Electronic Supplementary Material (ESI) for Dalton Transactions.

Supporting Information

Dual inhibition of topoisomerases I and IIα by ruthenium(II) complexes containing asymmetric tridentate ligands

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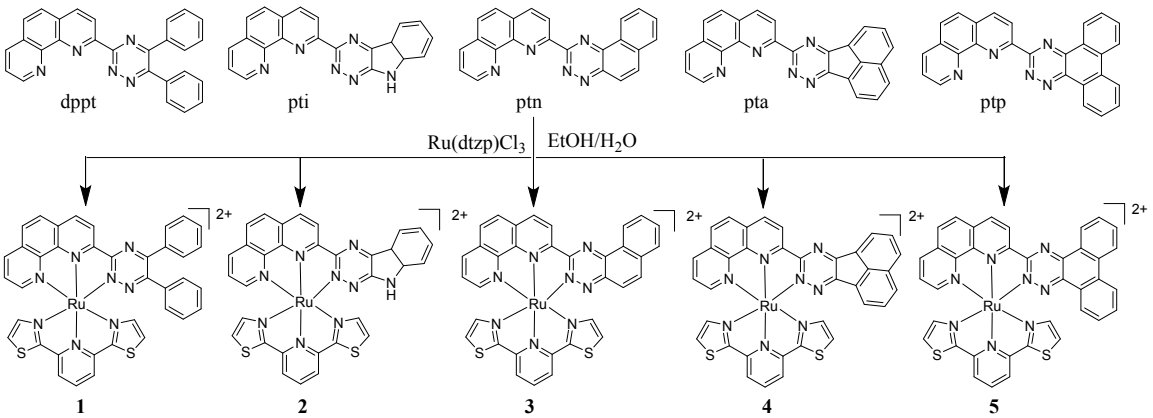

Scheme S1. Synthetic routes of complexes.

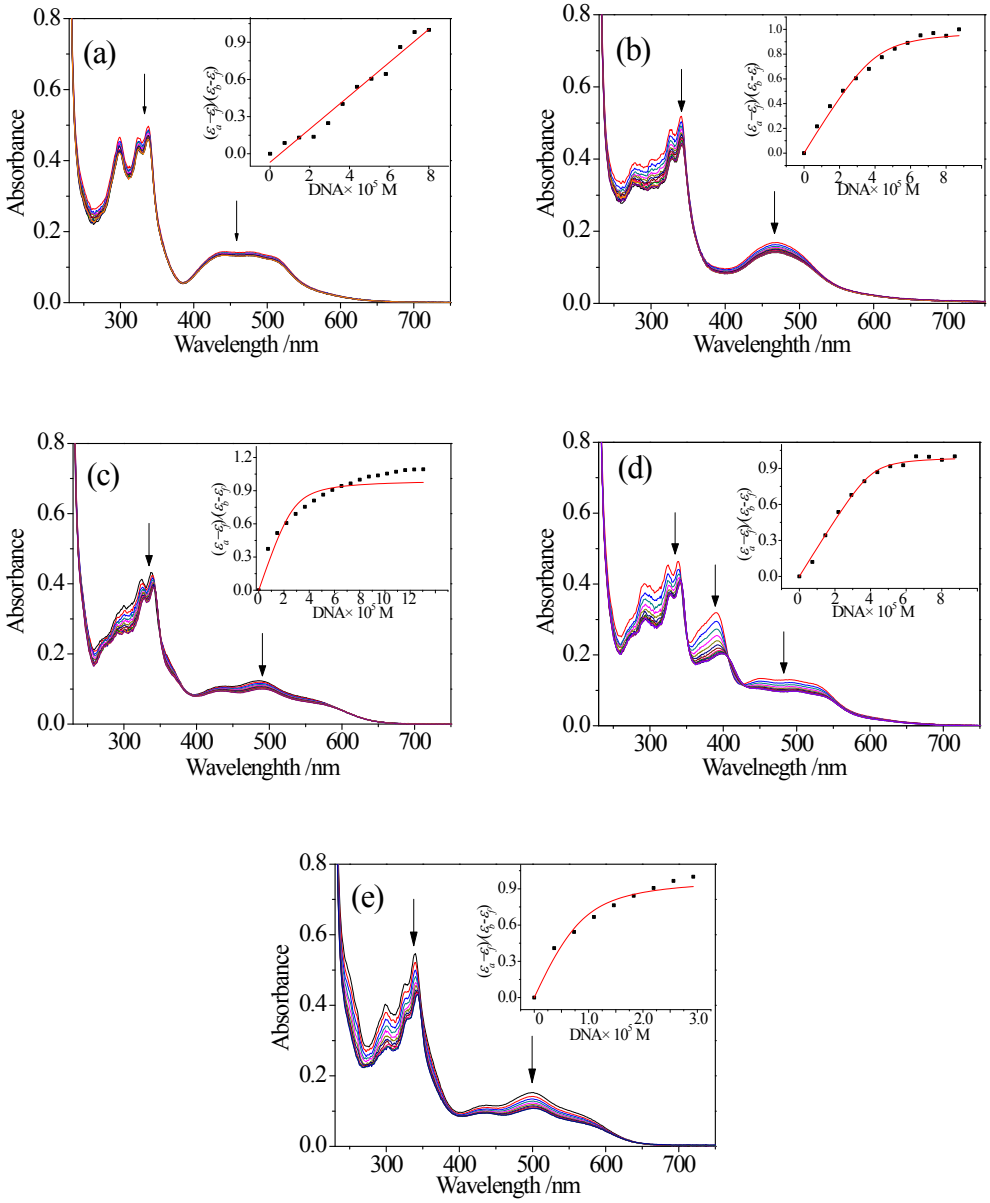

Fig. S1. Absorption spectra of complexes **1** (a), **2** (b), **3** (c), **4** (d) and **5** (e) in Tris-HCl buffer upon addition of CT-DNA ([Ru] = 10 μM, [DNA] = 0-200 μM). Arrows indicate the change in absorbance upon increasing the DNA concentration.

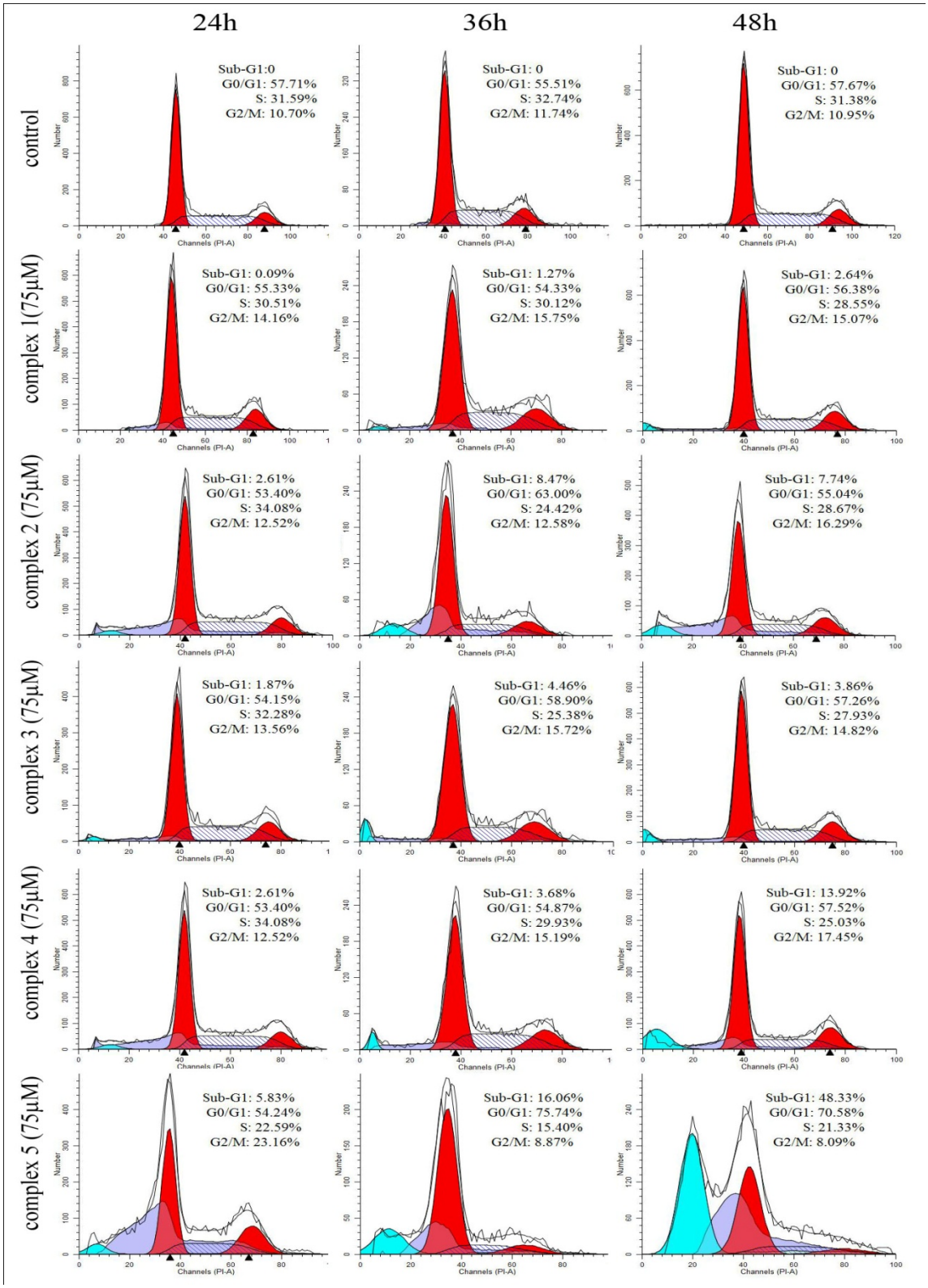

Fig. S2. The effects of complexes **1-5** on cell cycle progression in HeLa cells. Cells were treated with 75 μM of Ru(II) complexes for 24 h, 36 h, 48 h, respectively.

Table S1. DNA-binding constants and hypochromism of the Ru(II) complexes **1**-**5**.

complex	*H*%	K_b
1	7.38	$(1.70\pm0.10)\times10^4$
2	16.49	$(1.50\pm0.53)\times10^5$
3	24.43	$(1.03\pm0.49)\times10^6$
4	25.62	$(4.30\pm1.33)\times10^6$
5	28.57	$(5.70\pm2.71)\times10^6$

Table S2. Ruthenium concentrations determined in HeLa cells after 24 h exposure to complexes **1**-**5** by ICP-MS.[a]

	Ru (pg/cell)		
complex	nucleus	cytoplasm	mitochondria
1	1.972	1.032	0.983
2	6.851	1.865	3.113
3	3.798	2.576	1.893
4	3.831	2.162	1.405
5	6.233	1.673	2.764

[a] The results are the means of three independent samples.