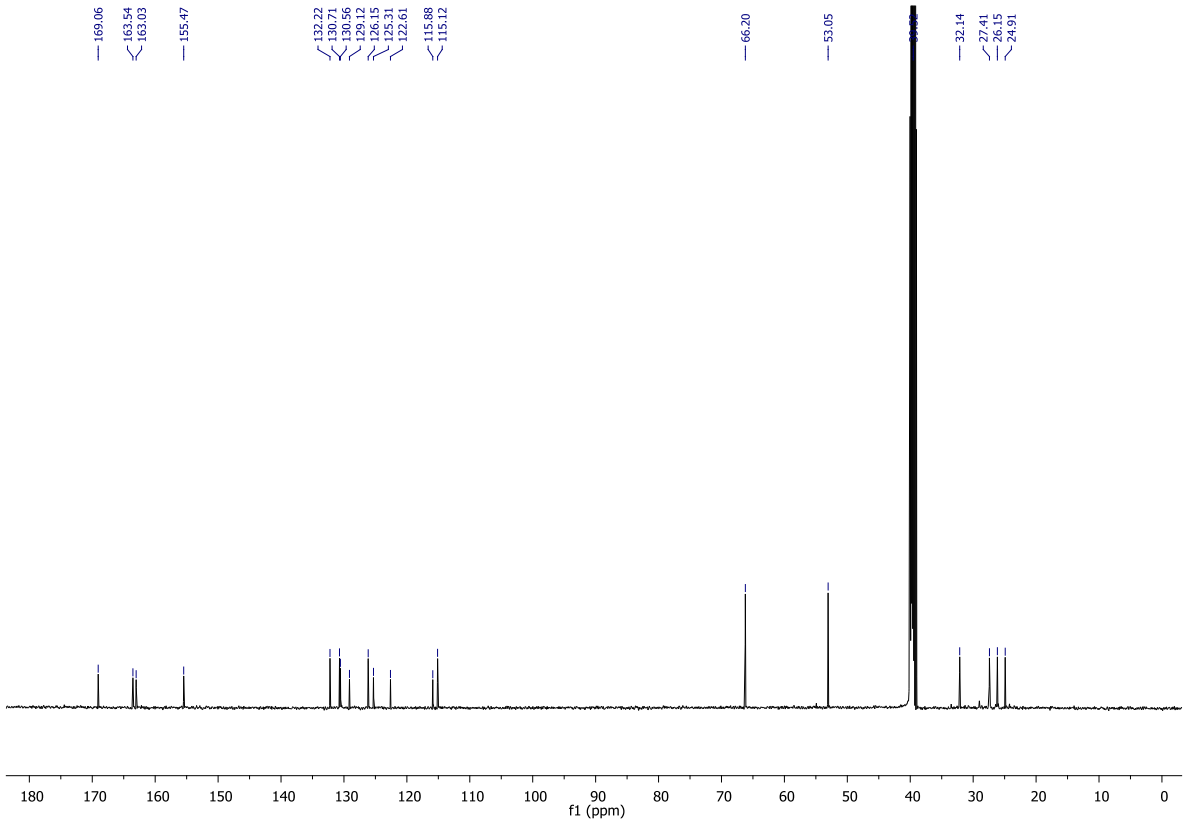



**Figure S6.** HSQC of Compound **4MS** in DMSO-$d_6$

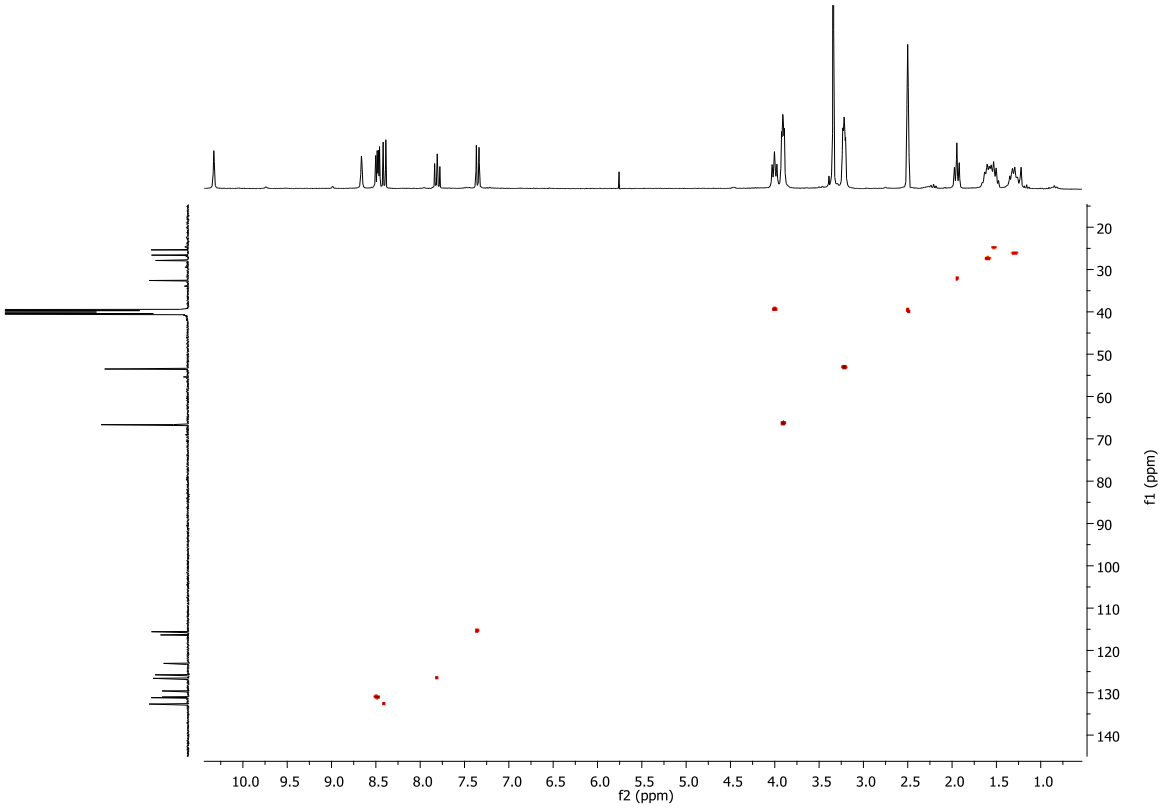


**Figure S7.** $^{1}H$ NMR of Compound **S1** in $CDCl_3$

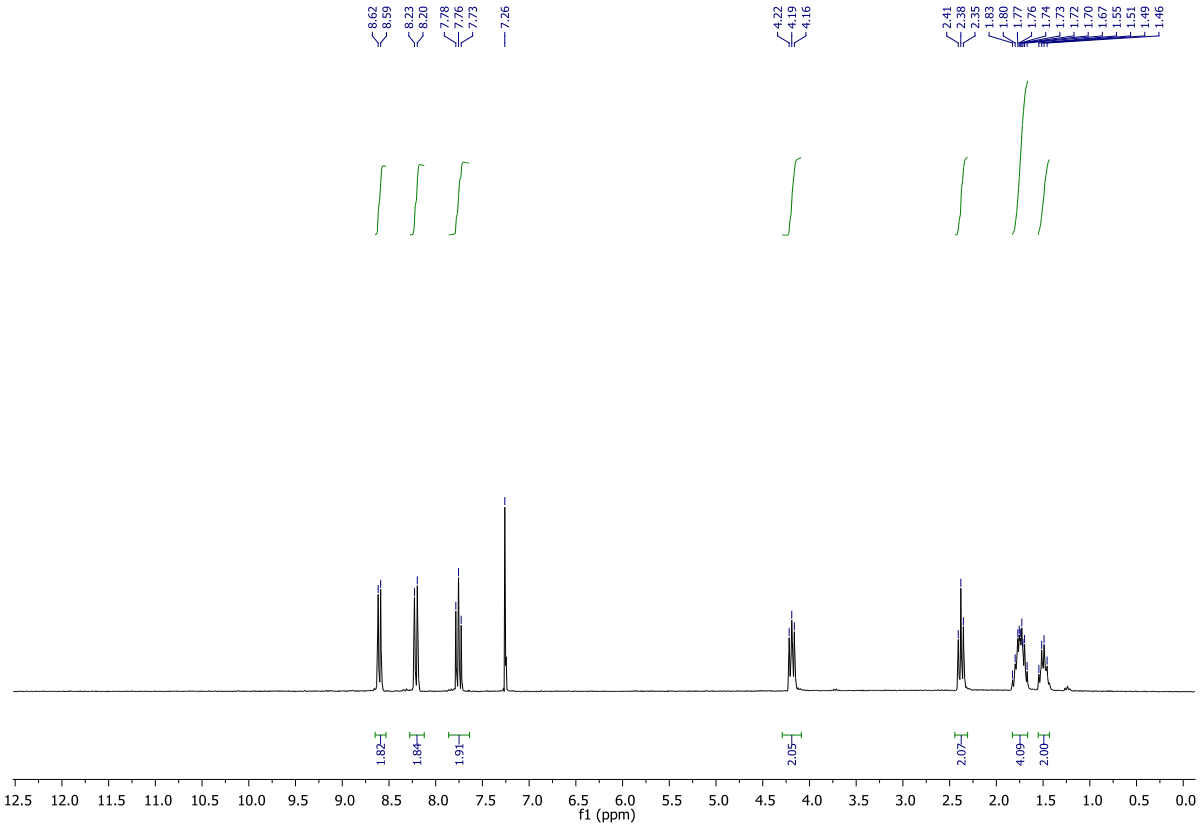



**Figure S8.** $^{13}C$ NMR of Compound **S1** in $CDCl_3$

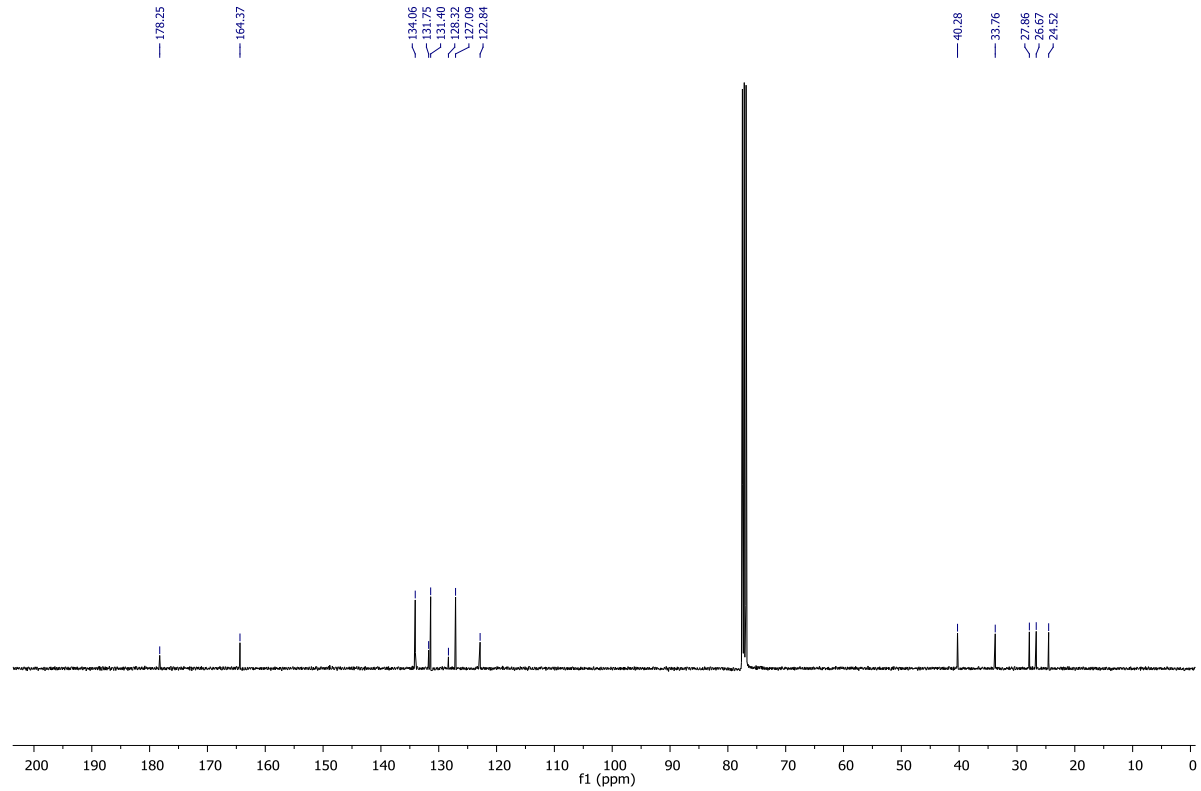


**Figure S9.** $^{1}$H NMR of Compound **S2** in DMSO-$d_6$

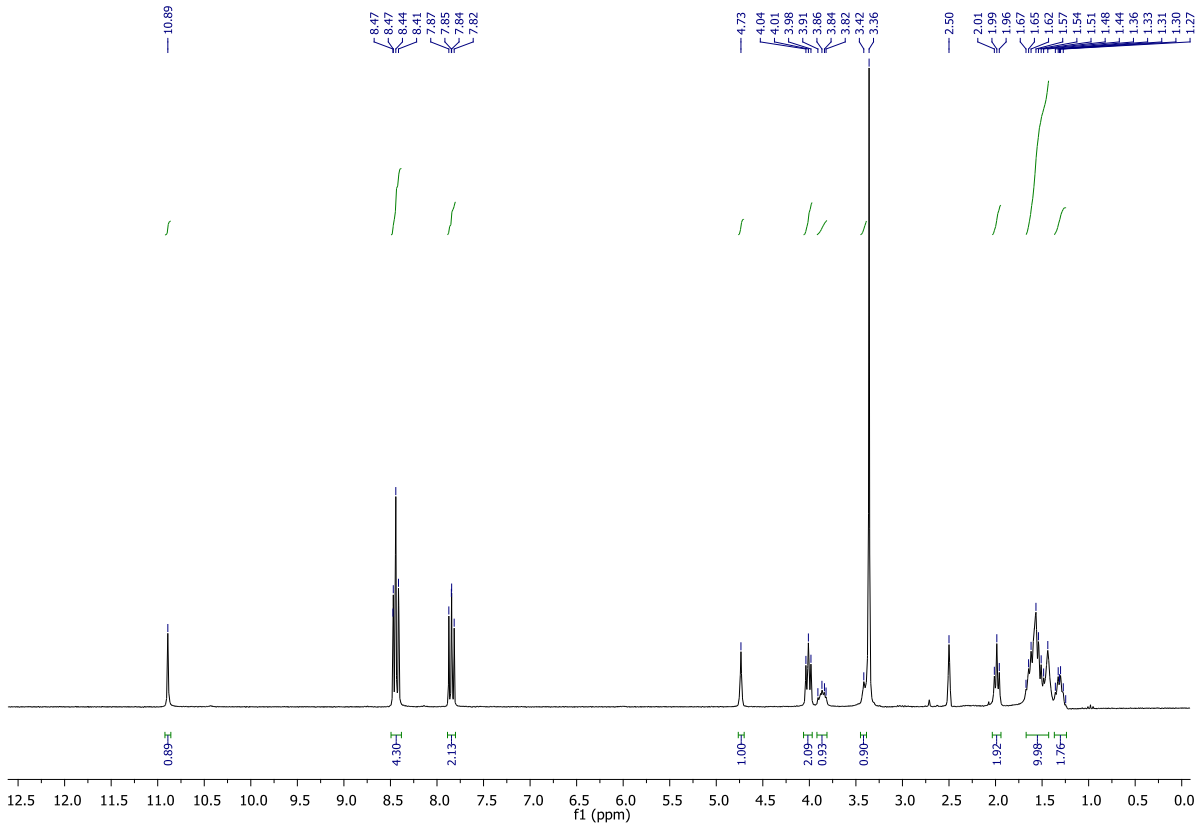



**Figure S10.** $^{13}$C NMR of Compound **S2** in DMSO-$d_6$

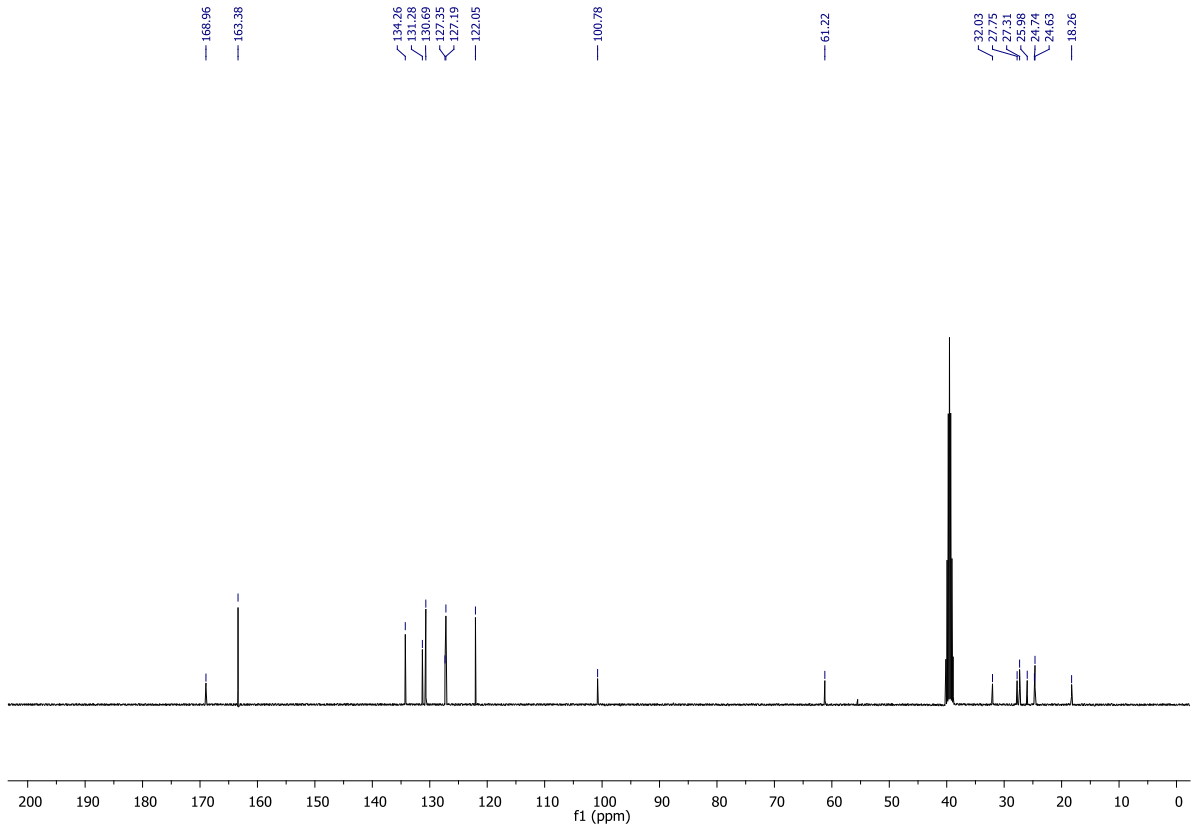


**Figure S11.** $^{1}$H NMR of Compound **1** in DMSO-$d_6$

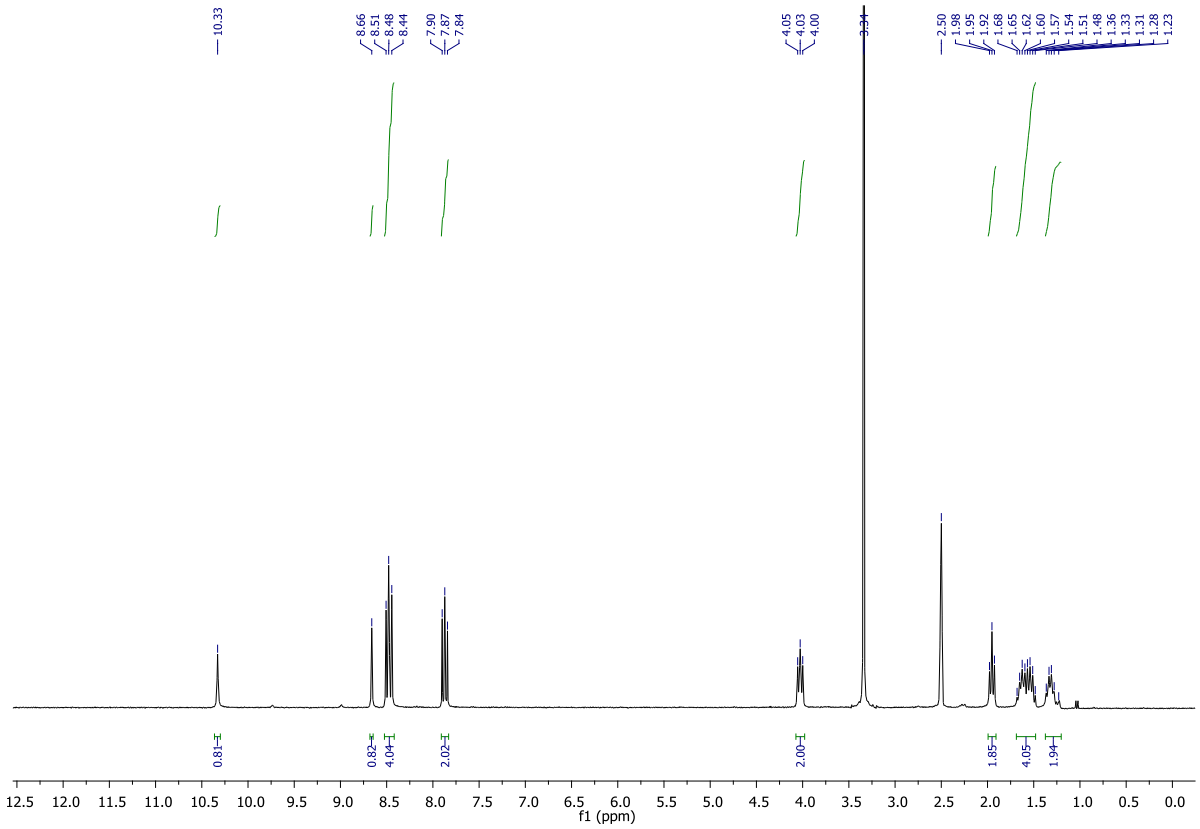
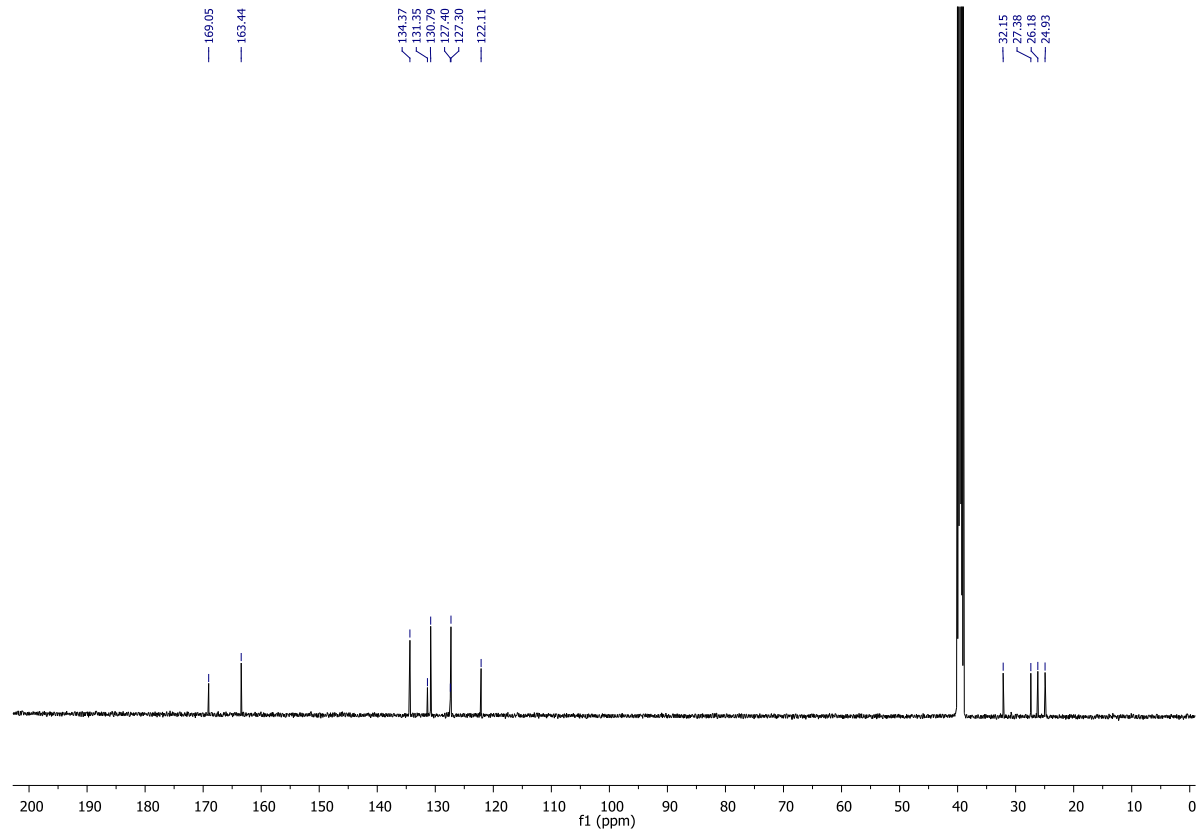
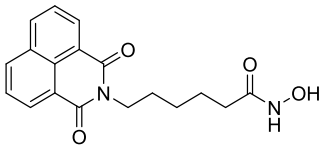


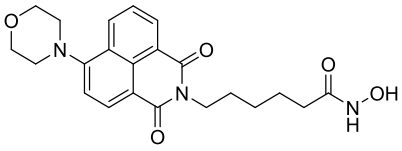

**Figure S12.** $^{13}$C NMR of Compound **1** in DMSO-$d_6$



**Calculated PK properties**



Scriptaid (**1**)
cLogP: 1.987
PSA: 88.402



**4MS**
cLogP: 1.676
PSA: 100.874

**Figure S13.** cLogP and PSA of Scriptaid (**1**) and **4MS**. Values were calculated using molinspirations software (www.molinspirations.com).

**Biological Evaluation**

**$IC_{50}$ Determination:** HDAC inhibition and $IC_{50}$ values against recombinant HDACs 1, 3, 6, 8 and 11 for compound **4MS** and control HDAC inhibitor Scriptaid (**1**) were determined using a HDAC fluorimetric assay, and were performed by Reaction Biology Corporation.

**Proliferation Experiments:** Exponentially-growing KASUMI-1 cells maintained in RPMI-1640 + 10% fetal bovine serum were harvested on the day of each experiment and plated at 5000 cells per well of a 96 well plate in a volume of 100 µL of media. The day after plating, compounds were added to the plate in a volume of 0.5 µL DMSO and then incubated at 37 °C, 5% $CO_2$ for 72 hours. Cell viability was determined with the addition of a resazurin-based reagent (20 µL/well) followed by 2 hours incubation (37 °C, 5% $CO_2$) and fluorescence was determined using a Polarstar Optima instrument (BMG Labtech, NC, USA) (579Ex/584Em). $IC_{50}$ values were determined from the mean of three experiments conducted in duplicate using Prism 6 for Mac (Graphpad, CA, USA).

**Photophysical Evaluation**

UV-visible absorption spectra were collected using a Cary 300 Bio UV-Vis Spectrophotometer and the wavelength range was 200–650 nm with a scan rate of 600 nm $min^{-1}$. Emission spectra were collected with a Cary Eclipse Spectrofluorimeter and are uncorrected. All samples were placed in a 1 cm quartz cuvette either for UV or fluorescence measurements. Absolute quantum yields were collected using a 150 mm QuantaPhi intergrating sphere and the Symphony II $LN_2$ cooled CCD detector. Quantum yields were calculated using the supplied Fluorescence (Horiba JY) software and are the average of three replicates.

For all DNA related work, autoclaved Milli-Q water was used. To prepare the phosphate buffer, two 1 M stock solutions of $K_2HPO_4$ and $KH_2PO_4$ were made up using Milli-Q water in 10 mL volumetric flasks. These stock solutions were then diluted together to achieve a 10 mM phosphate buffer of pH 7.4. The final phosphate buffer solution was then autoclaved. The calf thymus (*ct*)-DNA was purchased from Sigma Aldrich as their sodium salts and were used without further purification. The concentration of *ct*-DNA in 10 mM phosphate buffer solution (pH 7.4) was determined spectrophotometrically using the molar extinction coefficient, $\varepsilon_{260}$ = 6,600 $M^{-1}$ $cm^{-1}$.

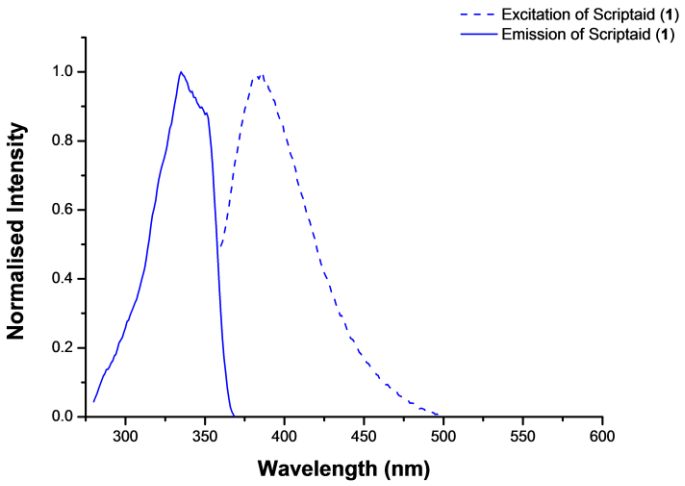



**Figure S14.** Normalised absorption and emission spectra of Scriptaid (**1**) in DMSO (10 µM). $\lambda_{ex}$ = 336 nm; $\lambda_{em}$ = 386 nm; Stokes shift = 50 nm; $\phi_F$ < 0.01.

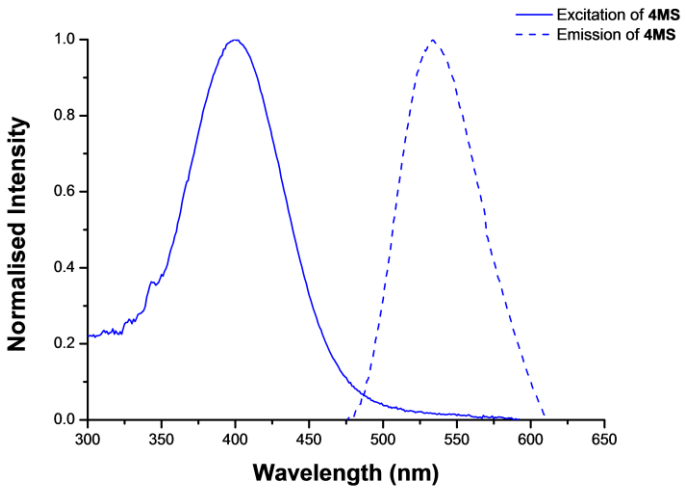



**Figure S15.** Normalised absorption and emission spectra of compound **4MS** in DMSO (1 µM).

$\lambda_{ex}$ = 399 nm; $\lambda_{em}$ = 534 nm; Stokes shift = 135 nm; $\phi_F$ 0.03.

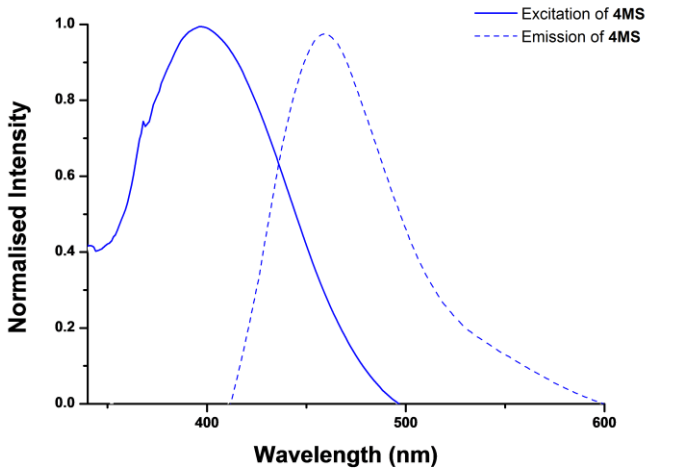



**Figure S16.** Normalised absorption and emission spectra of compound **4MS** in 10 mM phosphate buffer of pH 7.4 (4 µM).

$\lambda_{ex}$ = 396 nm; $\lambda_{em}$ = 460 nm; Stokes shift = 64 nm

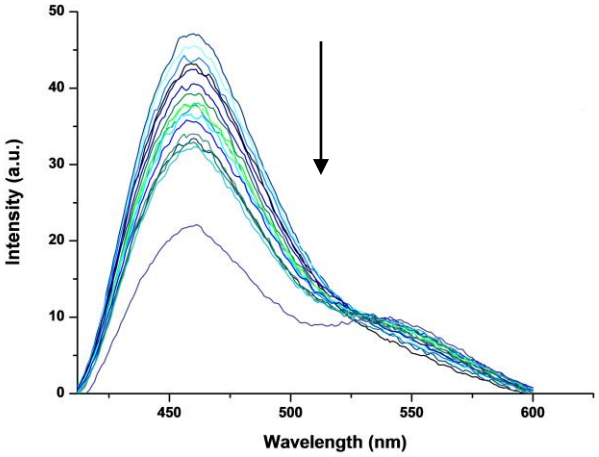



**Figure S17.** Changes in the fluorescence emission spectra of **4MS** (4 μM) in the presence of *ct*-DNA (0–487 μM) in 10 mM phosphate buffer (pH 7.4).

## Confocal Imaging

**Cell Culture:** The highly metastatic variant MDA-MB-231/HM cell line (described throughout as MDA-MB-231, ACCC, Manassas, VA. USA) were cultured in DMEM (Life Technologies) supplemented with 10% FBS. Cells were maintained at 37 °C, in a humidified environment with 5% $CO_2$.

**Confocal Imaging:** MDA-MB-231 cells were plated into Idbi 8 well µ-slides (Ibidi) and incubated for 24 hours. Media was exchanged and a range of concentrations of compound **4MS** (1 µM, 0.3 µM, 0.1 µM and 0.025 µM) was added. All dilutions were made in PBS and PBS was used as the 0 µM control. Propidium iodide (PI, 1 µg $mL^{-1}$, Sigma) was added to monitor cell death.

Cells were imaged at 0, 24, and 48 hours using a Leica SP8 LSM confocal fitted with a 63 × PL Apo CS2 oil immersion objective running LAS AF Version 3.2 (Leica, Germany). Excitation for compound **4MS** was from a 405 nm laser with emission of 480–550 nm. Excitation for PI was from a 561 nm laser with emission of 570–620 nm. Z stacks of 0.5 µm apart were captured to image the whole cell. For visualisation the optimal slice was used.

## References:


1. F. Gigante, M. Kaiser, R. Brun and I. H. Gilbert, *Bioorg. Med. Chem.*, 2009, **17**, 5950.

2. X. Cao, Y. Wu, K. Liu, X. Yu, B. Wu, H. Wu, Z. Gong and T. Yi, *J. Mater. Chem.*, 2012, **22**, 2650.

3. J. Wu, T. Yi, T. Shu, M. Yu, Z. Zhou, M. Xu, Y. Zhou, H. Zhang, J. Han, F. Li and C. Huang, *Angew. Chem. Int. Ed.*, 2008, **47**, 1063.