Electronic Supplementary Material (ESI) for RSC Advances.

The biological *in vitro* effect and selectivity shown by a Co^{II} complex of 2-(2-hydroxyphenylazo)-indole-3′-acetic acid on three distinctly different cancer cells

by

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Fig 1S:

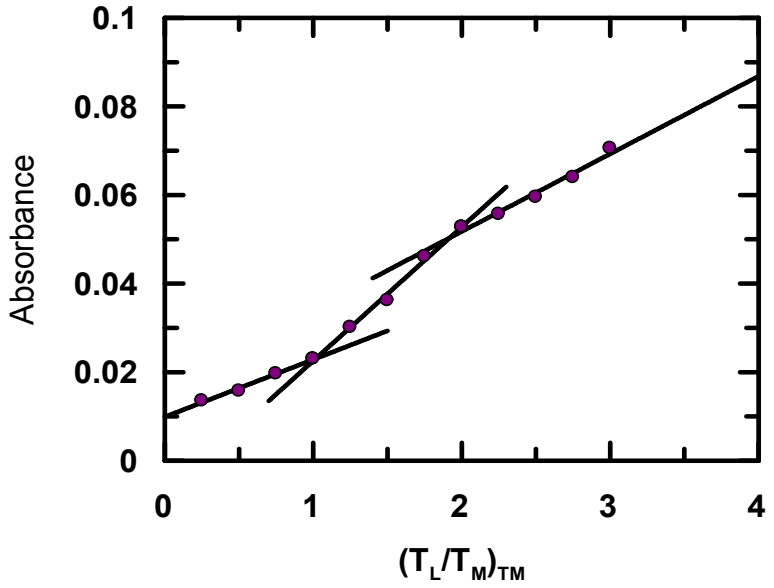

Fig. 1S: A typical plot for the determination of stoichiometry (in solution) by the mole ratio method by following the change in absorbance at 510 nm using a constant concentration of Co^{II} (= 3×10^{-3} M) and varying amounts of HPIA; [$NaNO_3$] = 0.1 M, Temp = 298K.

Fig 2S:

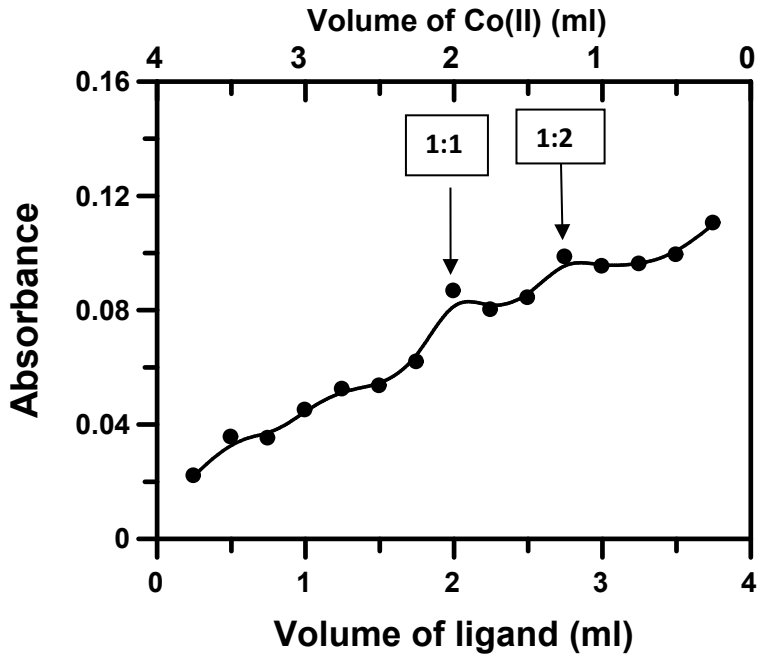

Fig. 2S: A typical plot for determination of stoichiometry by Job's method of continuous variation at 510 nm against varying ratios of Co^{II} and HPIA; strength of stock solutions of Co^{II} = 3×10^{-3} M and [HPIA] = 3×10^{-3} M; [$NaNO_3$] = 0.1 M, Temp = 298K.

Fig 3S:

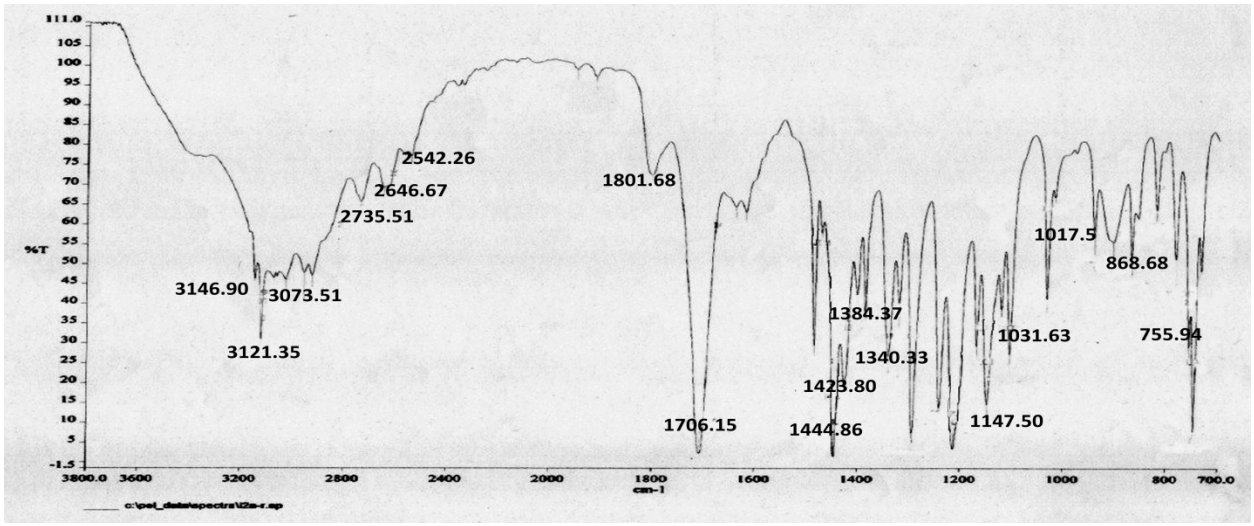

Fig 3S: FTIR spectrum of HPIA

Fig 4S:

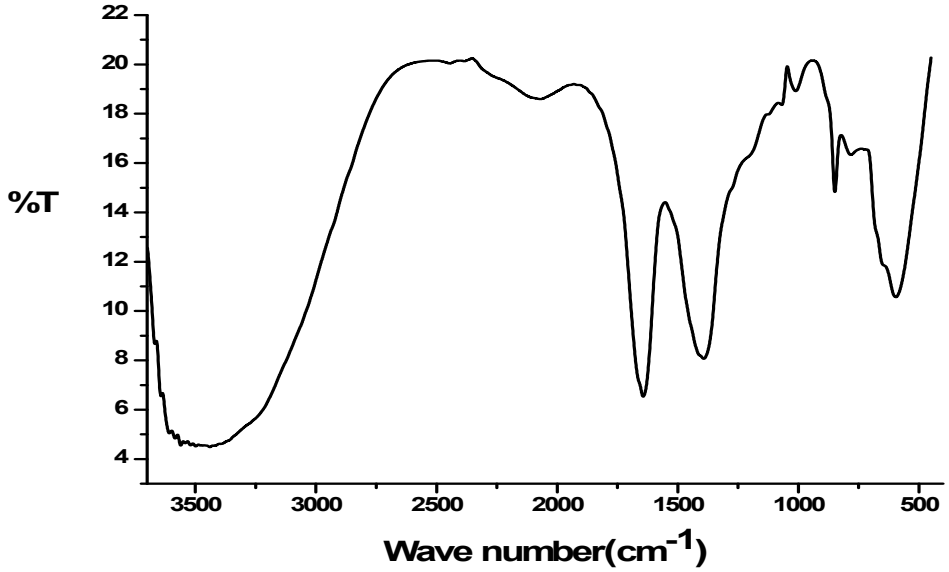

Fig 4S: FTIR spectrum of the Co^{II} complex of HPIA

Fig 5S:

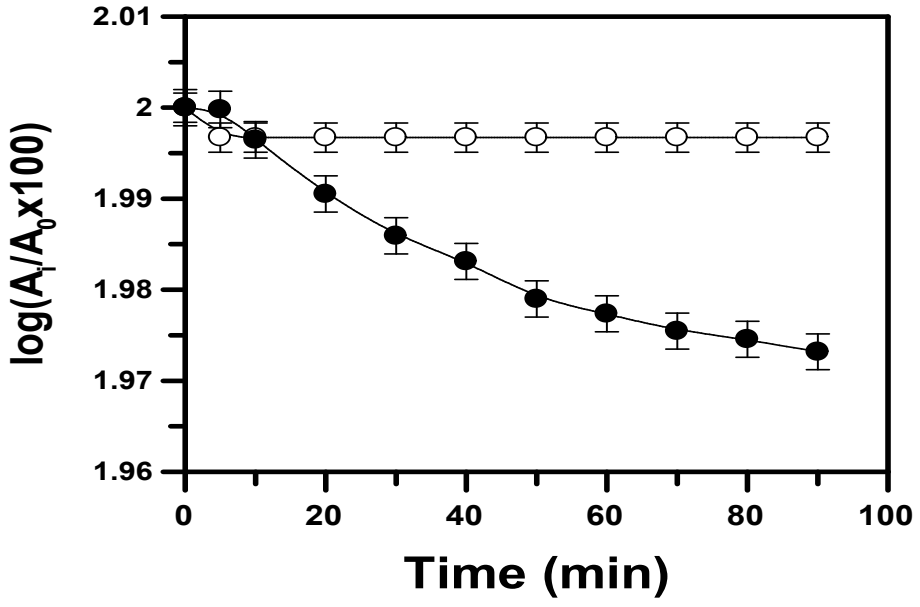

Fig. 5S: A comparison of the rate of reduction of HPIA (●) and $Co^{II}(HPIA)_2$ (○) in the presence of 275 µM NADPH and azo-reductase present in the cell extract obtained from *Staphylococcus aureus*.

Fig. 6S:

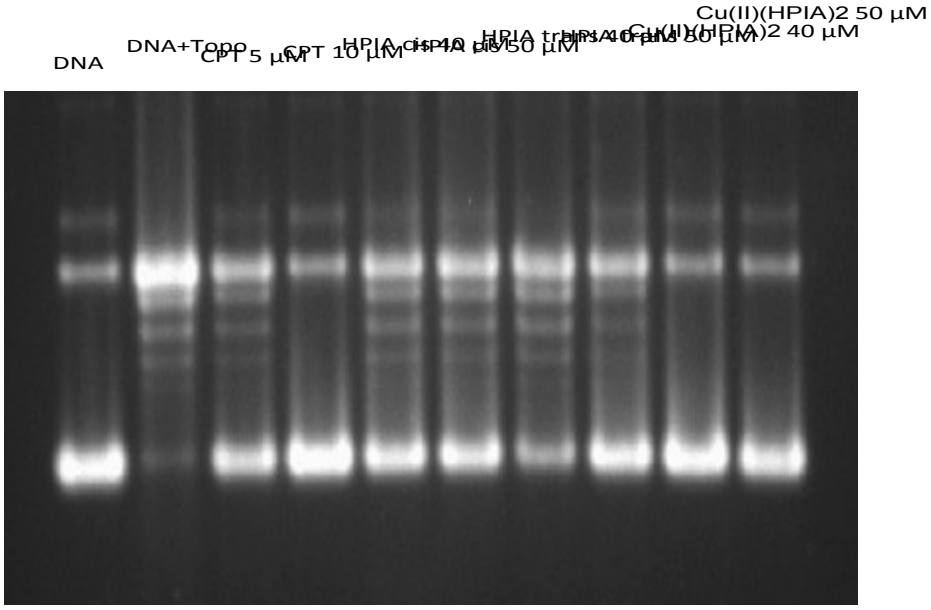

Fig. 6S: DNA topoisomerase I relaxation assay. Lane 1 is 100 fmol supercoiled pBS (SK^+) DNA, lane 2 is 100 fmol supercoiled pBS (SK^+) DNA with 50 fmol topoisomerase I enzyme, lane 3 is same as lane 2 but with 5 μM CPT, lane 4 is same as lane 2 but with 10 μM CPT, lane 5 is same as lane 2 but with 40 μM *cis*-HPIA, lane 6 is same as lane 2 but with 50 μM *cis*-HPIA, lane 7 is same as lane 2 but with 40 μM *trans*-HPIA, lane 8 is same as lane 2 but with 50 μM *trans*-HPIA, lane 9 is same as lane 2 but with 40 μM $Cu(HPIA)_2(H_2O)_2$, lane 10 is same as lane 2 but with 50 μM $Cu^{II}(HPIA)_2(H_2O)_2$. All the reactions were incubated at 37°C for 30 minutes and analysed by agarose gel electrophoresis.