

Supporting Information

Heterocyclic Thiosemicarbazones as Fluorescent Sensor for the Selective Recognition of Cations in Aqueous Phase

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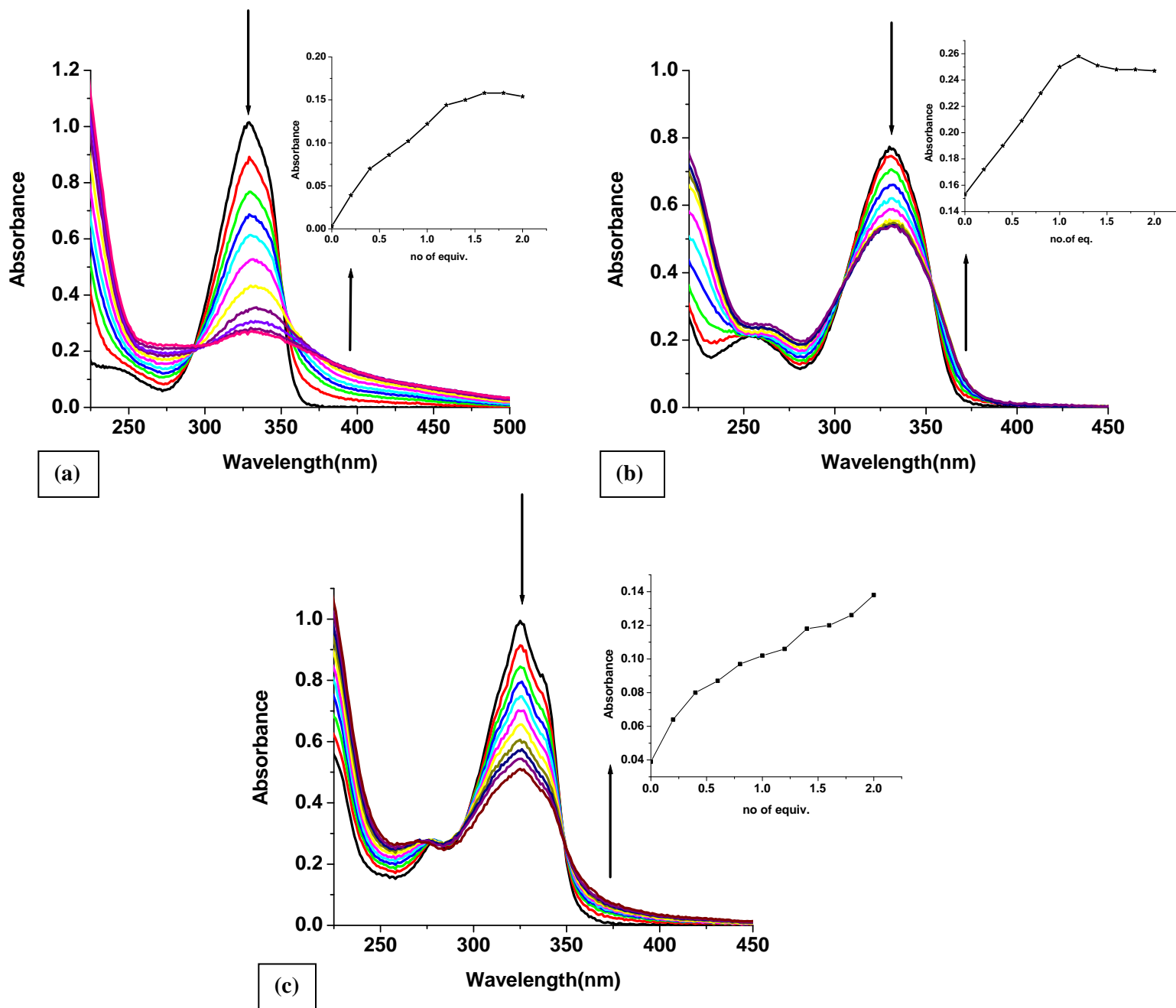


Fig. S1 UV-vis spectra of receptors (a) 1, (b) 2, (c) 3 (2.5×10^{-5} M in DMSO) with the addition of 0- 2 equiv. of Cu^{2+} ion (1.5×10^{-3} M in H_2O)

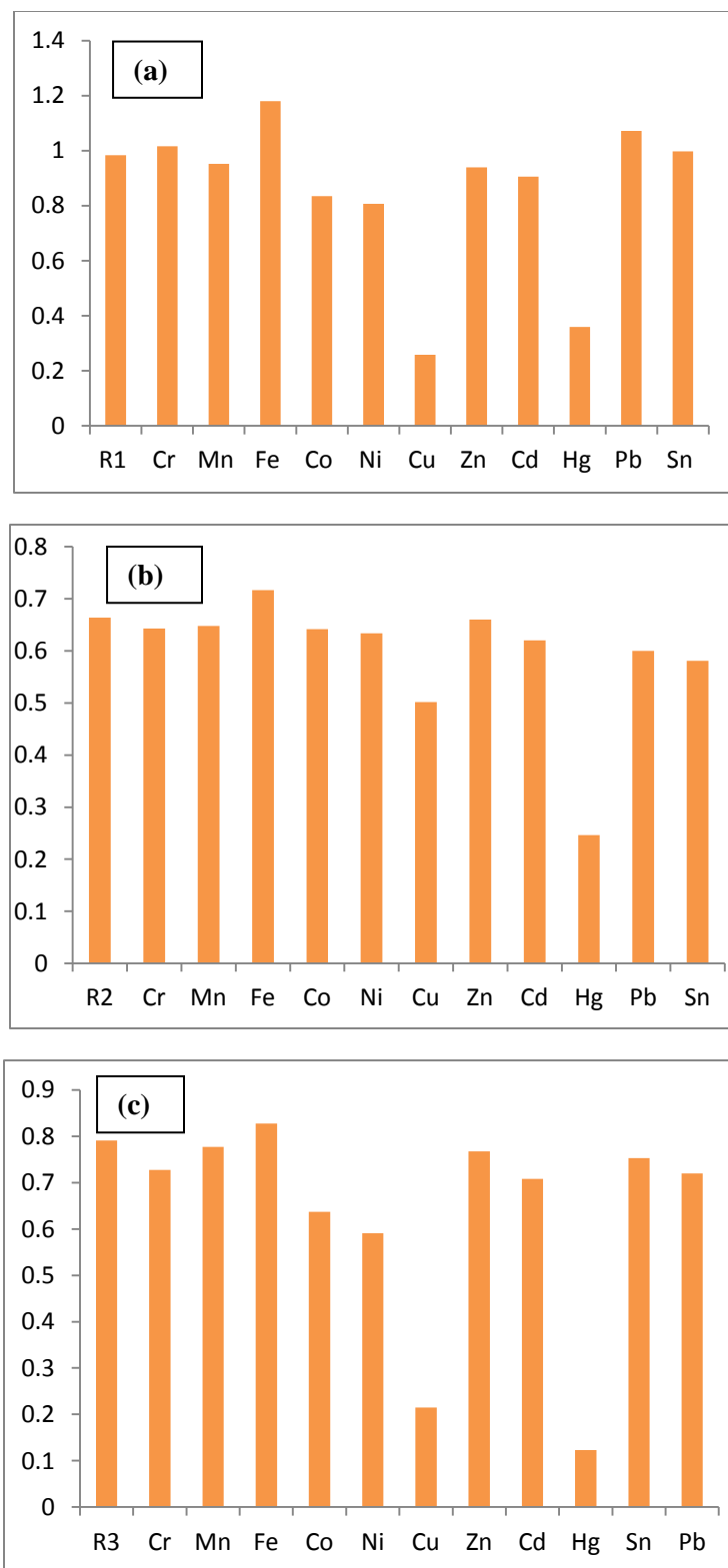


Fig. S2 UV-vis spectra of receptors (a) **1**, (b) **2**, (c) **3** (2.5×10^{-5} M in DMSO) with the addition of 2 equiv. of all cations (1.5×10^{-3} M in H_2O). (Changes observed in the intramolecular charge transfer band at 325nm).

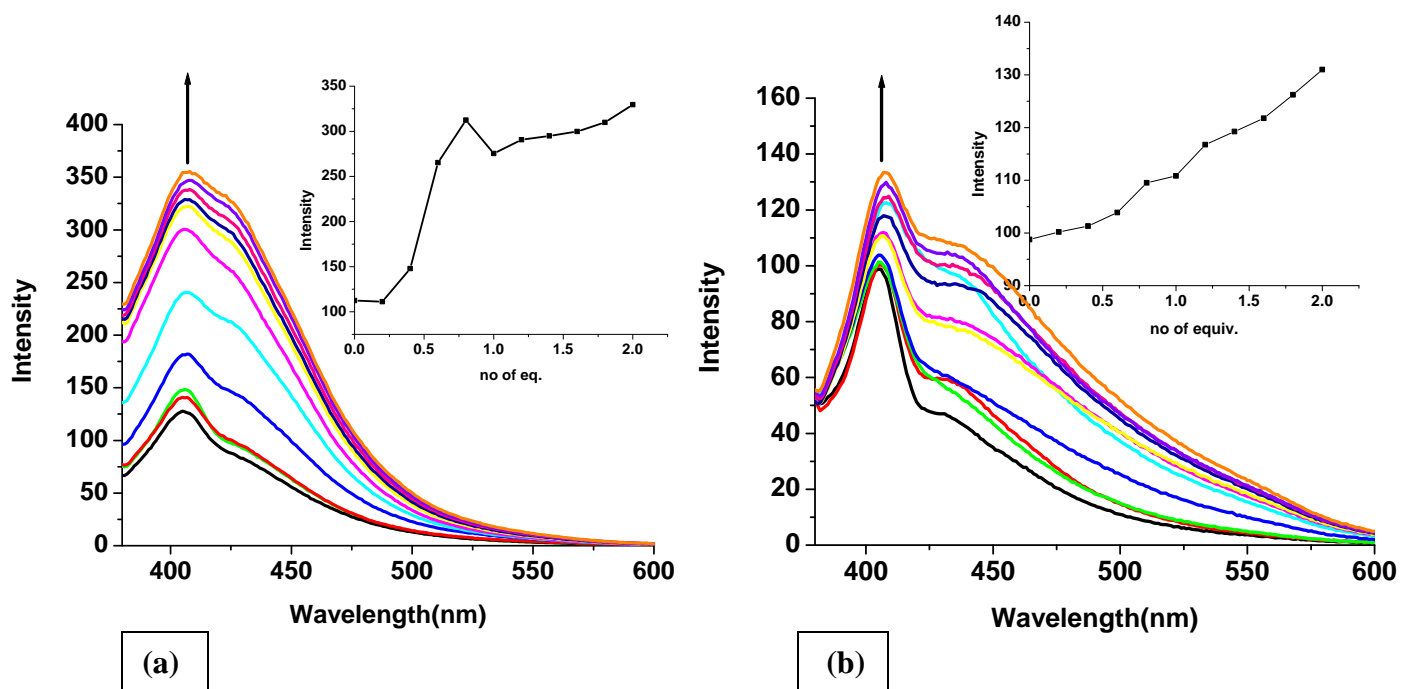


Fig. S3 Emission spectra of receptors (a) **2**, (b) **3** (2.5x10⁻⁵ M in DMSO) with the addition of 0-2 equiv. of Cu²⁺ ion (1.5x10⁻³ M in H₂O).

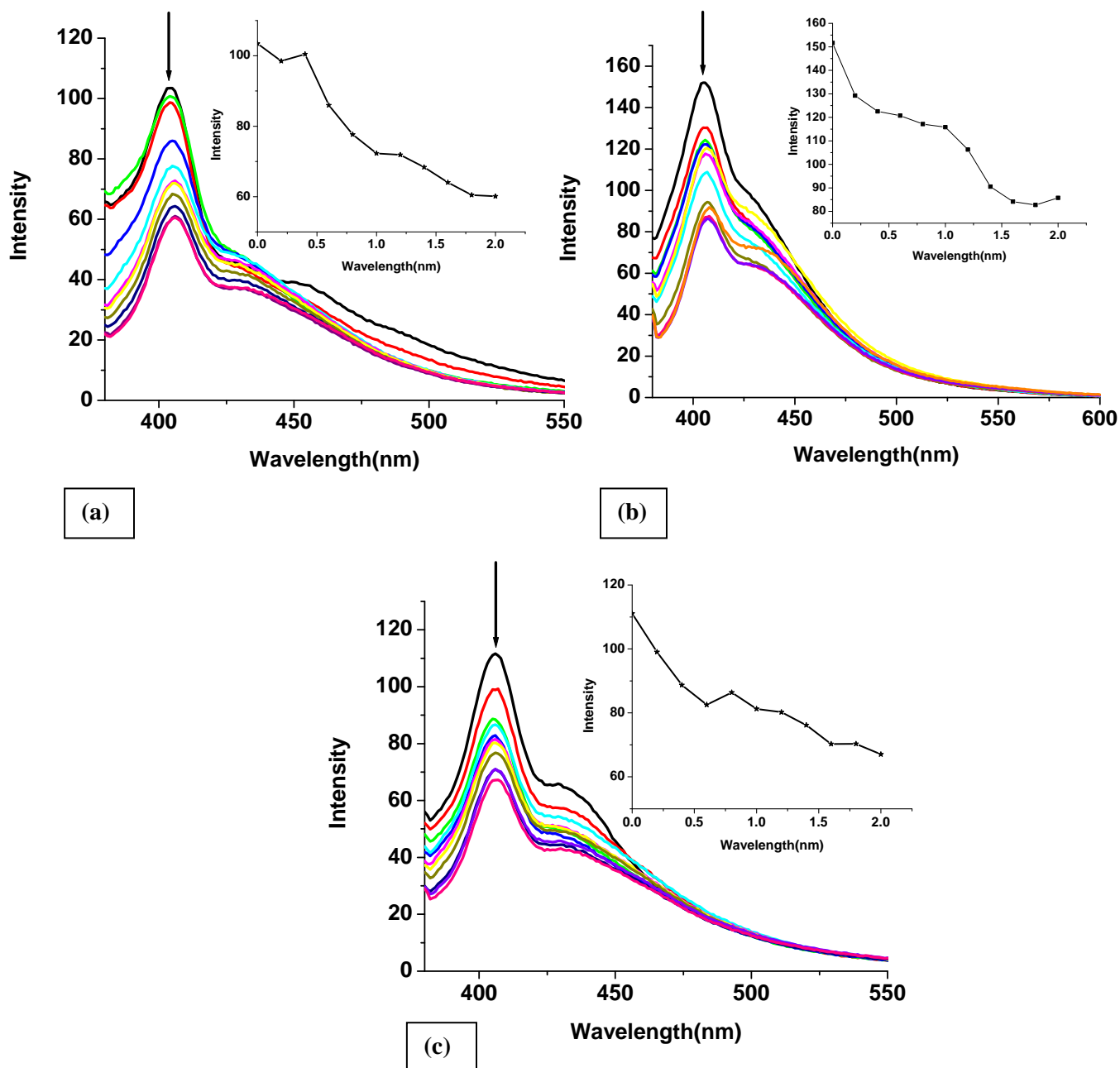


Fig. S4 Emission spectra of receptors (a) **1**, (b) **2**, (c) **3** (2.5×10^{-5} M in DMSO) with the addition of 0- 2 equiv. of Hg^{2+} ion (1.5×10^{-3} M in H_2O).

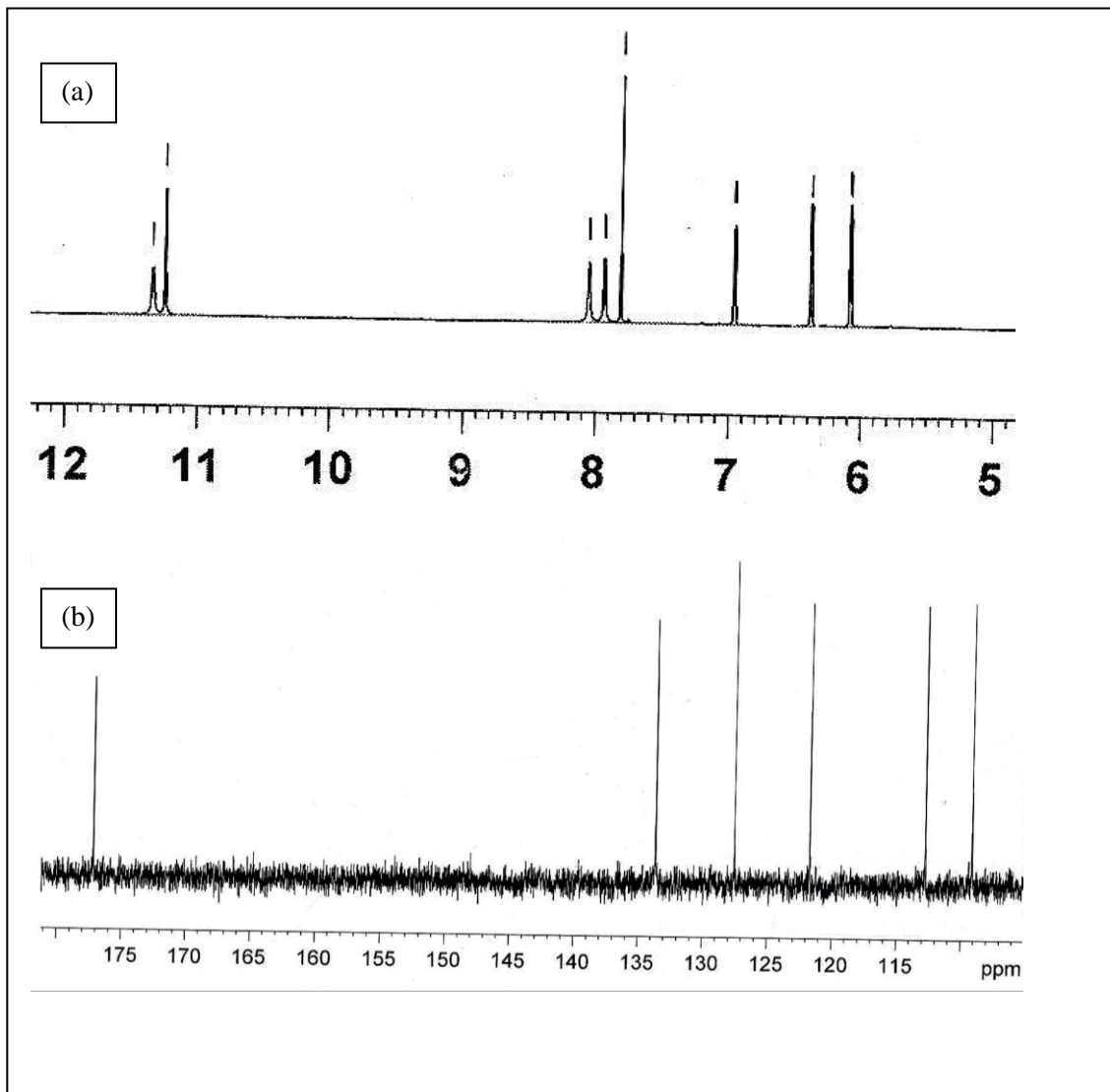


Fig. S5 (a) ^1H and (b) ^{13}C NMR for receptor **1** recorded on 300 MHz and 75 MHz spectrometer respectively using DMSO-d_6 .

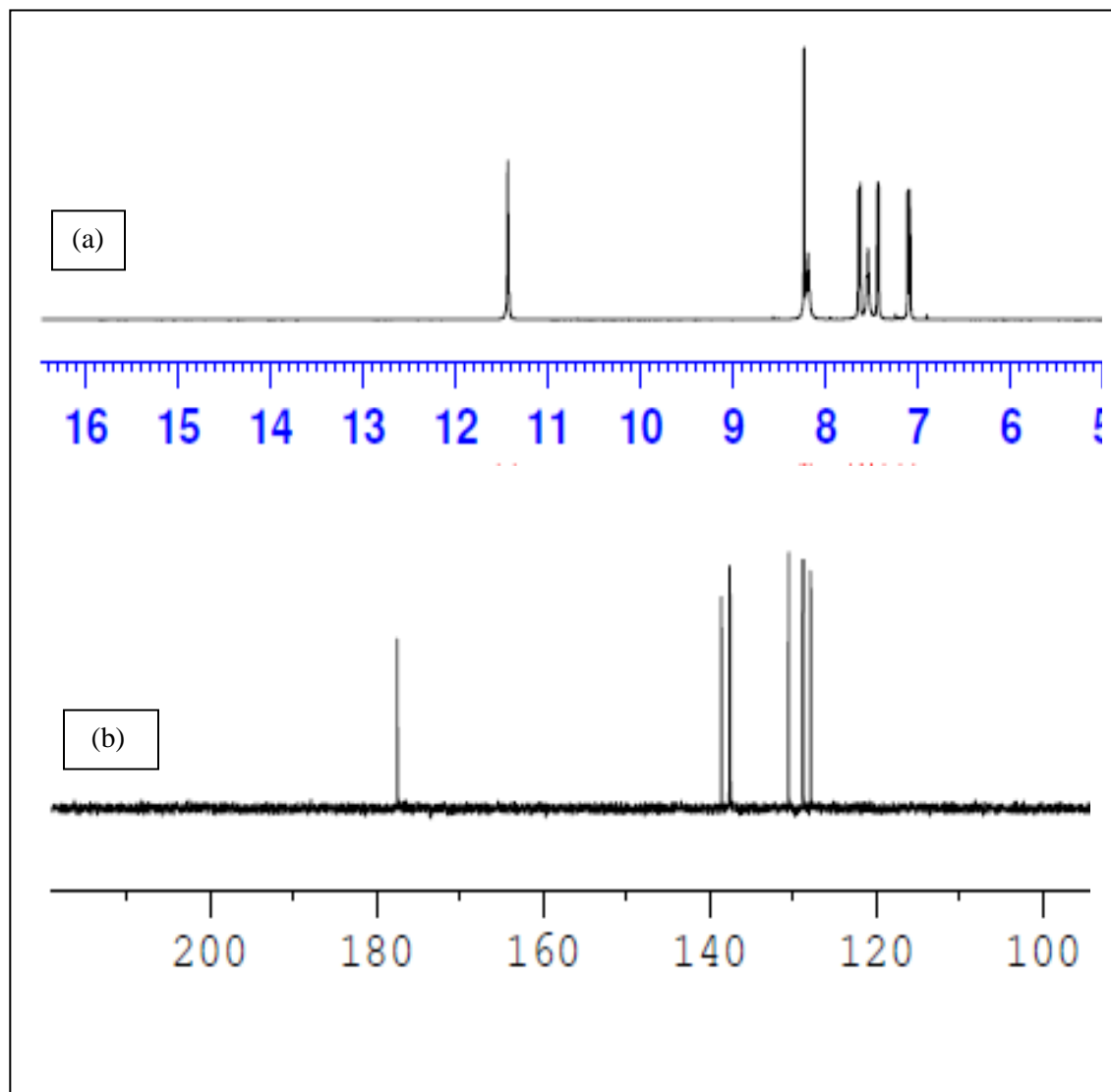


Fig. S6 (a) ^1H and (b) ^{13}C NMR for receptor **2** recorded on 300 MHz and 75 MHz spectrometer respectively using DMSO-d_6 .

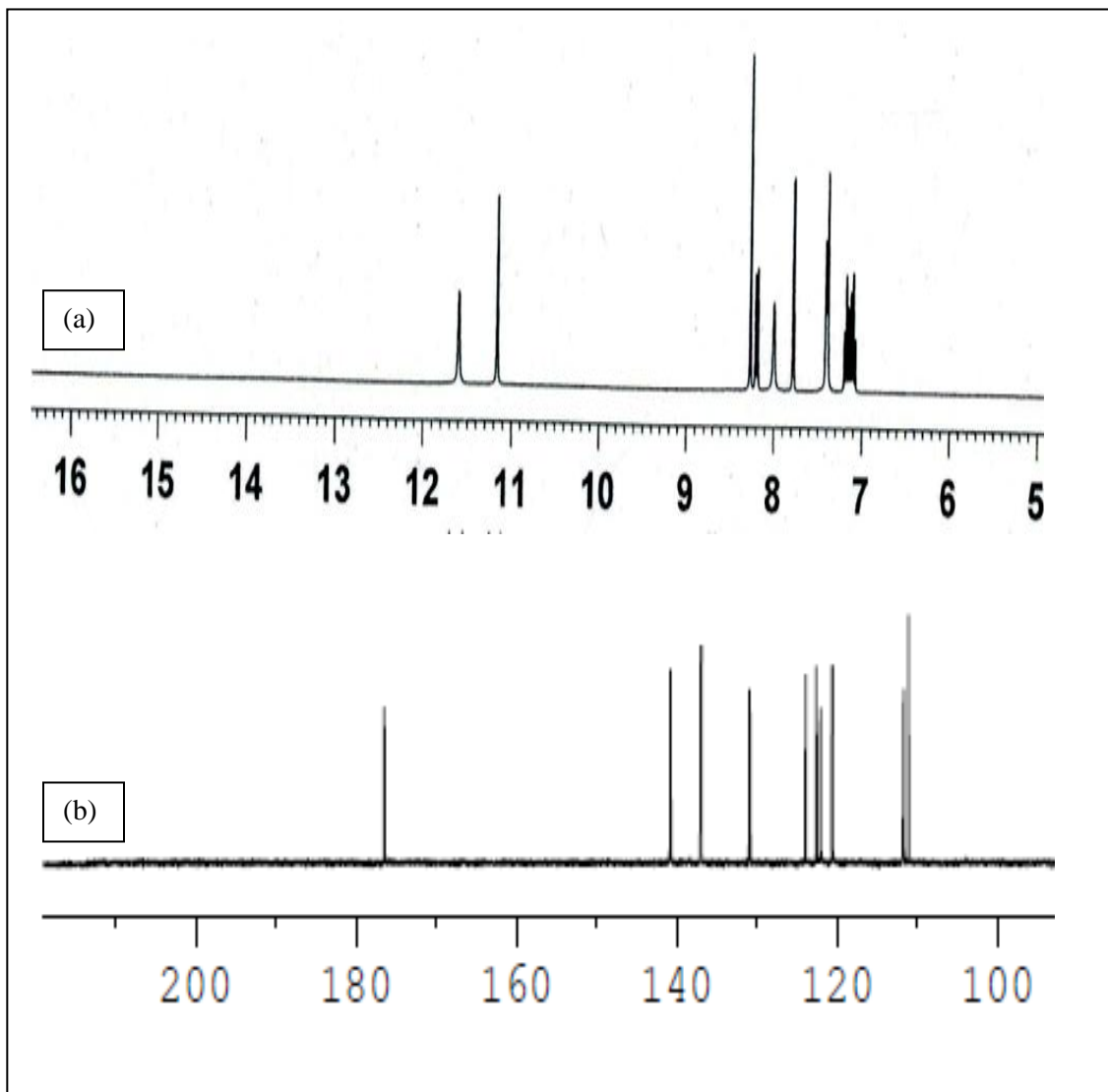


Fig. S7 (a) ^1H and (b) ^{13}C NMR for receptor **3** recorded on 300 MHz and 75 MHz spectrometer respectively using DMSO-d_6 .

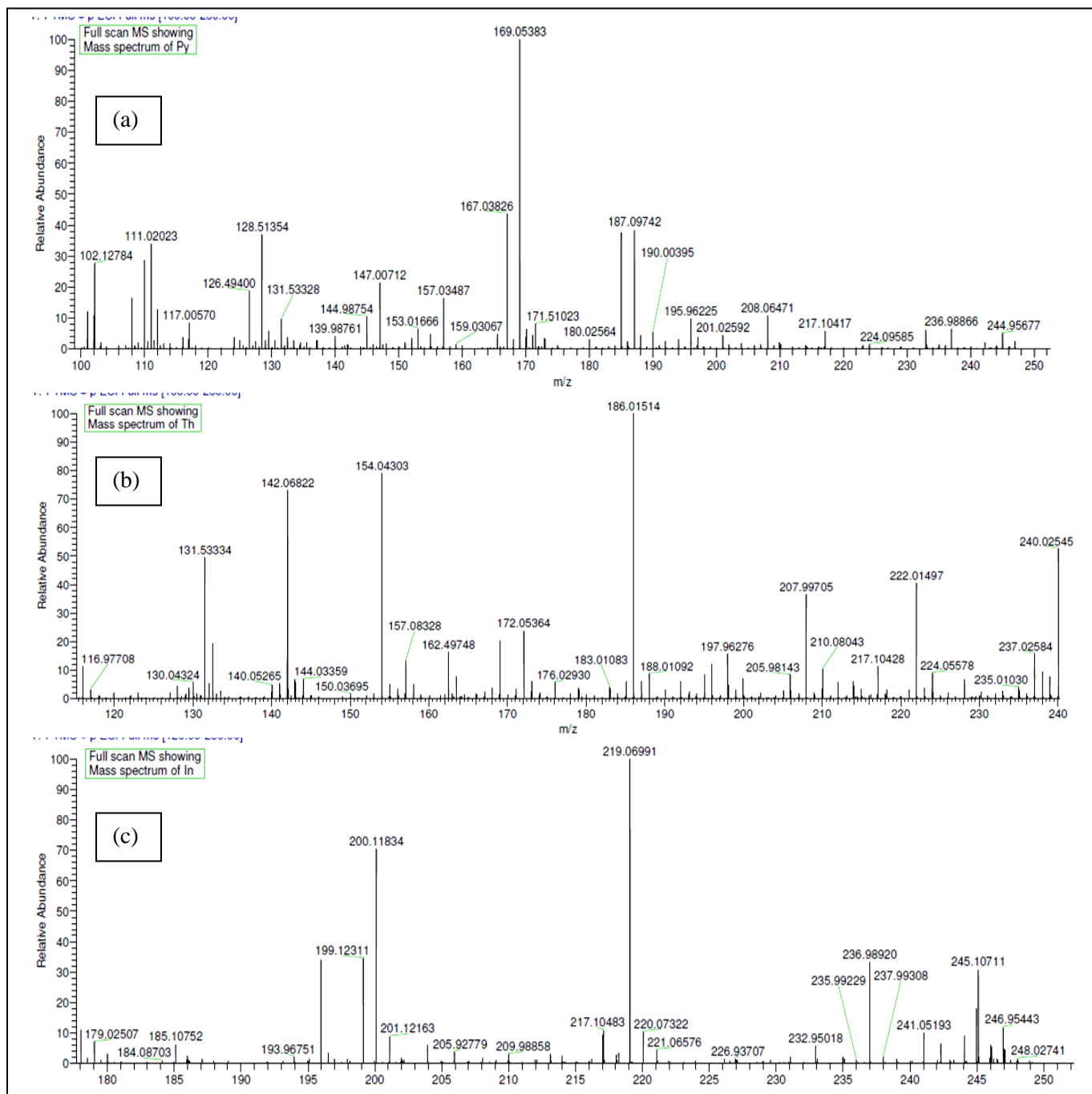


Fig. S8 HRMS data for receptors (a) **1**, (b) **2**, (c) **3** recorded on Orbitrap Q exactive mass spectrometer.