



Fig. 1S: van't Hoff analysis of the melting profiles for the three-way junction in Figure 1A (squares) and the 50-mer duplex in Fig. 1B (circles). The data were fit over the range of 20-90% conversion with the assumptions of no change in the heat capacity for the reactions and a two-state conversion. Linear fits yield $\Delta H^\circ = 262 \pm 24$ kcal/mole and $\Delta S^\circ = 715 \pm 68$ cal/(mole K) at 79 °C for the three-way junction and $\Delta H^\circ = 317 \pm 13$ kcal/mole and $\Delta S^\circ = 865 \pm 35$ cal/(mole K) at 82 °C for the duplex.