

Supplementary Information for Online Publication

Anticancer Metallodrugs of Glutamic Acid Sulphonamides: *In Silico*, DNA Binding, Hemolysis and Anticancer Studies

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Figure S1: UV-Vis. spectra of NiL1 to RuL3 in PBS at 7.4 pH. The solid red and dashed black lines indicate the spectra of fresh solutions and the spectra of solutions after 24 h.

Figure S2: Absorption spectra of NiL1 (1.6×10^{-4} M) in the absence (red dashed line) and presence (solid lines) of increasing DNA concentrations; 0.5×10^{-4} M (blue), 0.8×10^{-4} M (green), 1.1×10^{-4} M (red) and 1.4×10^{-4} M (black). Arrow indicates the hyperchromic shifts on increasing DNA concentrations ($0.5 - 1.4 \times 10^{-4}$ M).

Figure S3: Absorption spectra of RuL1 (1.6×10^{-4} M) in the absence (red dashed line) and presence (solid lines) of increasing DNA concentrations; 0.5×10^{-4} M (blue), 0.8×10^{-4} M (green), 1.1×10^{-4} M (red) and 1.4×10^{-4} M (black). Arrow indicates the hyperchromic shifts on increasing DNA concentrations ($0.5 - 1.4 \times 10^{-4}$ M).

Figure S4: Absorption spectra of L2 (1.6×10^{-4} M) in the absence (red dashed line) and presence (solid lines) of increasing DNA concentrations; 0.5×10^{-4} M (blue), 0.8×10^{-4} M (green), 1.1×10^{-4} M (red) and 1.4×10^{-4} M (black). Arrow indicates the hyperchromic shifts on increasing DNA concentrations ($0.5 - 1.4 \times 10^{-4}$ M).

Figure S5: Absorption spectra of CuL2 (1.6×10^{-4} M) in the absence (red dashed line) and presence (solid lines) of increasing DNA concentrations; 0.5×10^{-4} M (blue), 0.8×10^{-4} M (green), 1.1×10^{-4} M (red) and 1.4×10^{-4} M (black). Arrow indicates the hyperchromic shifts on increasing DNA concentrations ($0.5 - 1.4 \times 10^{-4}$ M).

Figure S6: Absorption spectra of NiL2 (1.6×10^{-4} M) in the absence (red dashed line) and presence (solid lines) of increasing DNA concentrations; 0.5×10^{-4} M (blue), 0.8×10^{-4} M (green), 1.1×10^{-4} M (red) and 1.4×10^{-4} M (black). Arrow indicates the hyperchromic shifts on increasing DNA concentrations ($0.5 - 1.4 \times 10^{-4}$ M).

Figure S7: Absorption spectra of RuL2 (1.6×10^{-4} M) in the absence (red dashed line) and presence (solid lines) of increasing DNA concentrations; 0.5×10^{-4} M (blue), 0.8×10^{-4} M (green), 1.1×10^{-4} M (red) and 1.4×10^{-4} M (black). Arrow indicates the hyperchromic shifts on increasing DNA concentrations ($0.5 - 1.4 \times 10^{-4}$ M).

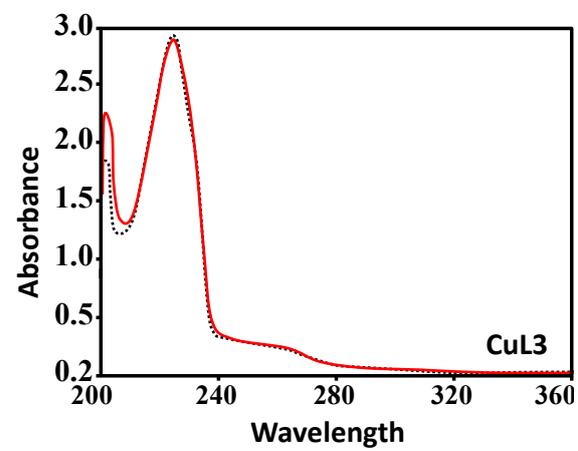
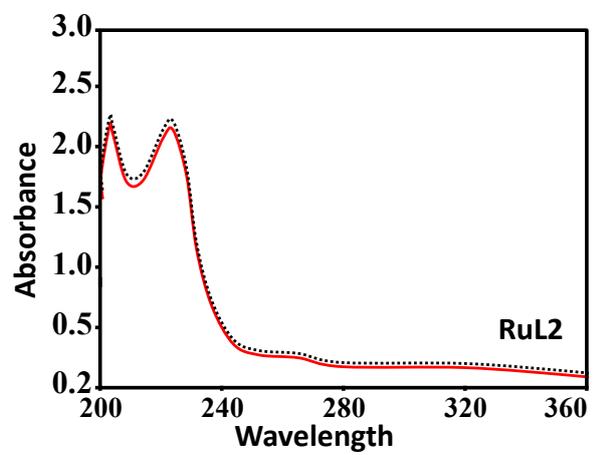
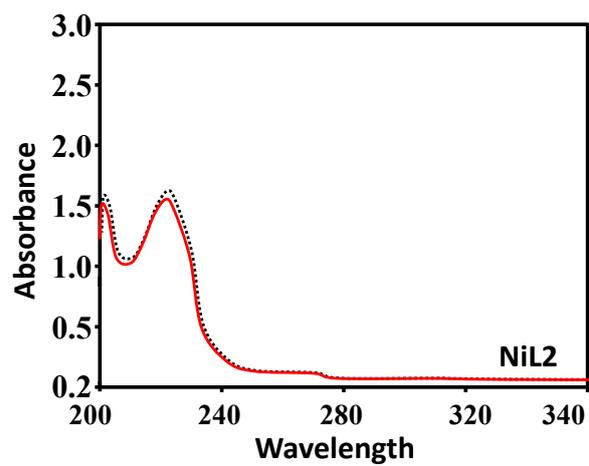
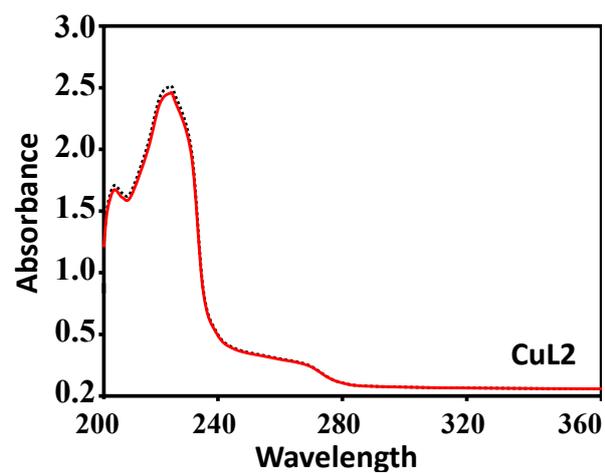
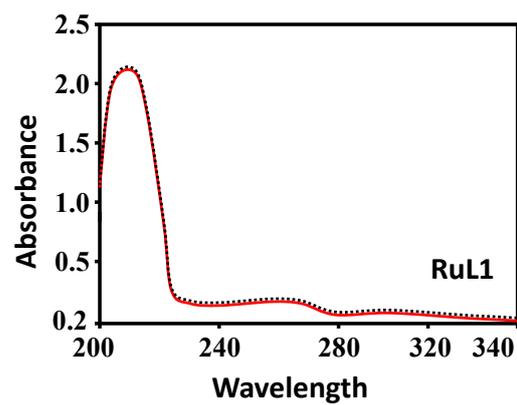
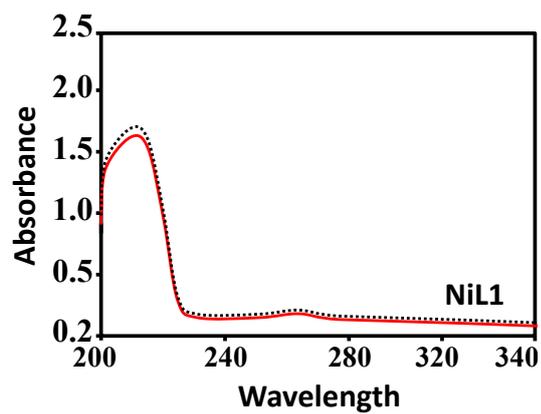
Figure S8: Absorption spectra of L3 (1.6×10^{-4} M) in the absence (red dashed line) and presence (solid lines) of increasing DNA concentrations; 0.5×10^{-4} M (blue), 0.8×10^{-4} M (green), 1.1×10^{-4} M (red) and 1.4×10^{-4} M (black). Arrow indicates the hyperchromic shifts on increasing DNA concentrations ($0.5 - 1.4 \times 10^{-4}$ M).

Figure S9: Absorption spectra of CuL3 (1.6×10^{-4} M) in the absence (red dashed line) and presence (solid lines) of increasing DNA concentrations; 0.5×10^{-4} M (blue), 0.8×10^{-4} M (green), 1.1×10^{-4} M (red) and 1.4×10^{-4} M (black). Arrow indicates the hyperchromic shifts on increasing DNA concentrations ($0.5 - 1.4 \times 10^{-4}$ M).

Figure S10: Absorption spectra of NiL3 (1.6×10^{-4} M) in the absence (red dashed line) and presence (solid lines) of increasing DNA concentrations; 0.5×10^{-4} M (blue), 0.8×10^{-4} M (green), 1.1×10^{-4} M (red) and 1.4×10^{-4} M (black). Arrow indicates the hyperchromic shifts on increasing DNA concentrations ($0.5 - 1.4 \times 10^{-4}$ M).

Figure S11: Absorption spectra of RuL3 (1.6×10^{-4} M) in the absence (red dashed line) and presence (solid lines) of increasing DNA concentrations; 0.5×10^{-4} M (blue), 0.8×10^{-4} M (green),

1.1×10^{-4} M (red) and 1.4×10^{-4} M (black). Arrow indicates the hyperchromic shifts on increasing DNA concentrations ($0.5 - 1.4 \times 10^{-4}$ M).



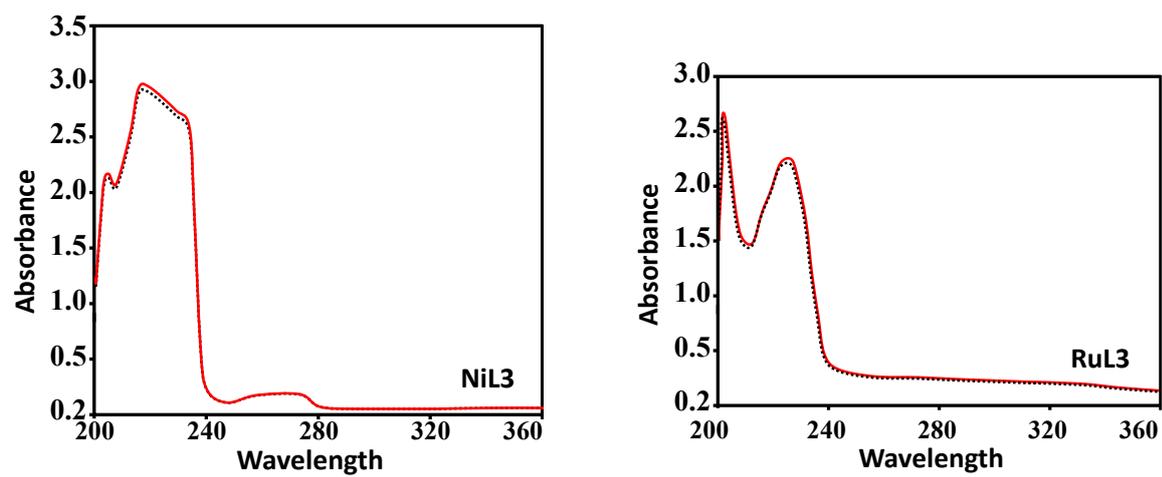


Figure S1

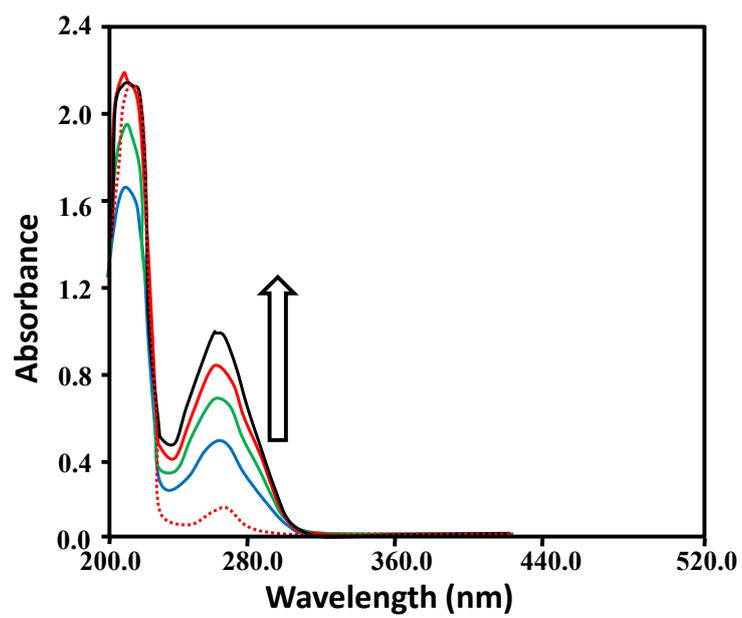


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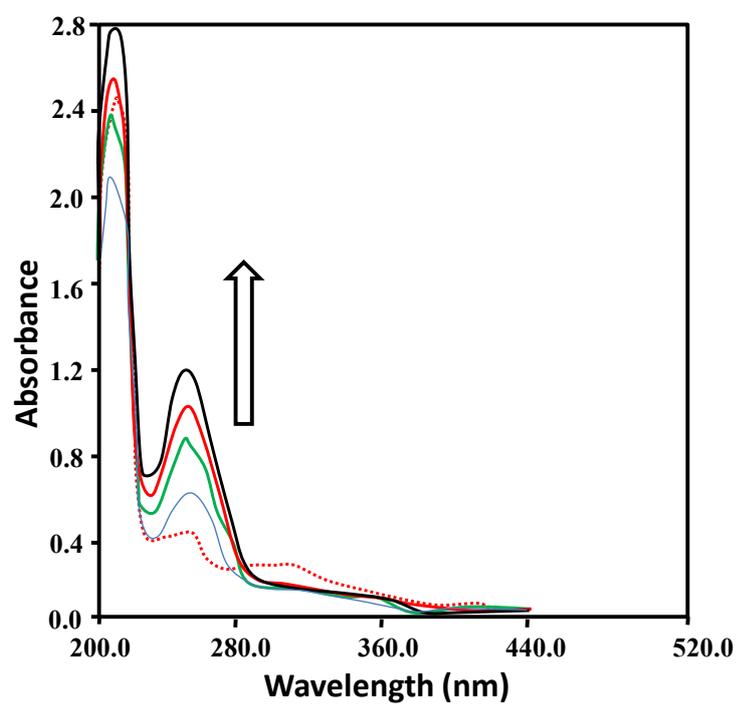


Figure S3

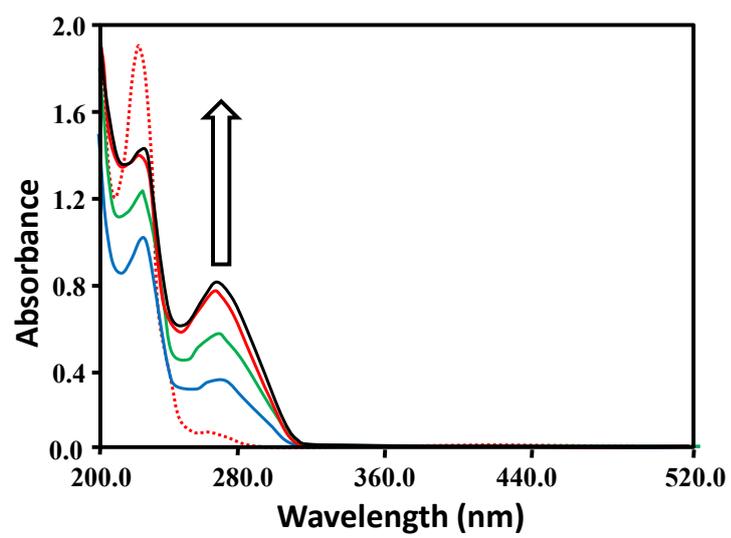


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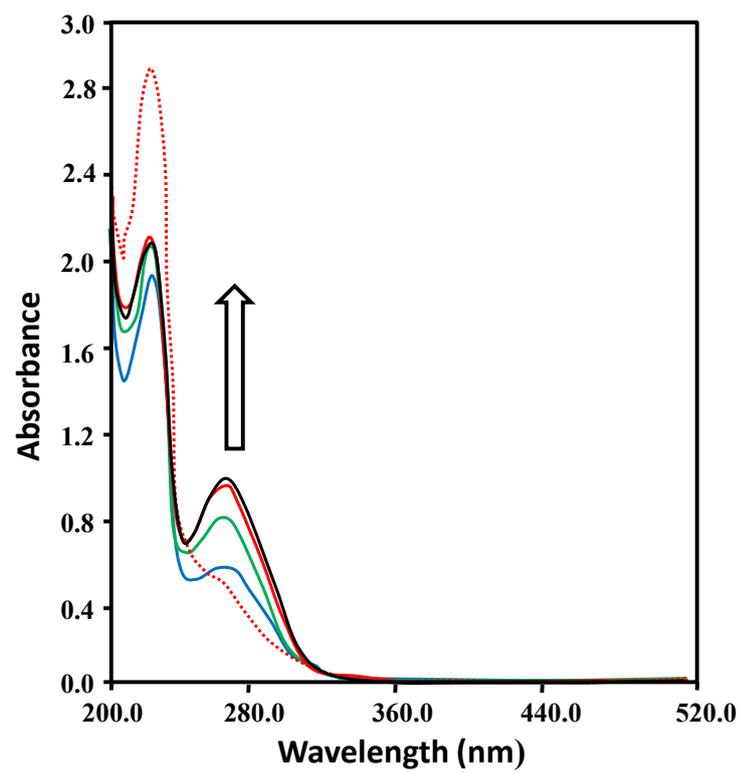


Figure S5

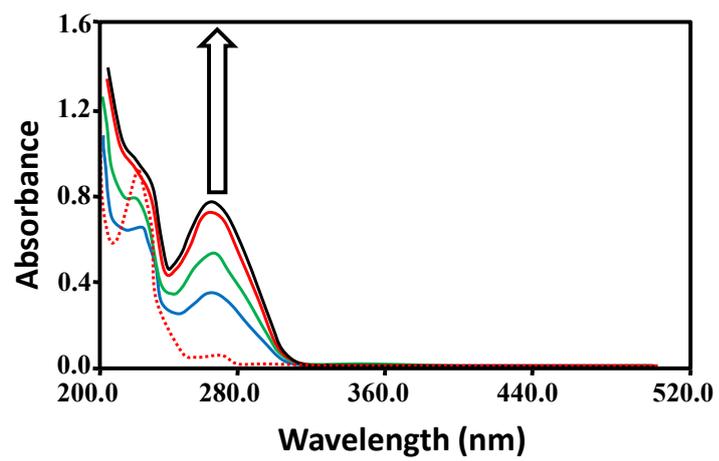


Figure S6

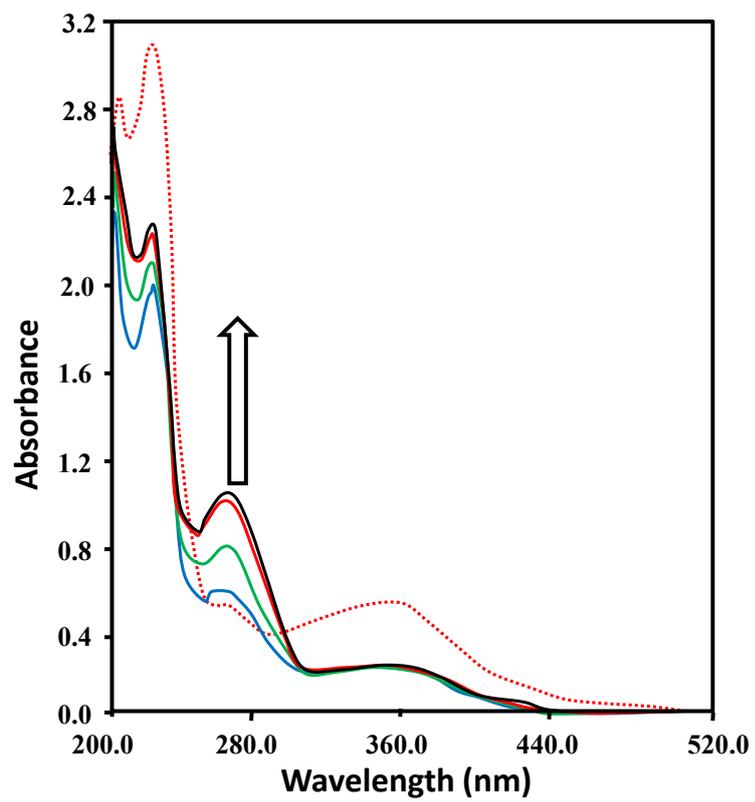


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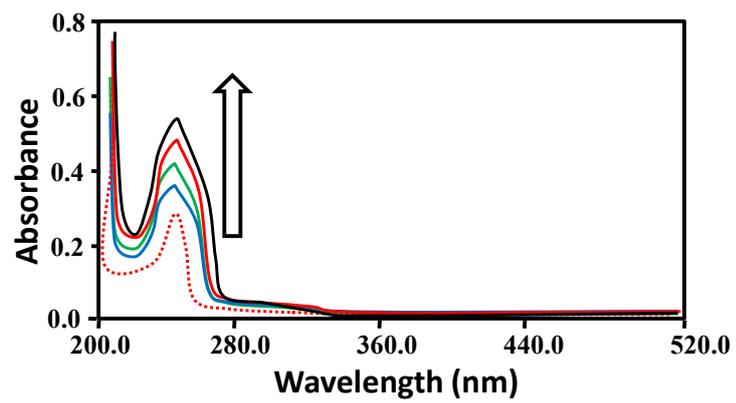


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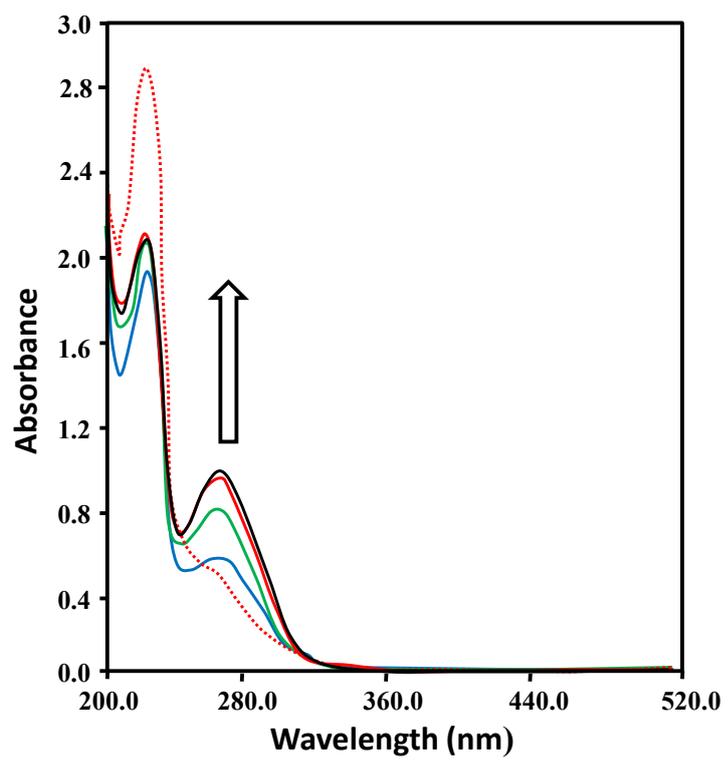


Figure S9

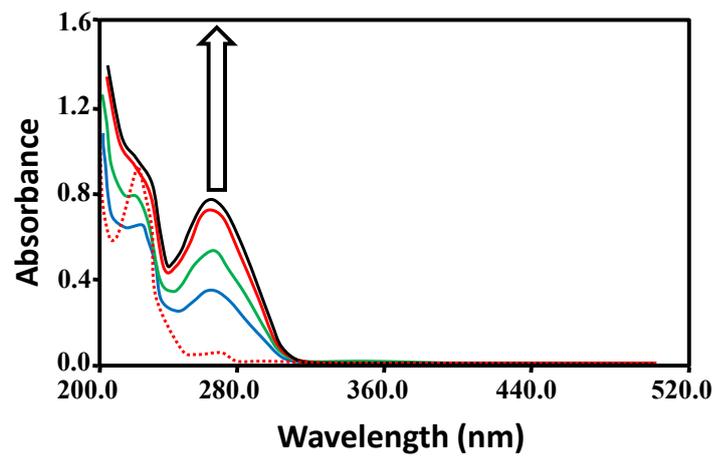


Figure S10

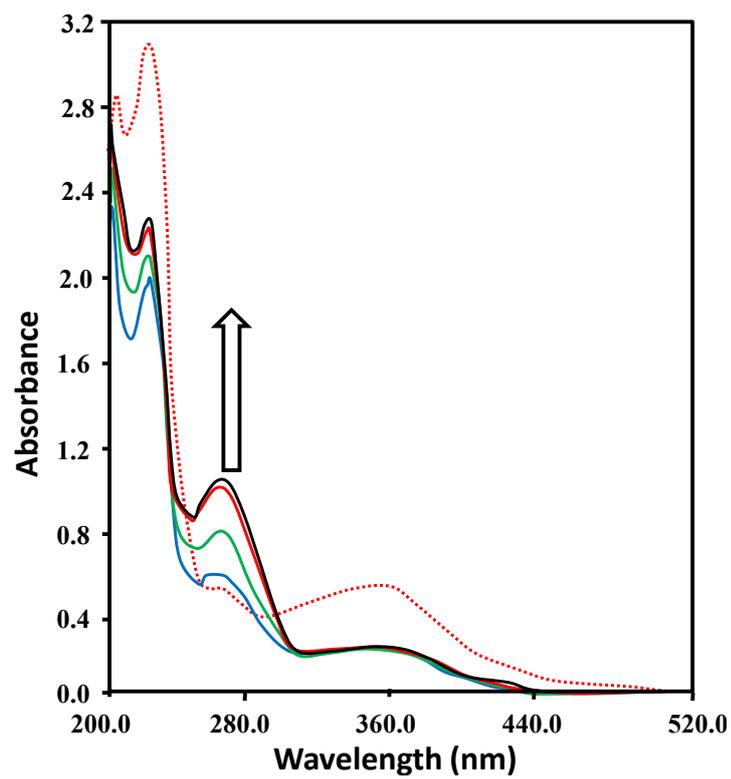


Figure S11

Abbreviations:

DNA: deoxyribose nucleic acid

PBS: Phosphate buffered saline

UV-Vis: Ultraviolet Visible