Interaction of Ru(II) polypyridyl complexes with DNA mismatches and Abasic Sites

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Hydrodynamic studies:
Viscometric experiments were carried out using an Ostwald type viscometer with 5mL capacity in a thermostated water bath maintained at 25°C. The flow rates of the buffer (10mM), DNA (200µM) and DNA in the presence of varying concentrations of complexes (10-100µM) were measured with a manually operated timer. The experiments were carried out in triplicate with the error limit of ±0.2 sec. The relative viscosity was calculated according to the equation,
\[ \eta = \frac{(t-t_0)}{t_0} \]
where \( t_0 \) is the flow time for the buffer and \( t \) is the observed flow time for DNA, in the presence and absence of the complexes. A plot of \( (\eta/\eta_0)^{1/3} \) Vs 1/R, \( \{R = [\text{DNA}]/[\text{complex}]\} \) was constructed from viscosity measurements.
Fig. S1 $^1$H NMR spectrum of Furphen (L1) in d$_6$-dmso
Fig. S2 Integrated emission intensities of Ru complexes (a) complex 1 and (b) complex 2 in the presence of match, mismatch and abasic sites. [Ru]: 1 µM; [Oligonucleotide]: 0-2 µM. Error limit: ±5 %
**Fig. S3** Plot of integrated emission intensity of ethidium bromide (EtBr) with GC and CC mismatch
Fig. S4 Hydrodynamic studies of CT DNA in the presence of complexes 1 (black) and 2 (red). [DNA]: 100 µM; [Ru]: 0-100 µM