Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supplementary Material

A novel platinum(II) anticancer complex of danysl bis(2-benzothiazolylmethyl)amine with a dimethyl sulfoxide as a leaving group: synthesis, cytotoxicity, interaction with DNA and human serum albumin

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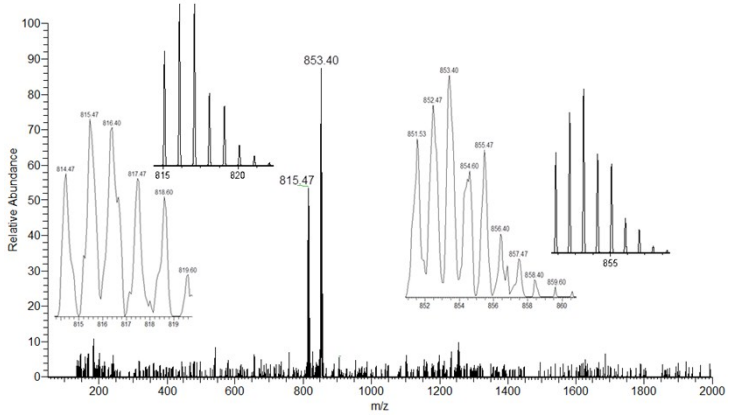

Fig. S1 ESI-MS of [Pt**L**(DMSO)Cl]Cl (**1**) in methanol.

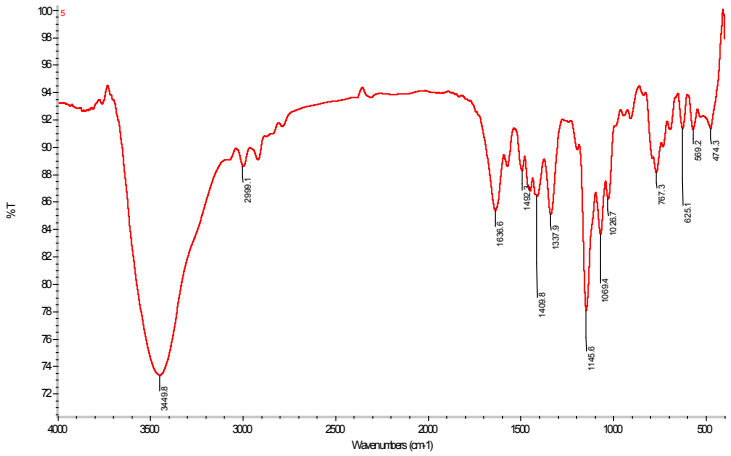

Fig. S2 The solid-state IR absorption spectrum of complex **1**.

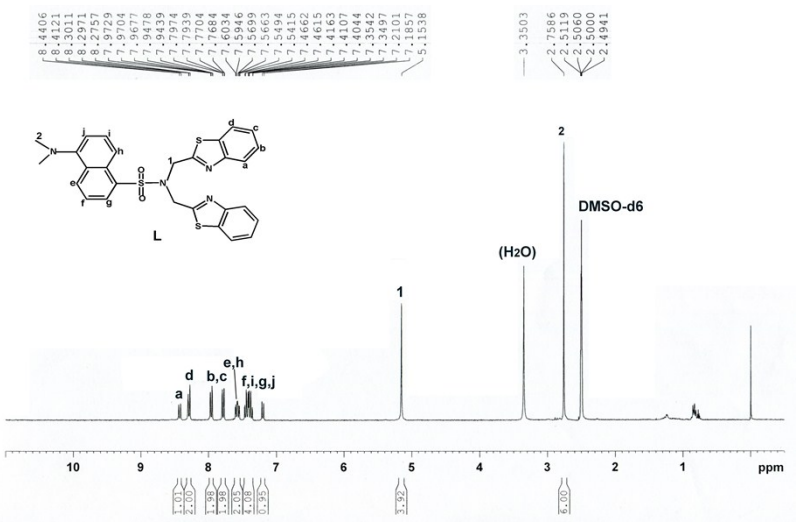

Fig. S3 ^{1}H NMR spectrum of danysl bis(2-benzothiazolylmethyl)amine (**L**) in DMSO-d^6.

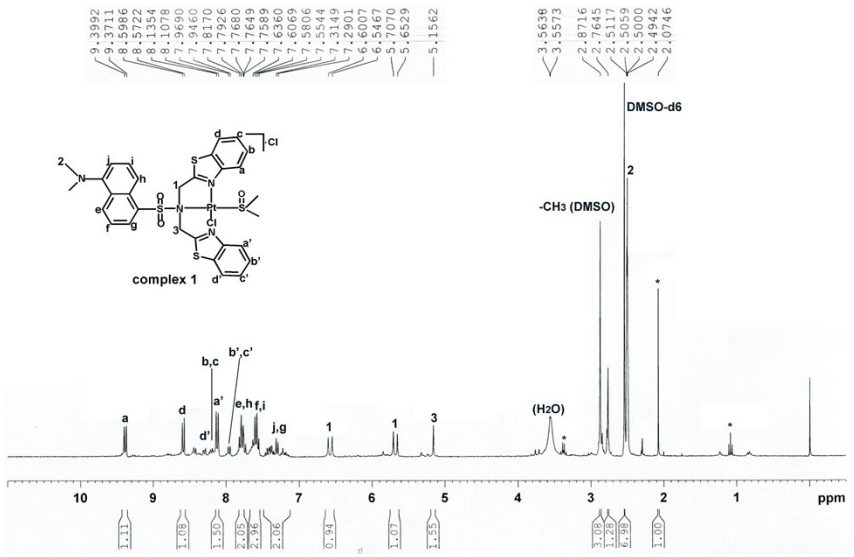

Fig. S4 ^{1}H NMR spectrum of [Pt**L**(DMSO)Cl]Cl (**1**) in DMSO-d^6.

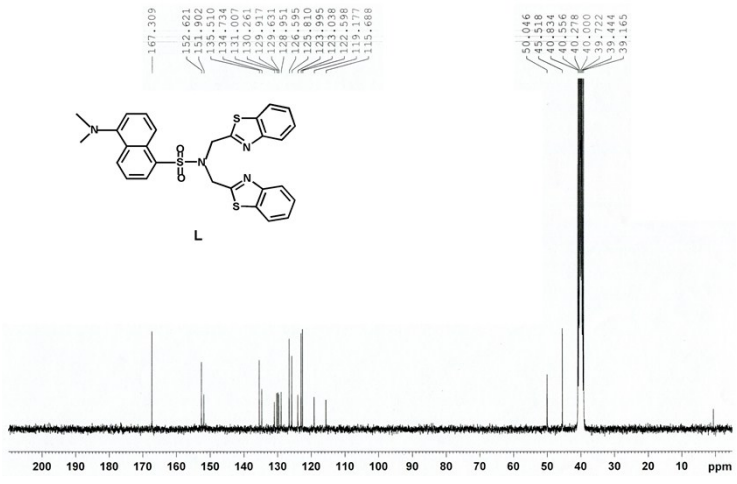

Fig. S5 ^{13}C NMR spectrum of danysl bis(2-benzothiazolylmethyl)amine (**L**) in DMSO-d^6.

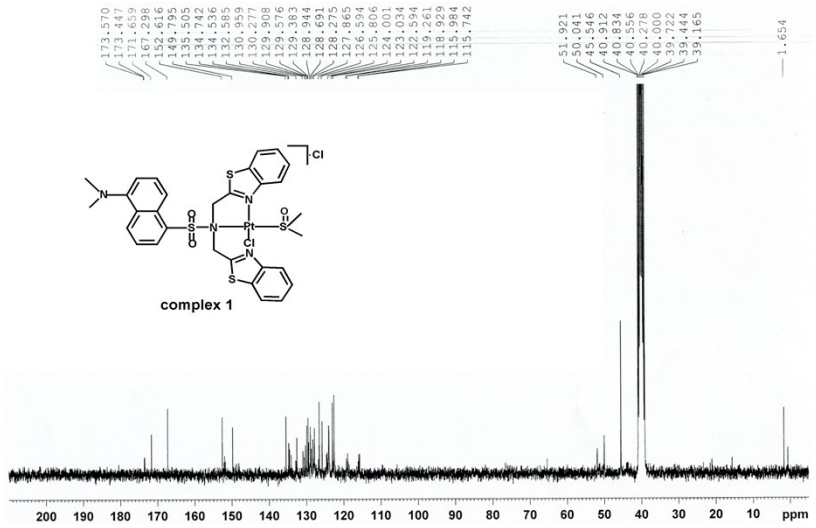

Fig. S6 ^{13}C NMR spectrum of [Pt**L**(DMSO)Cl]Cl (**1**) in DMSO-d^6.

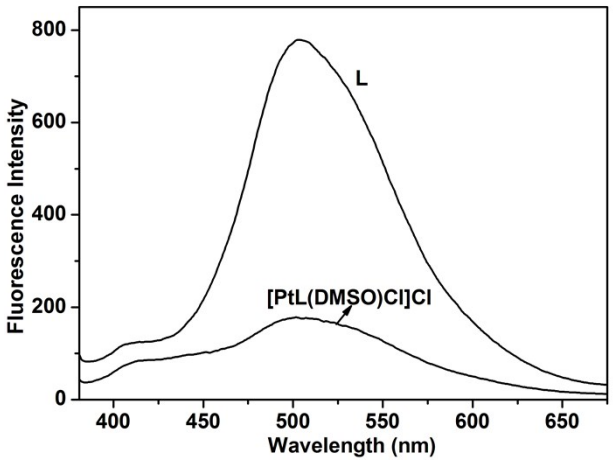

Fig. S7 The fluorescence spectrum of [Pt**L**(DMSO)Cl]Cl (**1**) (30 μM, λ_{ex} = 356 nm) and **L** (30 μM, λ_{ex} = 356 nm) in a Tris-HCl–NaCl buffer containing 10% DMSO (pH 7.4).

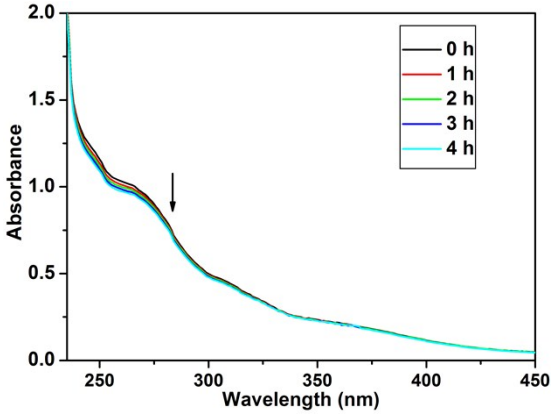

Fig. S8 Time-dependent absorption spectra of complex **1** (40 μM) in the absence and presence of a fixed amount of CT-DNA (r = [DNA]/[complex] = 0.5) at room temperature in pH 7.40.

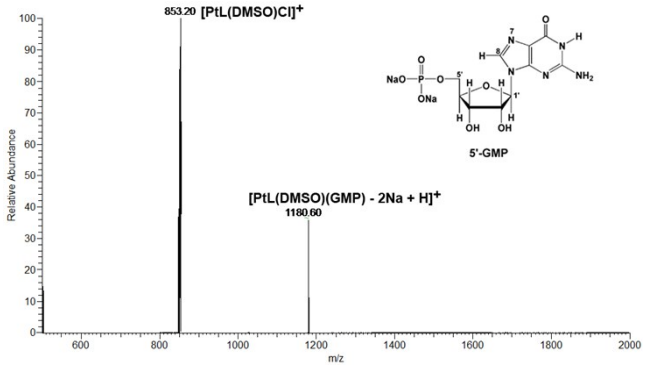

Fig. S9 ESI-MS spectrum (positive mode) of the reaction between complex **1** and 5′-GMP (1:2) recorded in methanol/water (v/v, 1:1) at 37 °C for 24 h. Assignments: 1180.60, [Pt**L**(DMSO)(GMP) – 2Na + H]$^+$ ($C_{40}H_{43}N_9O_{11}S_4PPt$, calcd 1080.15); 853.20, [Pt**L**(DMSO)Cl]$^+$.

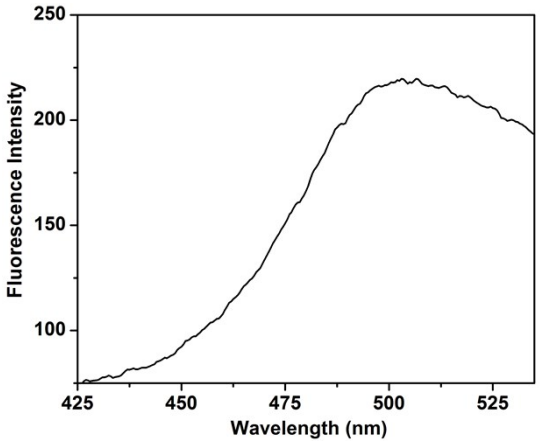

Fig. S10 The fluorescence spectrum of [Pt**L**(DMSO)Cl]Cl (**1**) (30 μM, λ_{ex} = 280 nm) in a Tris-HCl–NaCl buffer containing 10% DMSO (pH 7.4).

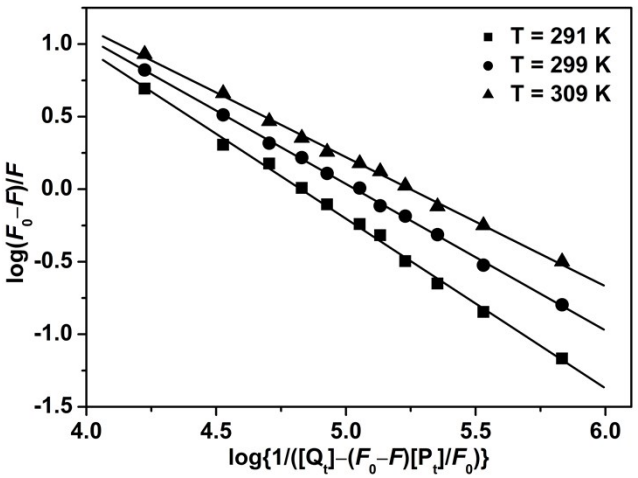

Fig. S11 Plots of $\log[(F_0 - F)/F]$ *versus* $\log\{1/([Q_t] - (F_0 - F)[P_t]/F_0)\}$ at different temperatures for HSA (0.4 μM, pH 7.40) in the presence of complex **1** (λ_{ex} = 280 nm, λ_{em} = 345 nm).