Electronic Supplementary Information for

Coumarin-Based Chiral Fluorescence Sensor Incorporating Thiourea unit for Highly Enantioselective Recognition of N-Boc-protected Proline

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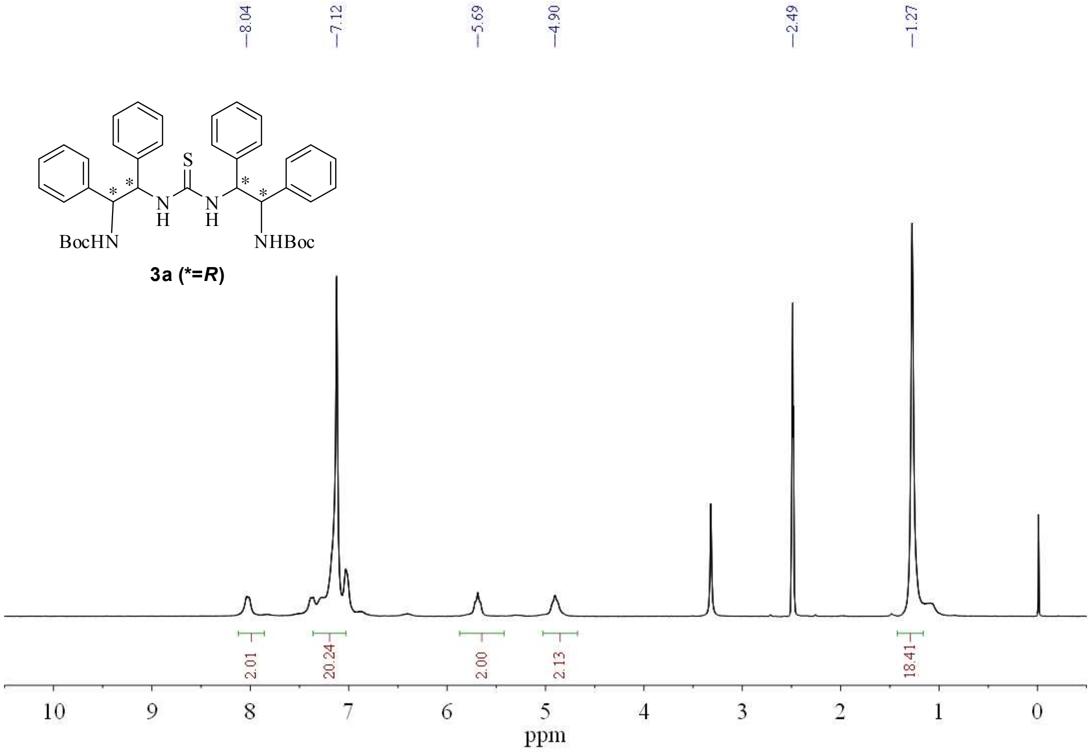
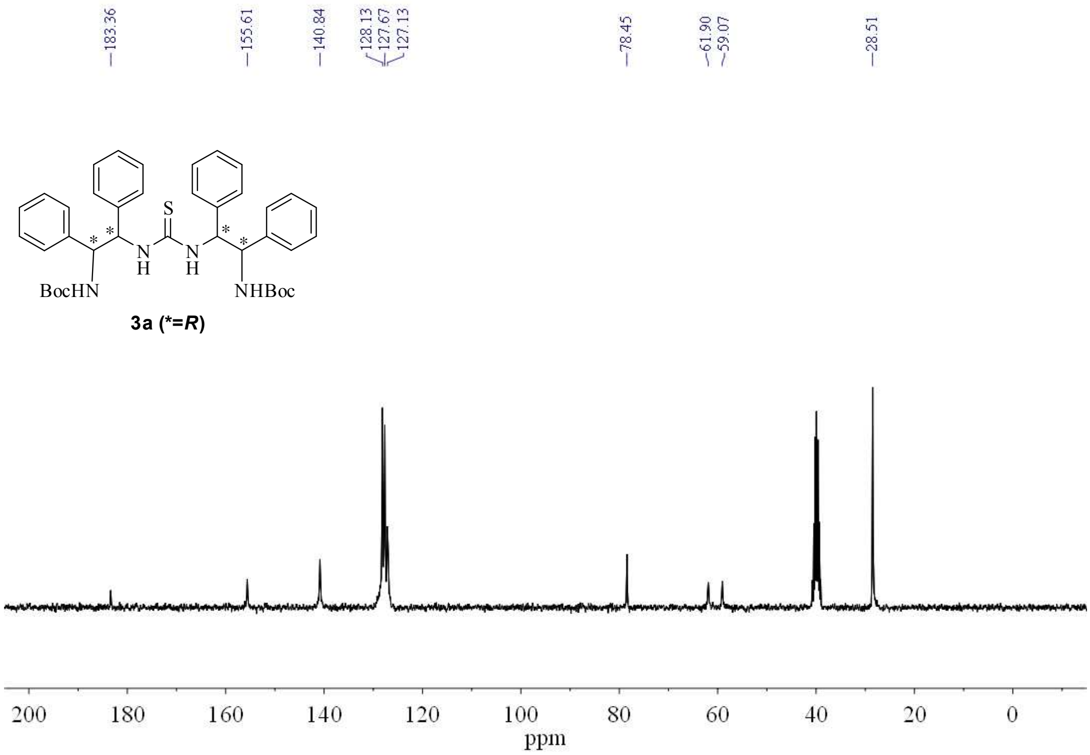
SI 1.[1]H NMR, and [13]C NMR Spectra

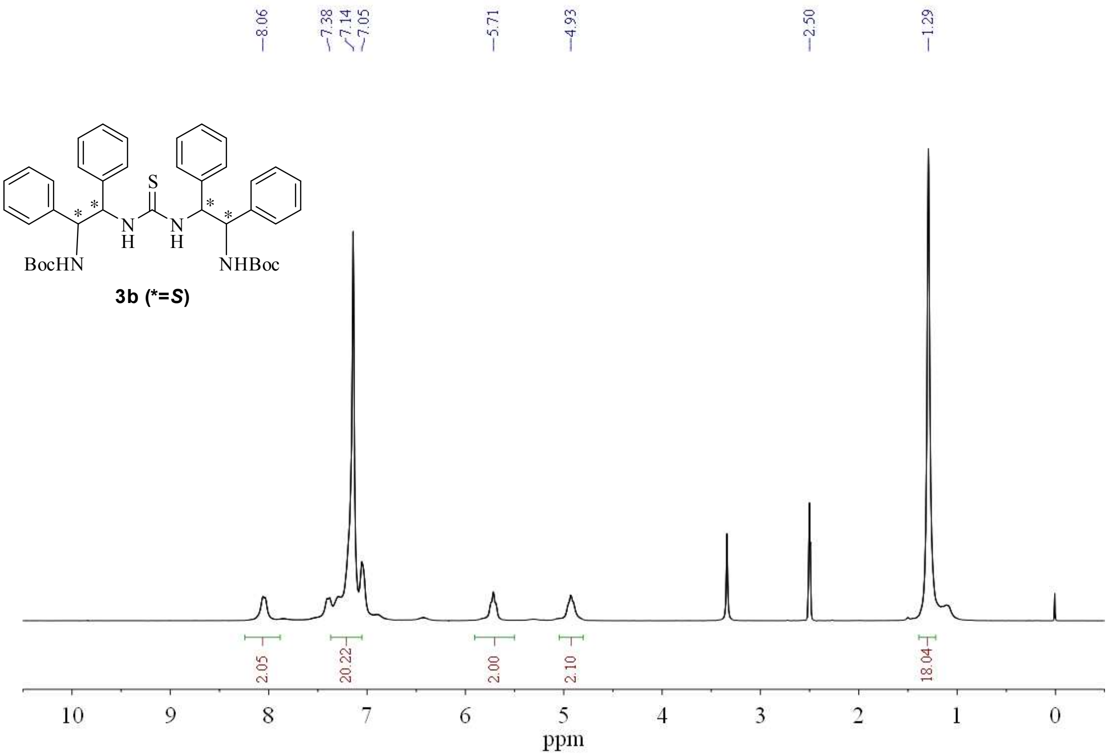
*[1]H-NMR Spectra of **3a** (300MHz, DMSO-d_6)*



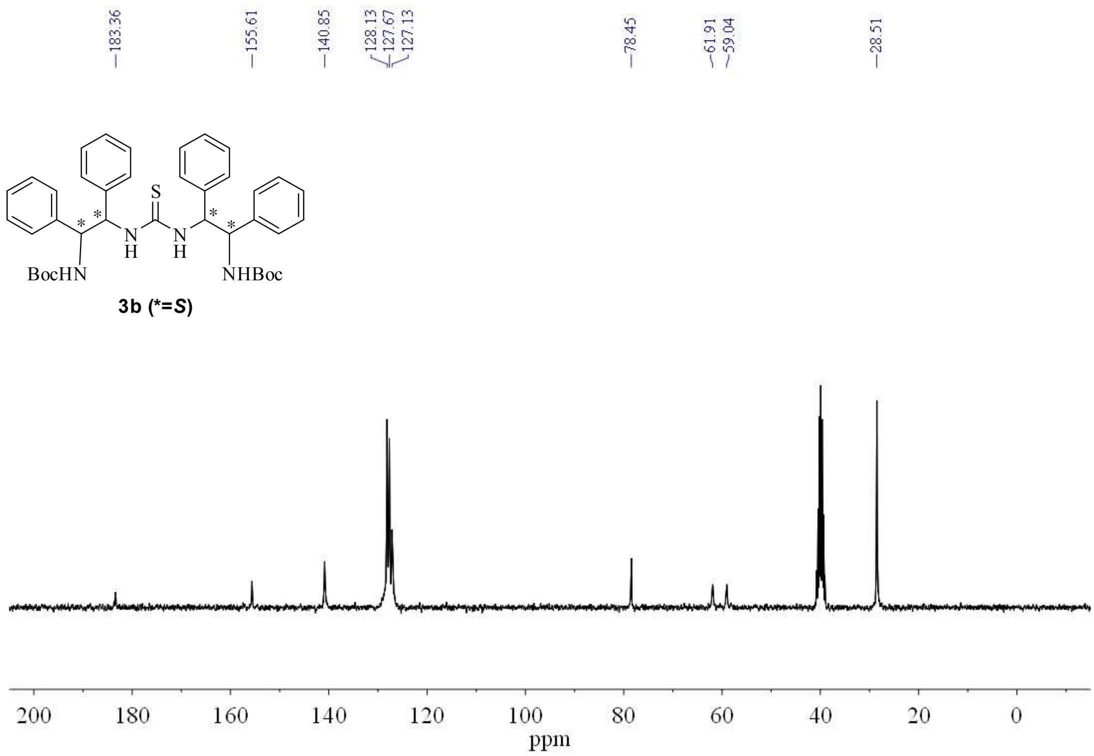
*[13]C-NMR Spectra of **3a** (75MHz, DMSO-d_6)*



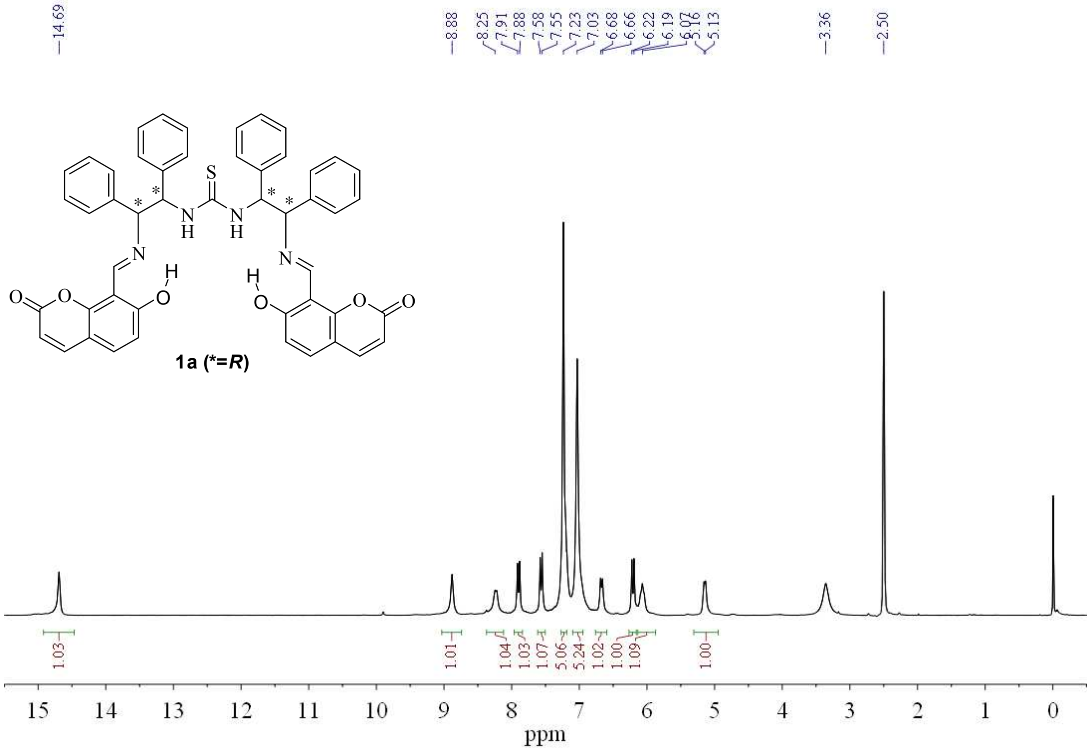
*^{1}H-NMR Spectra of **3b** (300MHz, DMSO-d_6)*



*^{13}C-NMR Spectra of **3b** (75MHz, DMSO-d_6)*

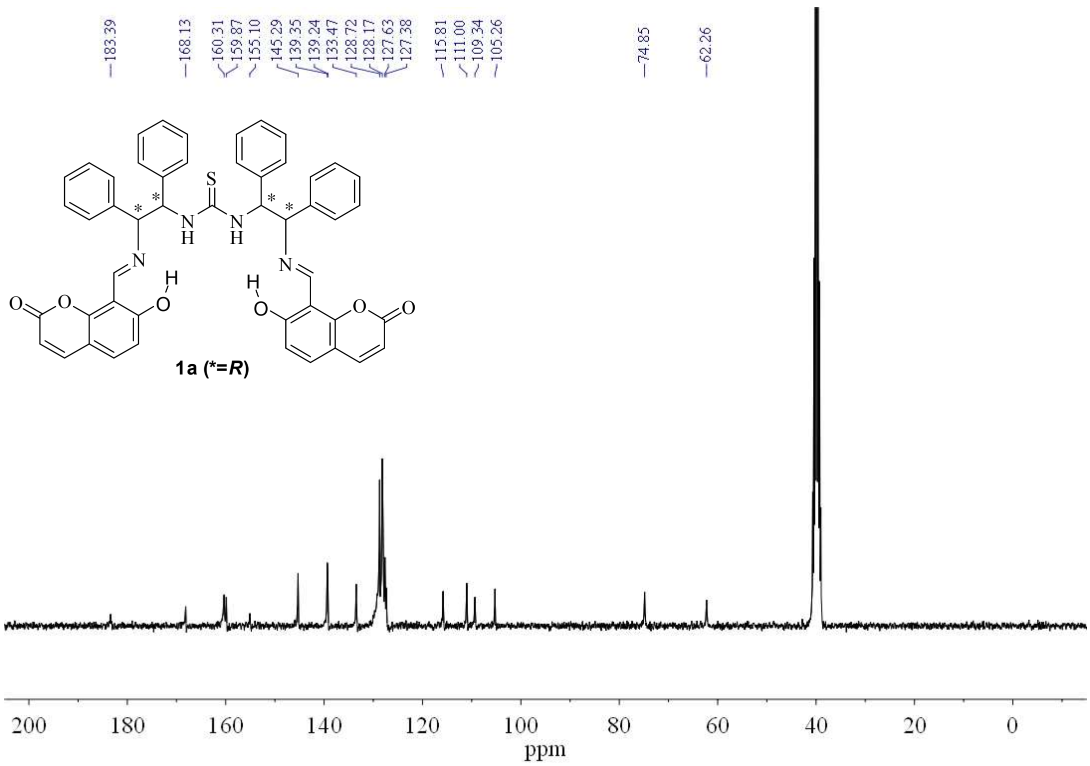


*[1]H-NMR Spectra of **1a** (300MHz, DMSO-d_6)*



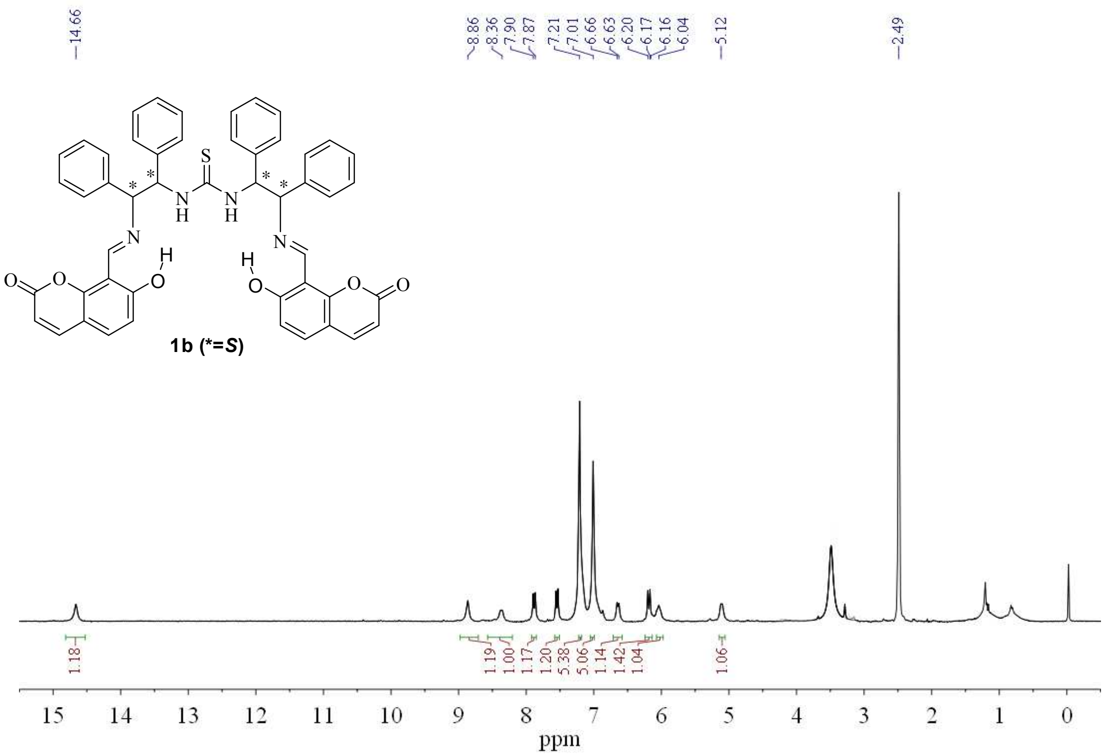
1a (*=*R*)

*[13]C-NMR Spectra of **1a** (75MHz, DMSO-d_6)*

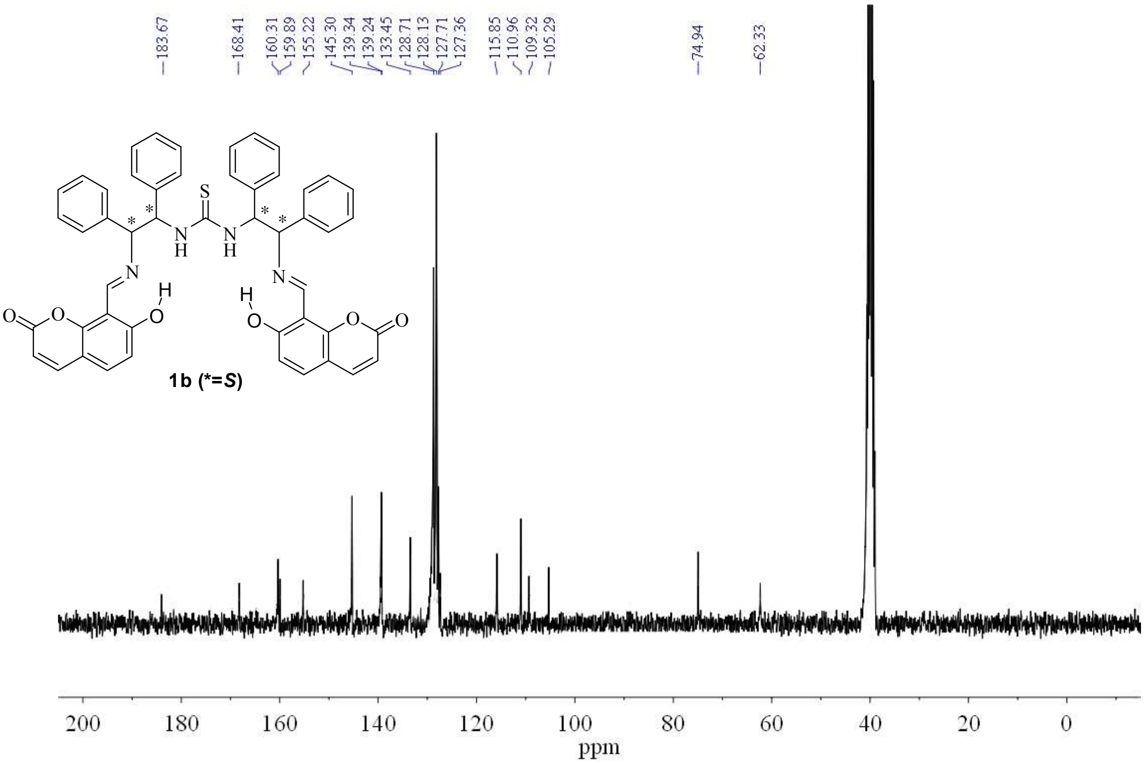


1a (*=*R*)

*^{1}H-NMR Spectra of **1b** (300MHz, DMSO-d_6)*



*^{13}C-NMR Spectra of **1b** (75MHz, DMSO-d_6)*



SI 2. Spectra Data

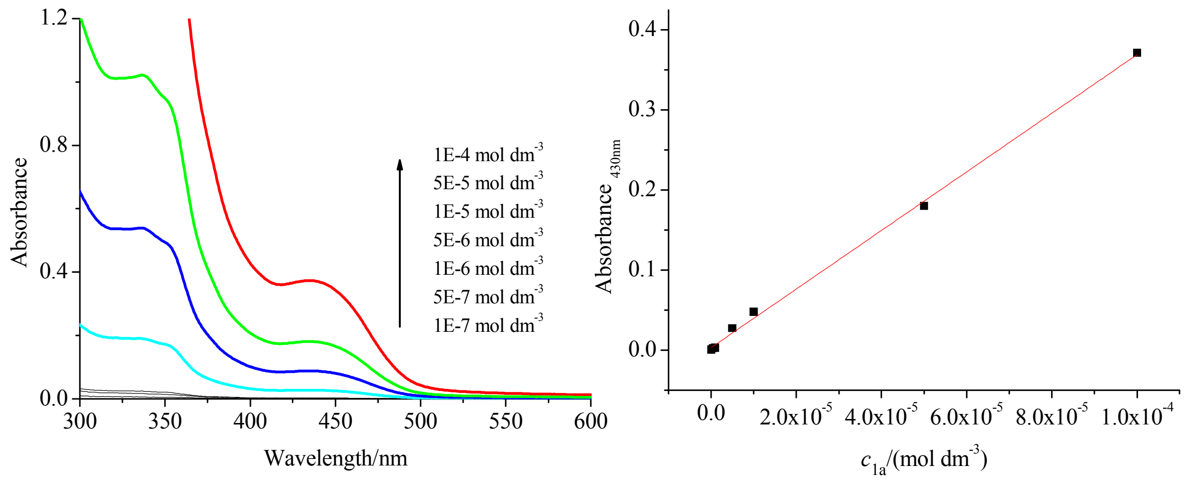


Figure S1. Concentration effect on the UV-Vis spectra of **1a** in toluene

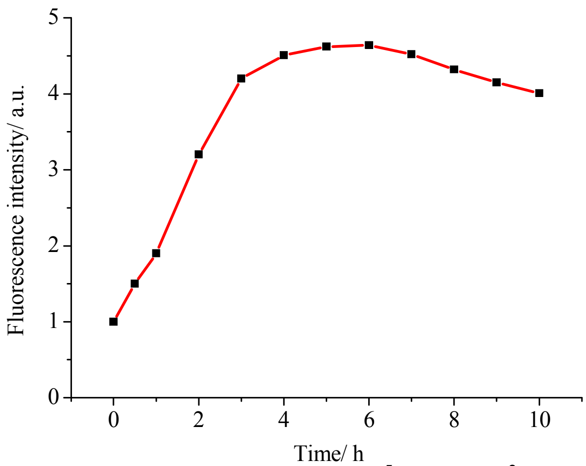


Figure S2. Kinetic study of sensor **1a** (1.0×10^{-5} mol dm^{-3}) with Boc-*D*-Pro (1.0×10^{-3} mol dm^{-3}) in toluene λex = 430 nm, λem = 502 nm.

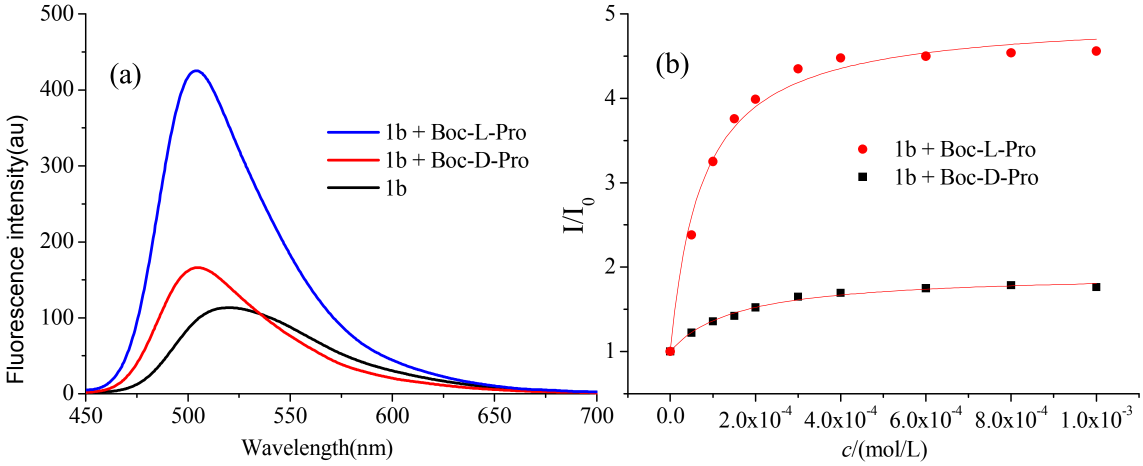


Figure S3. a) Fluorescence spectra of **1b** (1.0×10^{-5} mol dm^{-3} in toluene) with Boc-(*D* or *L*)-Pro (1.0×10^{-3} mol dm^{-3}) and **b**) the plots of (I/I_0) versus the concentration of acids during the titration of **1b** with Boc-(*D* or *L*)-Pro (λex = 430 nm, λem = 502 nm).

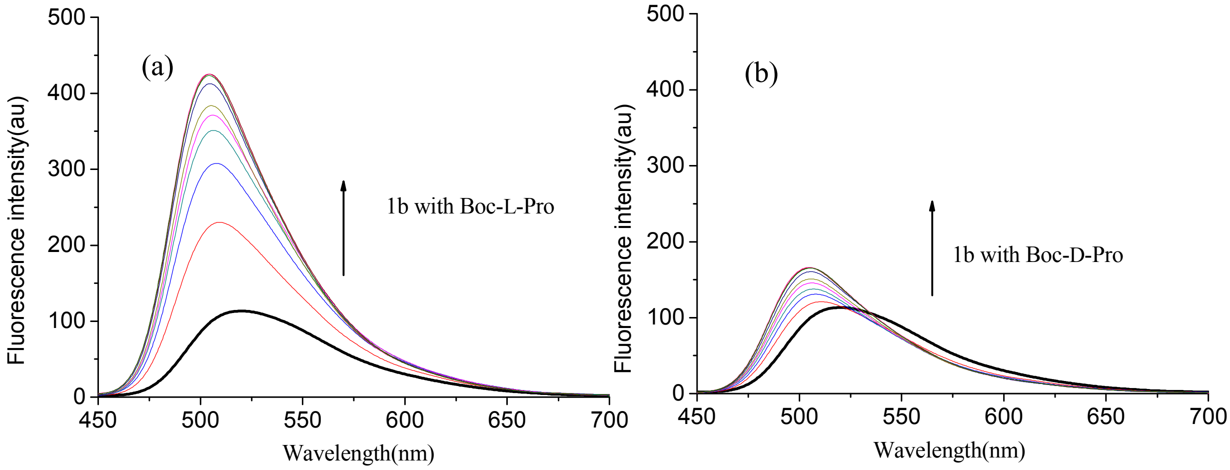


Figure S4. Fluorescence spectra of **1b** (1.0×10^{-5} mol dm^{-3} in toluene solution) with **a**) Boc-*L*-Pro and **b**) Boc-*D*-Pro; Concentrations of Boc-(*L* or *D*)-Pro are from 5.0×10^{-5} mol dm^{-3} to 1.0×10^{-3} mol dm^{-3} (λ_{ex} = 430 nm).

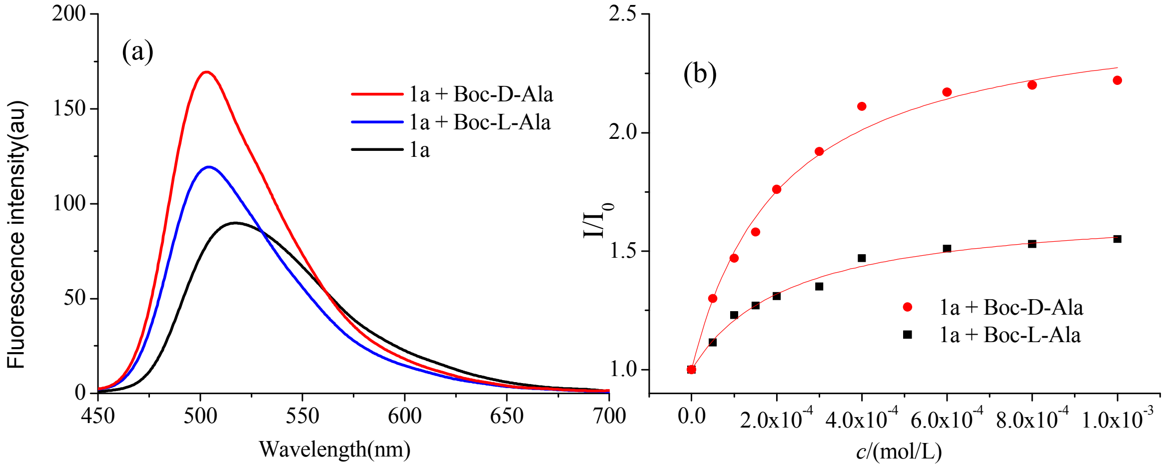


Figure S5. a) Fluorescence spectra of **1a** (1.0×10^{-5} mol dm^{-3} in toluene) with Boc-(*D* or *L*)-Ala (1.0×10^{-3} mol dm^{-3}) and **b**) the plots of (I/I_0) versus the concentration of acids during the titration of **1a** with Boc-(*D* or *L*)-Ala (λex = 430 nm, λem = 502 nm).

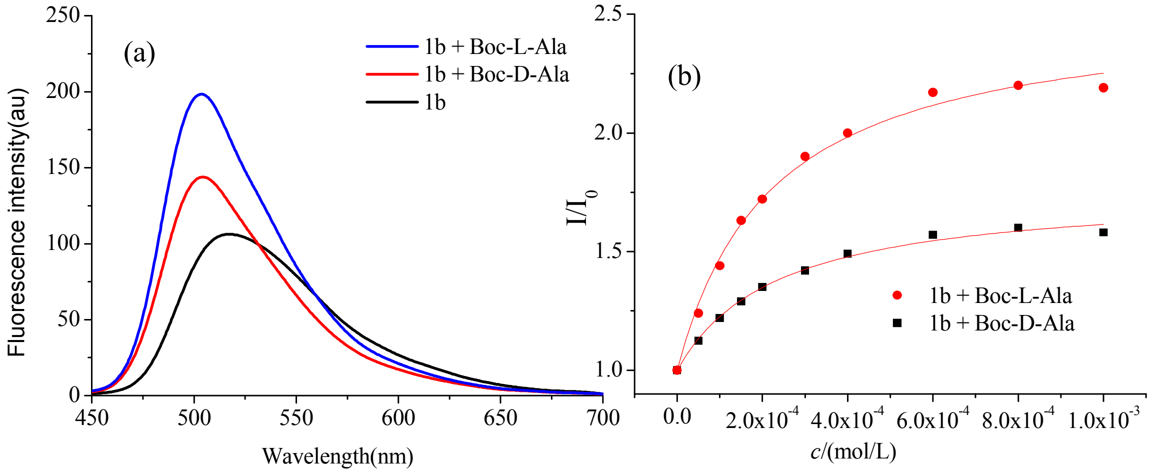


Figure S6. a) Fluorescence spectra of **1b** (1.0×10^{-5} mol dm^{-3} in toluene) with Boc-(*D* or *L*)-Ala (1.0×10^{-3} mol dm^{-3}) and **b**) the plots of (I/I_0) versus the concentration of acids during the titration of **1b** with Boc-(*D* or *L*)-Ala (λex = 430 nm, λem = 502 nm).

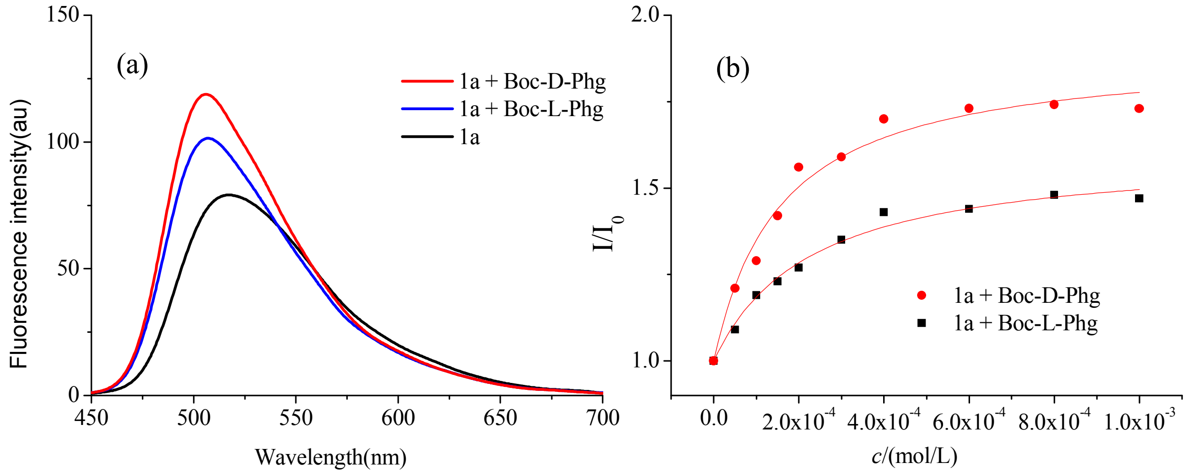


Figure S7. a) Fluorescence spectra of **1a** (1.0×10^{-5} mol dm^{-3} in toluene) with Boc-(*D* or *L*)-Phg (1.0×10^{-3} mol dm^{-3}) and **b**) the plots of (I/I_0) versus the concentration of acids during the titration of **1a** with Boc-(*D* or *L*)-Phg (λex = 430 nm, λem = 502 nm).

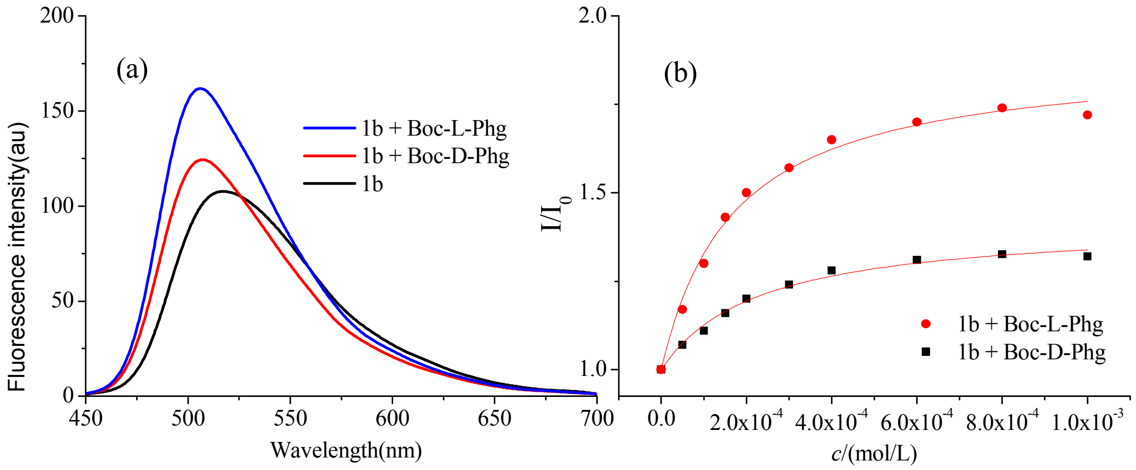


Figure S8. a) Fluorescence spectra of **1b** (1.0×10^{-5} mol dm^{-3} in toluene) with Boc-(*D* or *L*)-Phg (1.0×10^{-3} mol dm^{-3}) and **b**) the plots of (I/I_0) versus the concentration of acids during the titration of **1b** with Boc-(*D* or *L*)-Phg (λex = 430 nm, λem = 502 nm).

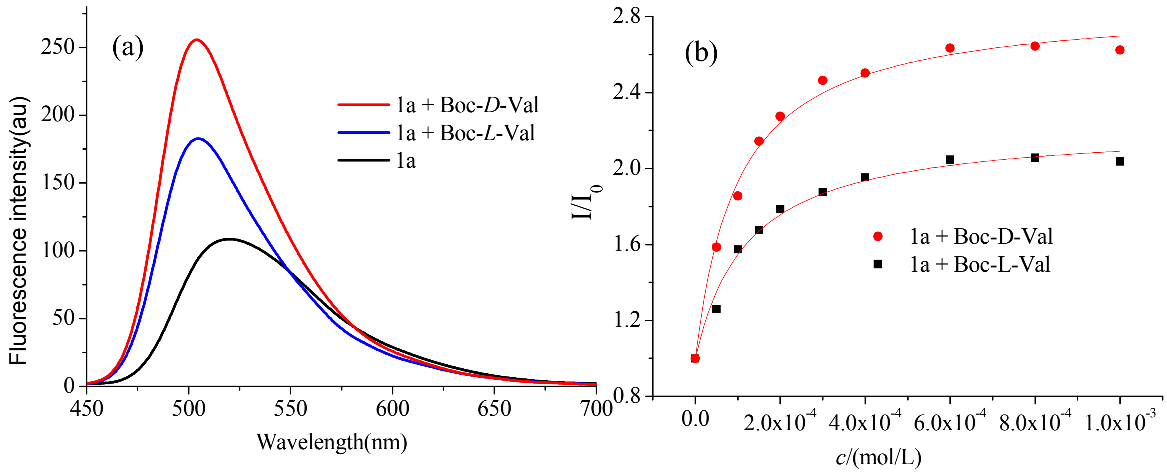


Figure S9. a) Fluorescence spectra of **1a** (1.0×10^{-5} mol dm^{-3} in toluene) with Boc-(*D* or *L*)-Val (1.0×10^{-3} mol dm^{-3}) and **b**) the plots of (I/I_0) versus the concentration of acids during the titration of **1a** with Boc-(*D* or *L*)-Val (λex = 430 nm, λem = 502 nm).

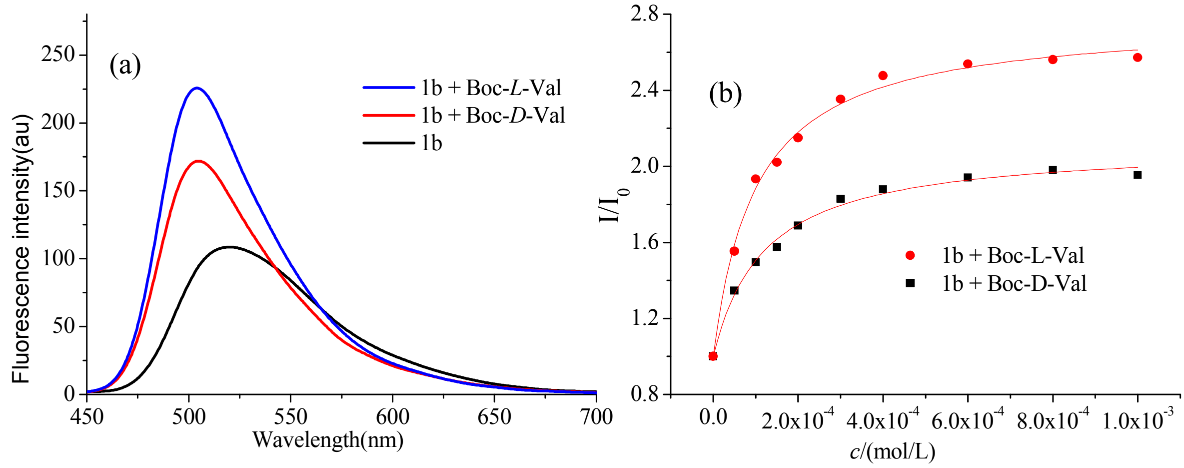


Figure S10. a) Fluorescence spectra of **1b** (1.0×10^{-5} mol dm^{-3} in toluene) with Boc-(*D* or *L*)-Val (1.0×10^{-3} mol dm^{-3}) and **b**) the plots of (I/I_0) versus the concentration of acids during the titration of **1b** with Boc-(*D* or *L*)-Val (λex = 430 nm, λem = 502 nm).