Electronic Supplementary Information

Probing the binding of two sugar bearing anticancer agents aristololactam-β-D-glucoside and daunomycin to double stranded RNA polynucleotides: A combined spectroscopic and calorimetric study

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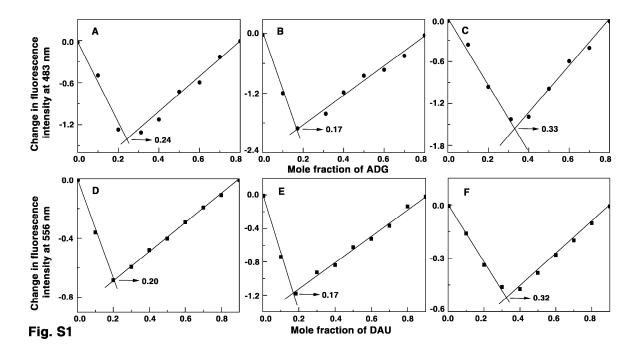


Figure S1: Job plot for the binding of (A) ADG with poly(A).poly(U), (B) ADG with poly(I).poly(C), (C) ADG with poly(C).poly(G), (D) DAU with poly(A).poly(U), (E) DAU with poly(I).poly(C) and (F) DAU with poly(C).poly(G).

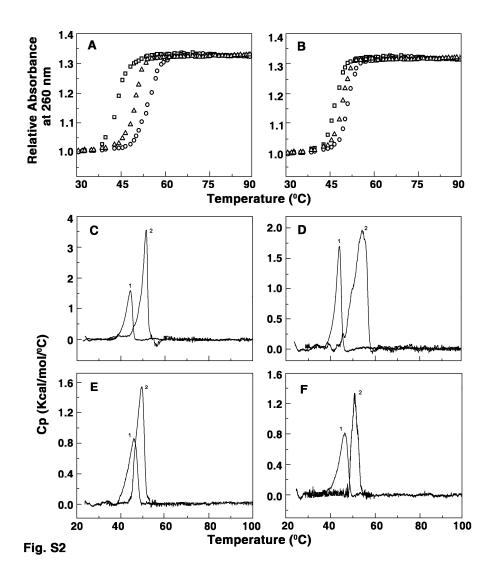


Figure S2. Thermal melting profiles of (A) poly(A).poly(U)-drug complex and (B) poly(I).poly(C)-drug complexes. Symbols (square), (circle) and (triangle) represent free RNA, DAU-RNA complex and ADG-RNA complex, respectively. DSC thermogram of poly(A).poly(U) complex with (C) ADG and (D) DAU. DSC thermogram of poly(I).poly(C) complex with (E) ADG and (F) DAU, respectively. Curve 1 and curve 2 in the figures represent the DSC thermogram of free and complexed RNA, respectively.

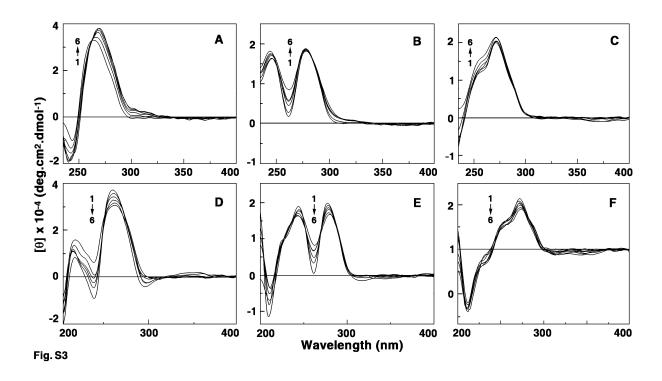


Figure S3: Circular dichroic spectral changes of 50 μM of (A) poly(A).poly(U), treated with 0, 10, 20, 30,40,50 μM ADG, (B) poly(I).poly(C) treated with 0, 10, 20, 30, 40, 50 μM ADG, (C) poly(C).poly(G) treated with 0, 10, 20, 30, 40, 50 μM ADG, (D) poly(A).poly(U) treated with 0, 10, 20, 30, 40, 50 μM DAU, (E) poly(I).poly(C) treated with 0, 10, 20, 30,40,50 μM DAU and (F) poly(C).poly(G) treated with 0, 10, 20, 30, 40, 50 μM DAU represented by curves (1–6). The expressed molar ellipticity (θ) is based on RNA concentrations.