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Selective fluorescence sensing of salicylic acid using a simple pyrene appended imidazole receptor

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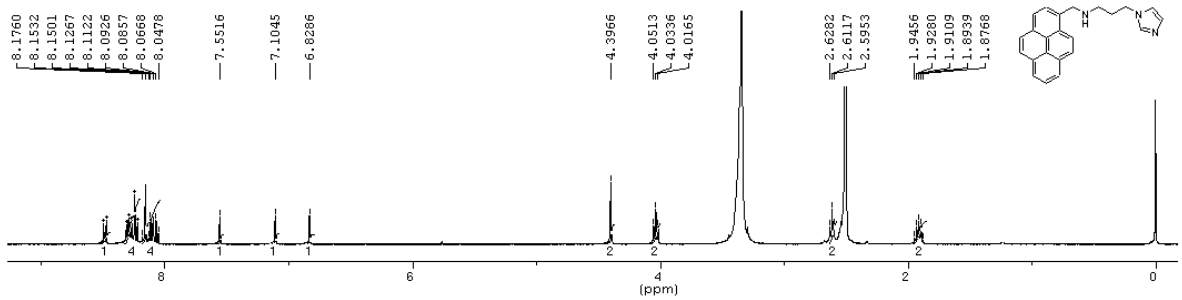

Fig. S1. ^{1}H NMR of Py-AIM (**1**) in DMSO-d_6.

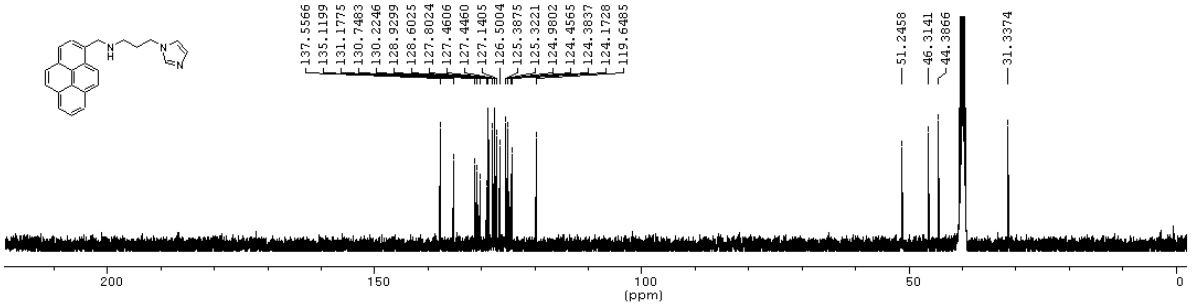

Fig. S2 ^{13}C NMR of Py-AIM (**1**) in DMSO-d_6.

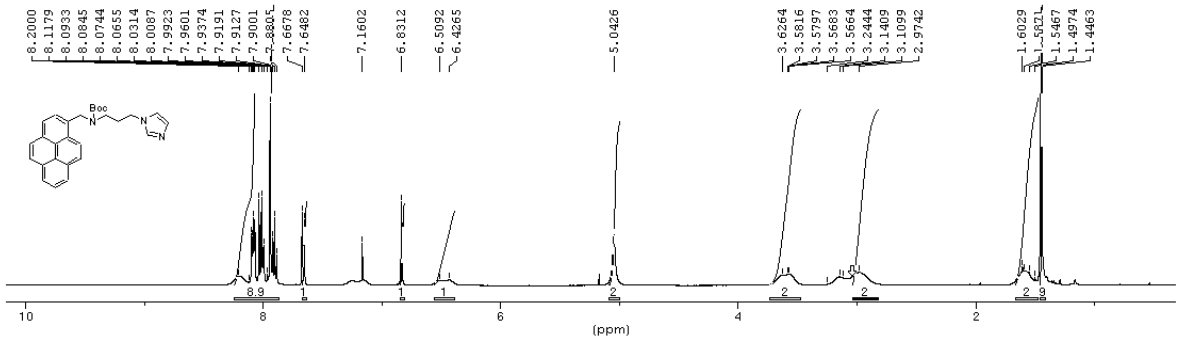

Fig. S3 ^{1}H NMR of Py-BIM-Boc (**2**) in $CDCl_3$.

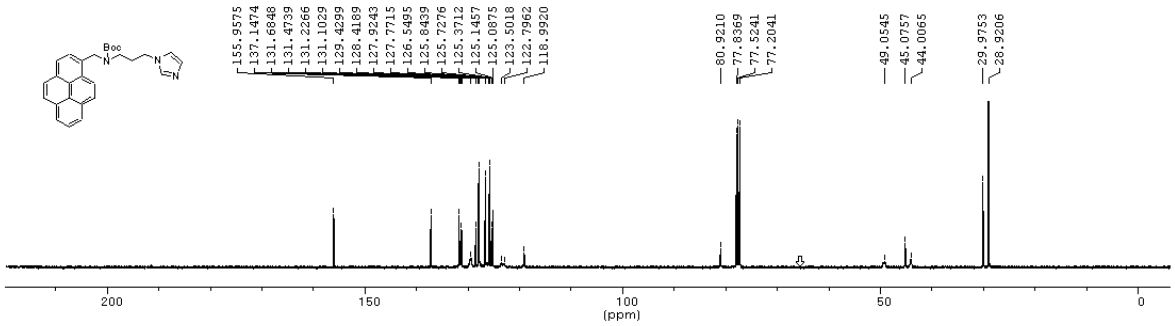

Fig. S4 ^{13}C NMR of Py-BIM-Boc (**2**) in $CDCl_3$.

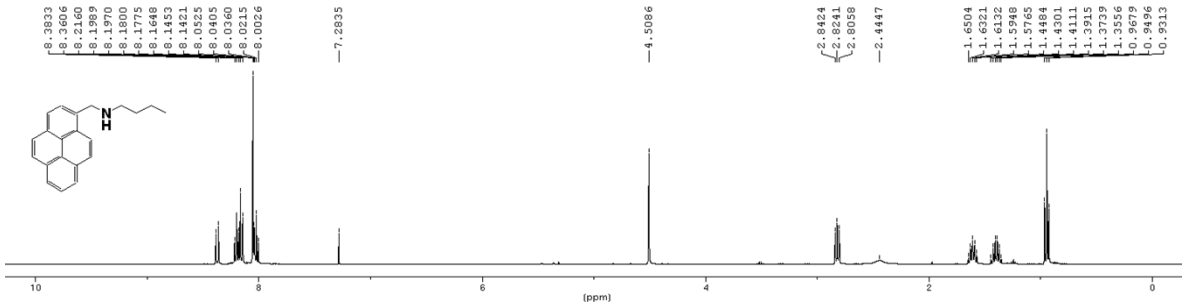

Fig. S5 ^{1}H NMR of Py-ABu (**3**) in DMSO-d_6.

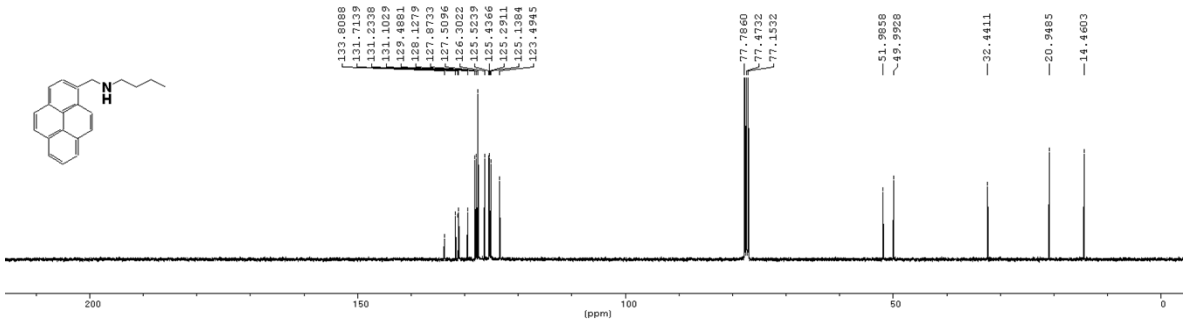

Fig. S6 ^{13}C NMR of Py-ABu (**3**) in $CDCl_3$.

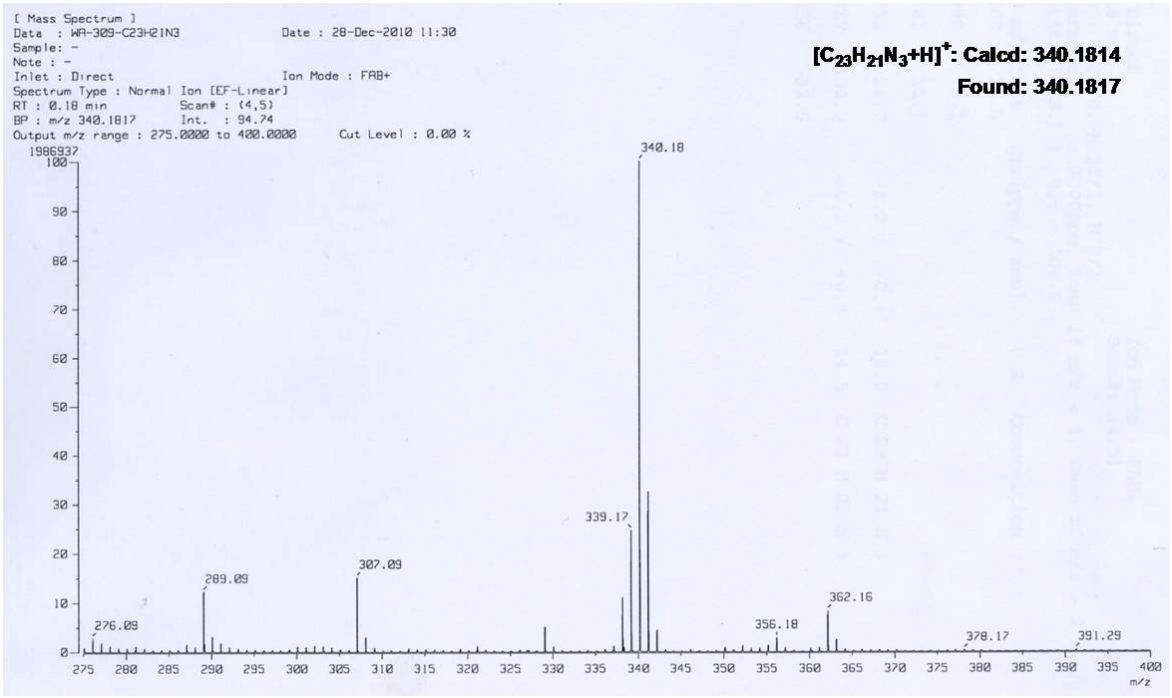

Fig. S7 HR-FAB Mass of Py-AIM (**1**)

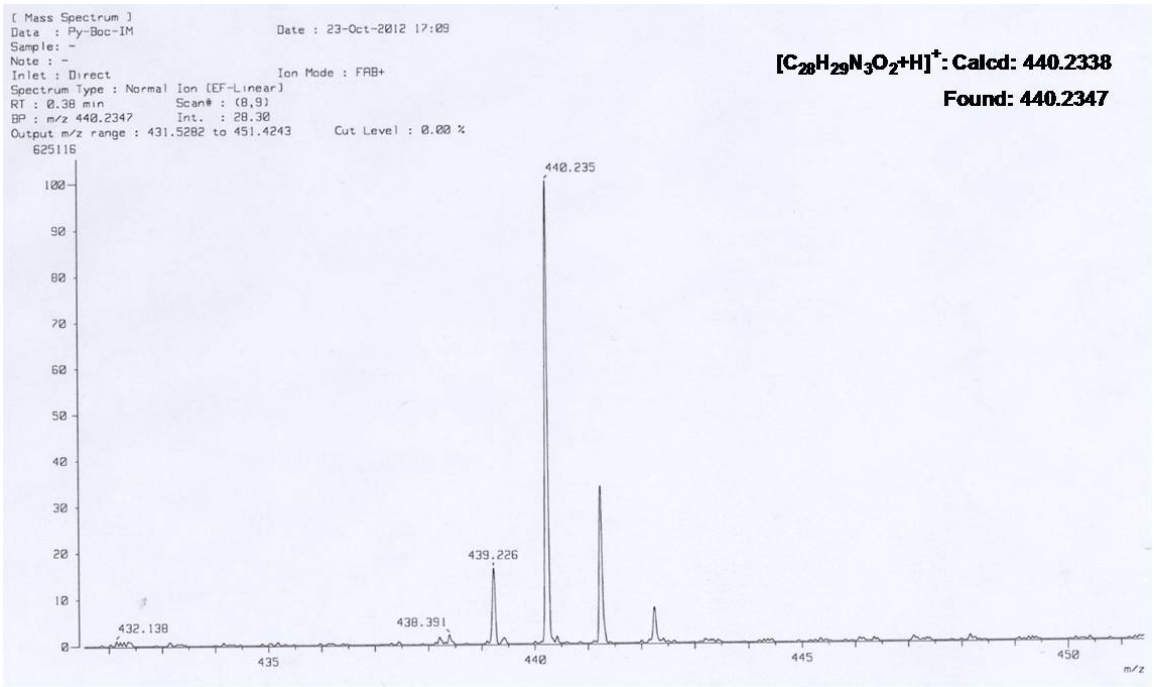

Fig. S8 HR-FAB Mass of Py-BIM-Boc (**2**)

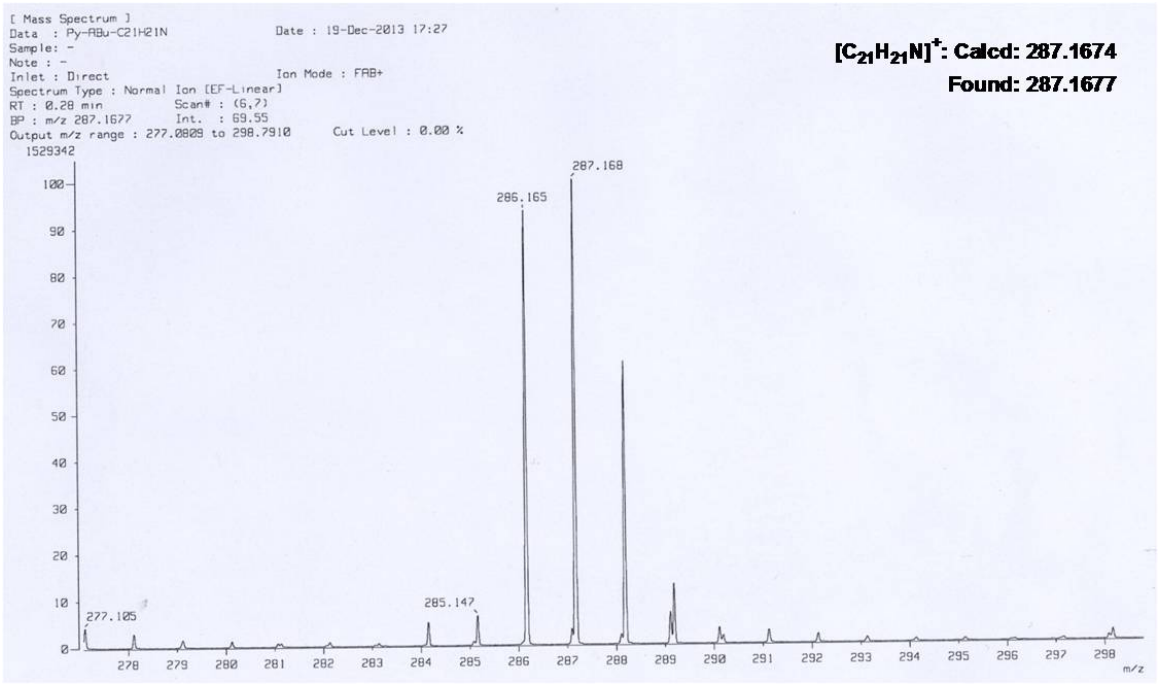

Fig. S9 HR-FAB Mass of Py-ABu (**3**).

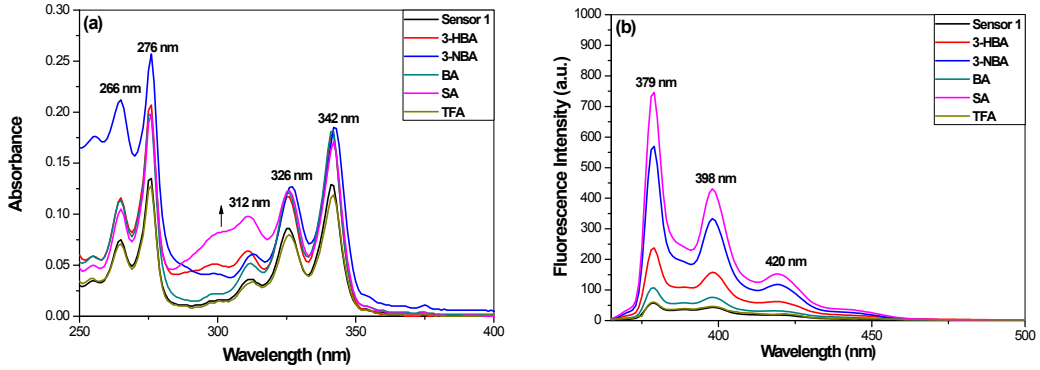

Fig. S10 (a) UV-vis spectra and (b) fluorescence spectra of receptor **1** (3 μM) with various 10 equiv of ACAs and TFA in EtOH (λ_{ex} = 342 nm).

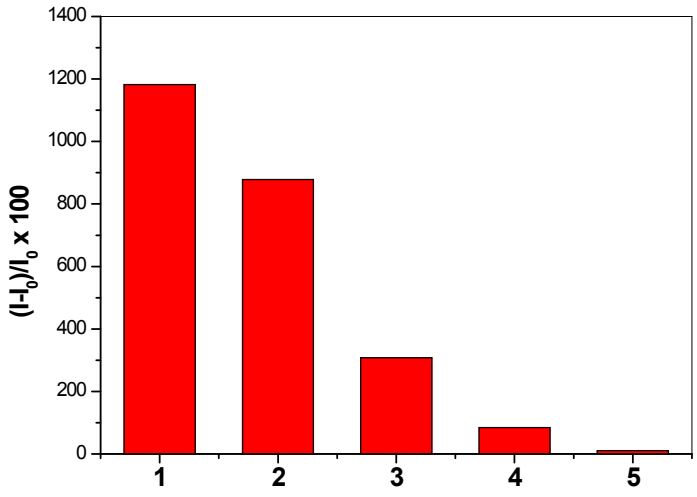

Fig. S11 Fluorescence enhancement ratio [$(I-I_0/I_0)$ x 100] of receptor **1** (3 μM) at 379 nm upon the addition of 10 equiv of various ACAs in EtOH (1) **1** + SA, (2) **1** + 3-NBA, (3) **1** + 3-HBA, (4) **1** + BA, (5) **1**+TFA.

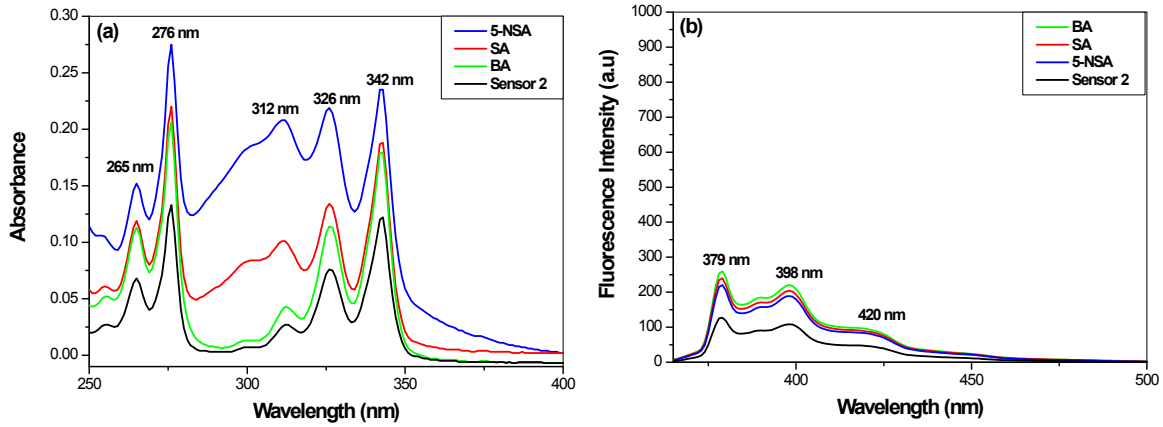

Fig. S12 (a) UV-vis spectra and (b) fluorescence spectra of receptor **2** (3 μM) with various 10 equiv of ACAs in EtOH (λ_{ex} = 342 nm).

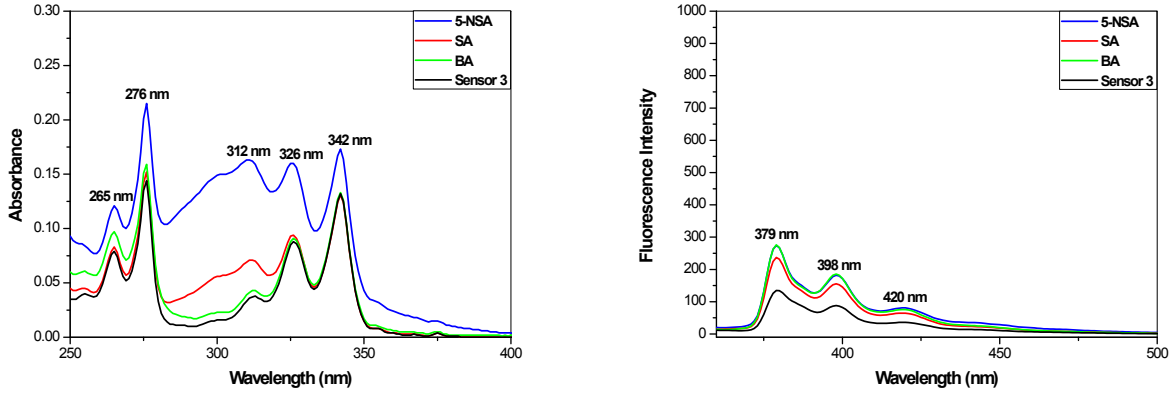

Fig. S13 (a) UV-vis spectra receptor **3** (3 μM) and (b) fluorescence spectra of receptor **3** (0.3 μM) with various 10 equiv of ACAs in EtOH (λ_{ex} = 342 nm).

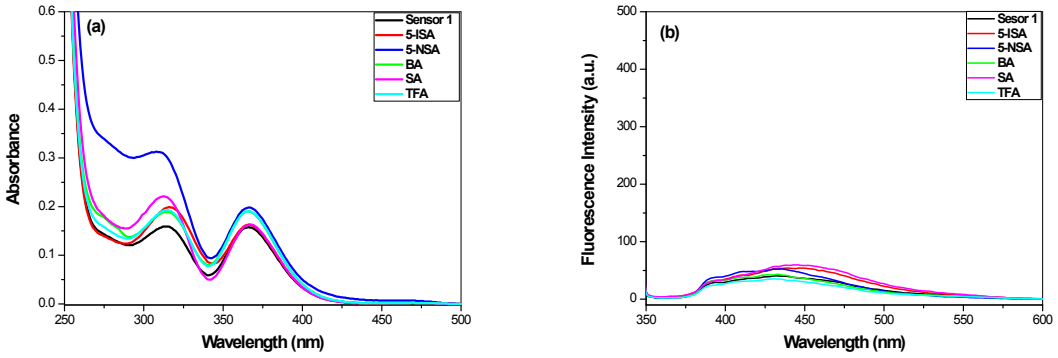

Fig. S14 (a) UV-vis spectra and (b) fluorescence spectra of receptor **1** (3 μM) with various 10 equiv of ACAs and TFA in $CHCl_3$ (λ_{ex} = 335 nm).

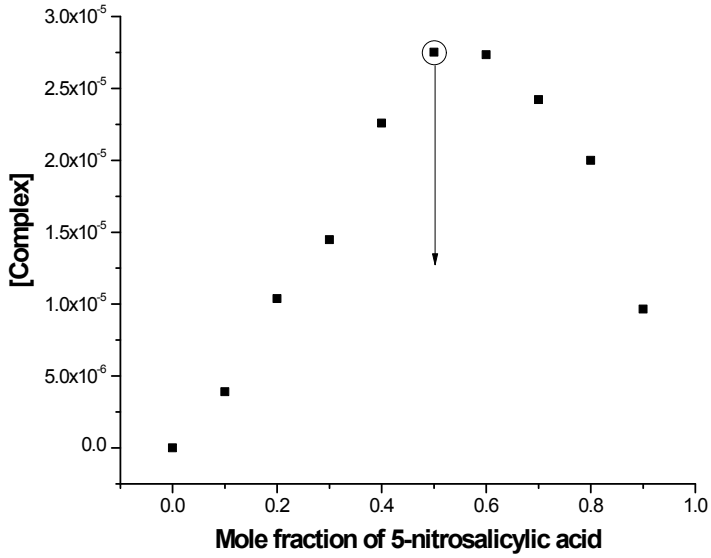

Fig. S15 Fluorescence Job's plot of receptor **1** with 5-NSA in EtOH measured at 398 nm showing a 1:1 binding.

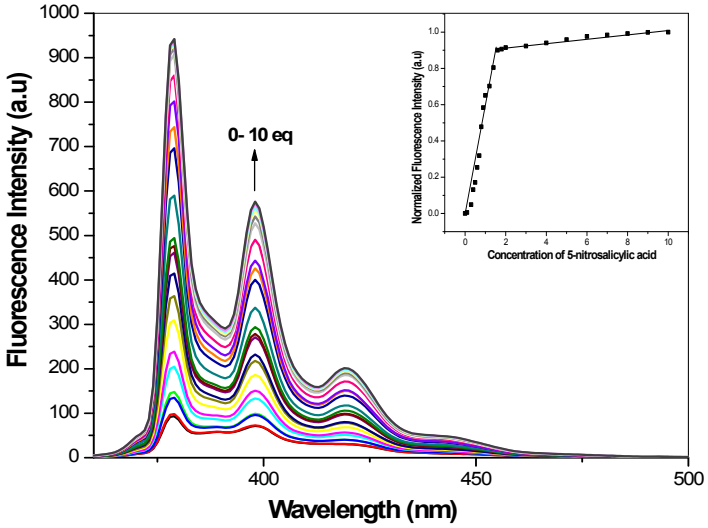

Fig. S16 Changes in fluorescence spectra of receptor **1** (3 μM) upon successive addition of 10 equiv of 5-NSA in EtOH (λ_{ex} = 342 nm). Inset: mol ratio plot of fluorescence intensity at 379 nm.