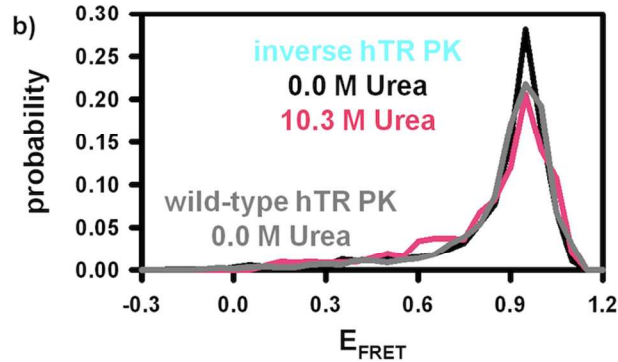
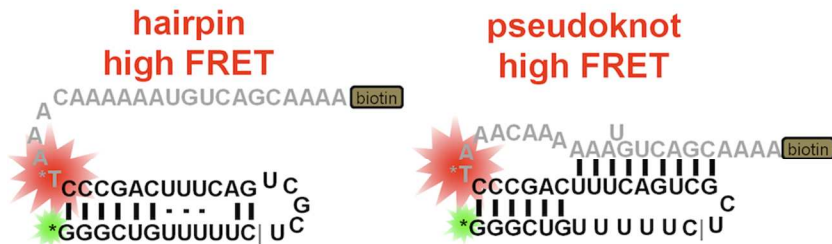


Single Molecule FRET Studies of the Human Telomerase RNA Pseudoknot: Temperature/Urea Dependent Folding Kinetics and Thermodynamics

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a) **alternate hTR PK**



Supplemental Figure 1. a) Details of the alternative labeling scheme for the wild-type human telomerase RNA pseudoknot secondary structure. The minimal pseudoknot motif is in a partially unfolded (hairpin) conformation and a folded (pseudoknot) conformation. The green (Cy3) and red (Cy5) stars indicate the location of the two fluorophores, while the size of the stars represents the FRET efficiency between the two dyes. The grey vertical bar represents the location of the ligation site. See Materials and Methods for details b) Freely diffusing FRET histograms of alternate wild-type human telomerase RNA pseudoknot. The nearly identical FRET values at high and low urea concentrations confirm that: (i) the P2 region of the pseudoknot remains intact under all experimental conditions and (ii) the dynamics associated with the conventional constructs results from formation/disruption of the P3 region of the pseudoknot.