

## Electronic Supplementary Information

# Thermodynamic investigation of interaction between [(η<sup>6</sup>-p-cymene)Ru(benzaldehyde-N<sup>4</sup>-phenylthiosemicarbazone)Cl]Cl anticancer drug and ctDNA: Multispectroscopic and electrochemical studies

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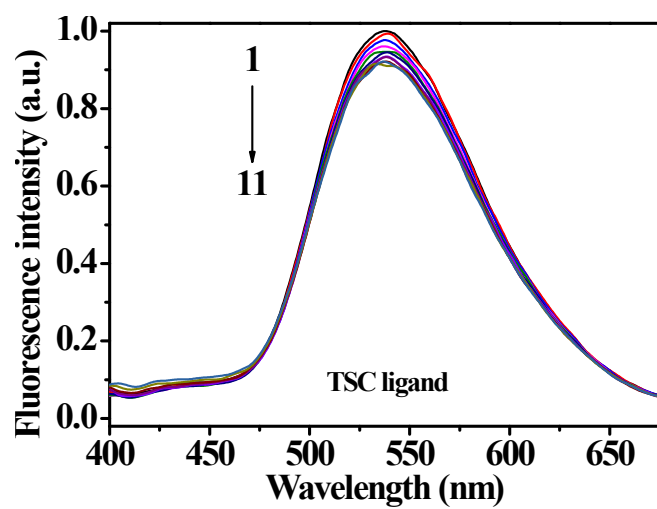
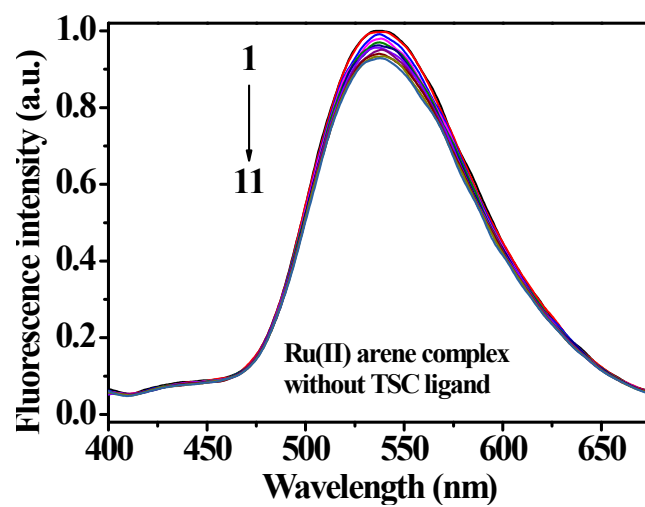
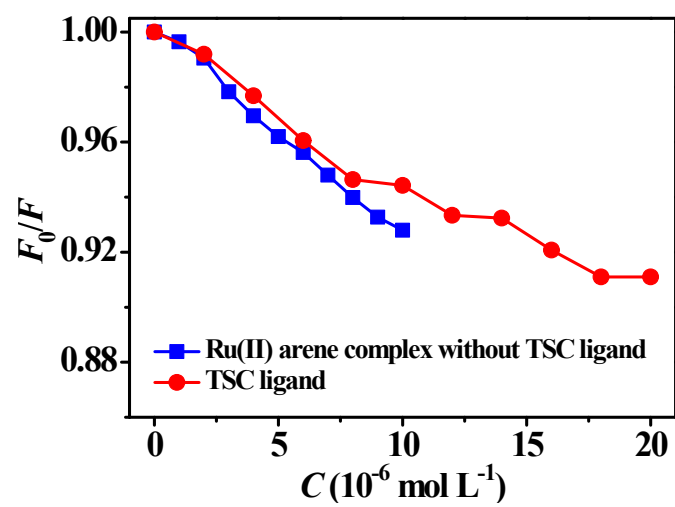


Fig. S1. Fluorescence spectra of ctDNA–BH complex with various concentrations of TSC ligand.  $c(\text{ctDNA}) = 9.4 \times 10^{-5} \text{ mol L}^{-1}$ ;  $c(\text{BH}) = 1.67 \times 10^{-5} \text{ mol L}^{-1}$ ;  $c(\text{TSC ligand})/(10^{-6} \text{ mol L}^{-1})$ , 1–11: 0, 2, 4, 6, 8, 10, 12, 14, 16, 18 and 20.



**Fig. S2.** Fluorescence spectra of ctDNA–BH complex with various concentrations of Ru(II) arene complex without TSC ligand.  $c(\text{ctDNA}) = 9.4 \times 10^{-5} \text{ mol L}^{-1}$ ;  $c(\text{BH}) = 1.67 \times 10^{-5} \text{ mol L}^{-1}$ ;  $c(\text{Ru(II) arene complex without TSC ligand}) / (10^{-6} \text{ mol L}^{-1})$ , 1–11: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10.



**Fig. S3.** Fluorescence quenching effect of various concentrations of Ru(II) arene complex without TSC ligand and TSC ligand.