

## Supplementary material for

### **Nickel and cobalt complexes of benzoic acid (2-hydroxy-benzylidene)- hydrazide ligand: Synthesis, structure and comparative in vitro evaluations of biological perspectives**

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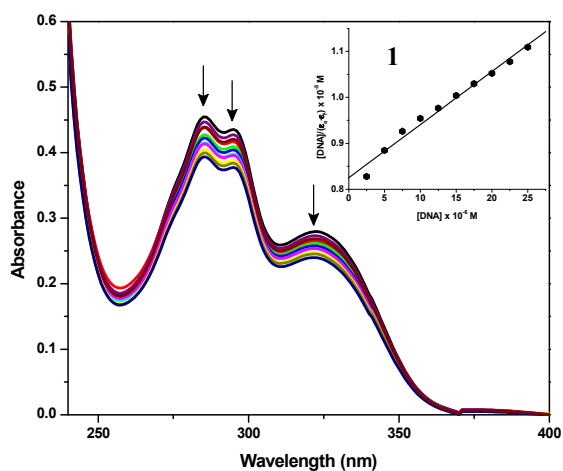


Fig. S1 Electronic absorption spectra of ligand **1** (25 μM) in the absence and presence of increasing amounts of CT DNA (2.5, 5.0, 7.5, 10.0, 12.5, 15.0, 17.5 and 20.0, 22.5 and 25 μM). Arrows show the changes in absorbance with respect to an increase in the DNA concentration. Inset: Plot of [DNA] vs [DNA]/(ε<sub>a</sub> - ε<sub>f</sub>).

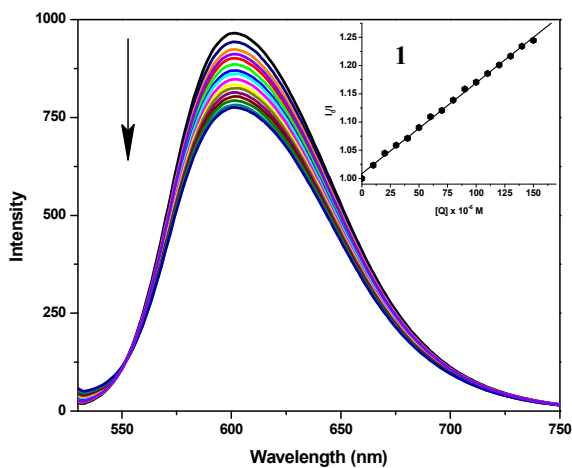


Fig. S2 Emission spectra of DNA-EB in the presence of 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140 and 150 μM of ligand **1**. Arrow indicates the change in the emission intensity as a function of ligand concentration. Inset: Stern-Volmer plot of the fluorescence titration data corresponding to ligand **1**.

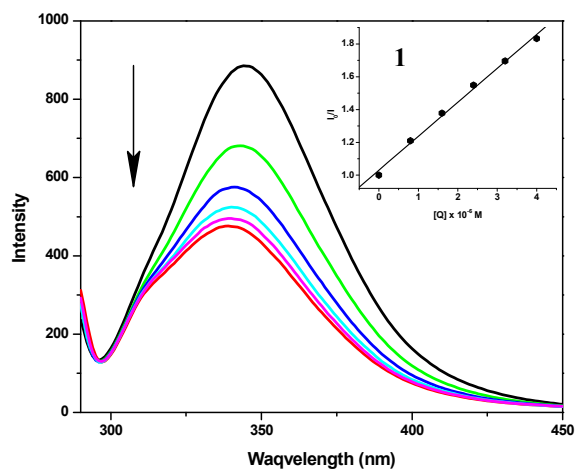


Fig. S3 Emission spectrum of BSA ( $1 \times 10^{-6}$  M;  $\lambda_{\text{exi}} = 280$  nm;  $\lambda_{\text{emi}} = 345$  nm) as a function of concentration of the ligand **1** (0, 0.8, 1.6, 2.4, 3.2 and  $4 \times 10^{-6}$  M). Arrow indicates the effect of ligand **1** on the fluorescence emission of BSA.

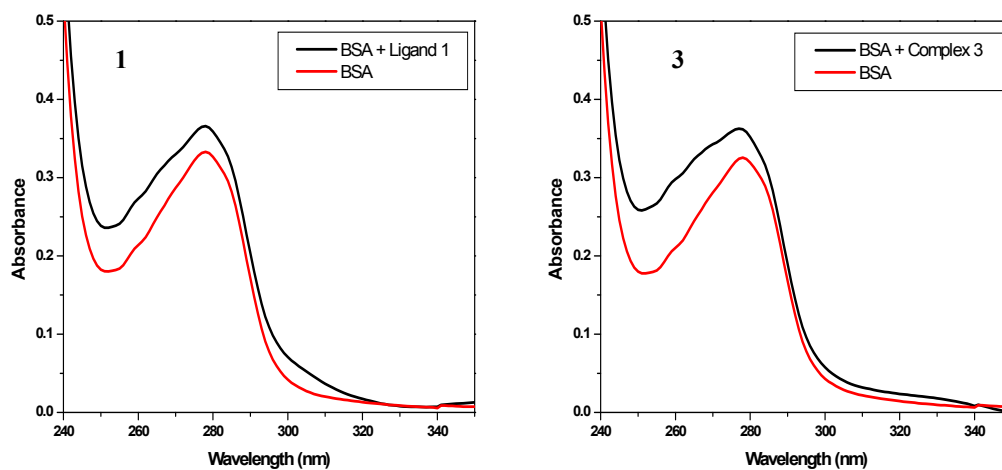


Fig. S4 The absorption spectra of respective BSA ( $1 \times 10^{-5}$  M), BSA-ligand **1** and BSA-complex **3** (BSA =  $1 \times 10^{-5}$  M and ligand **1** / complex **3** =  $1 \times 10^{-6}$  M).

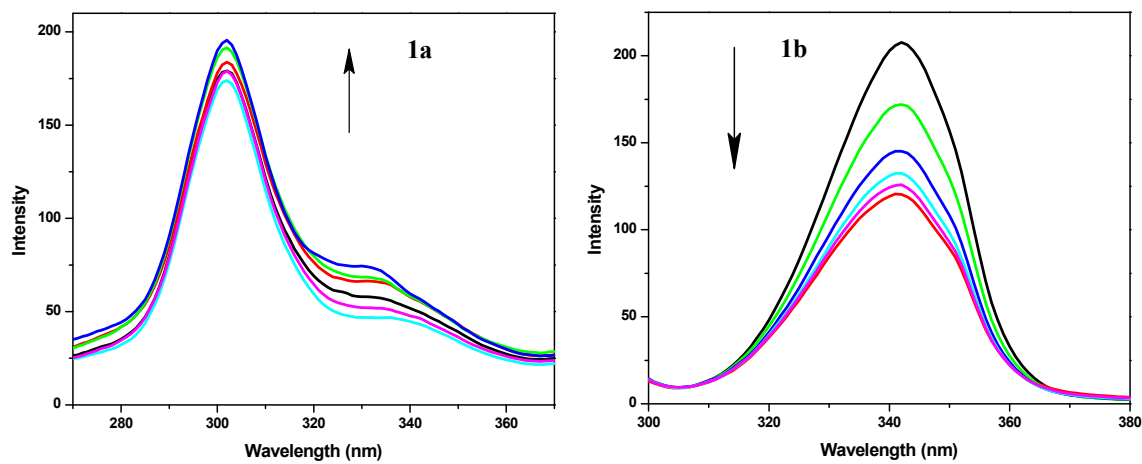


Fig. S5 Synchronous spectra of BSA ( $1 \times 10^{-6}$  M) as a function of concentration of the ligand **1** (0, 0.8, 1.6, 2.4, 3.2 and  $4 \times 10^{-6}$  M) with wavelength difference of  $\Delta\lambda = 15$  nm (1a) and  $\Delta\lambda = 60$  nm (1b). Arrow indicates the change in emission intensity w.r.t various concentration of ligand **1**.