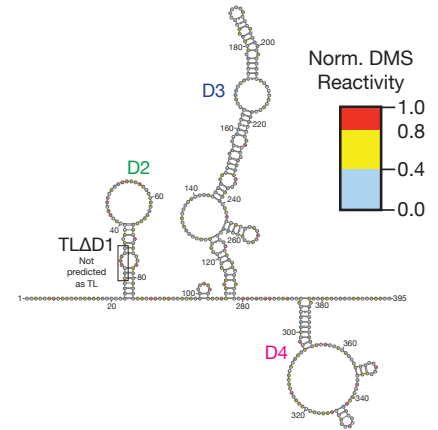
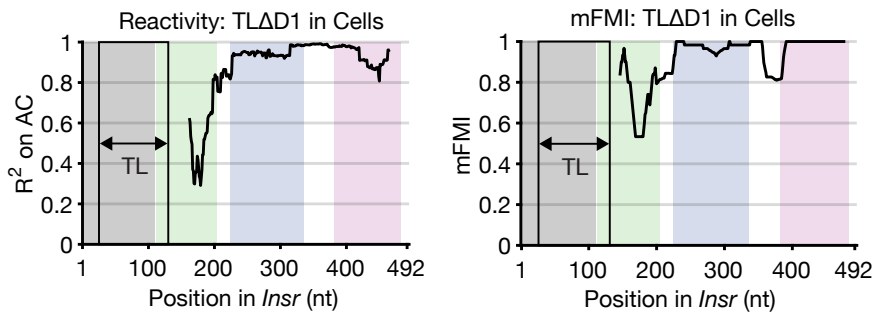


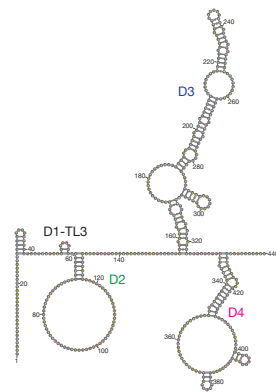
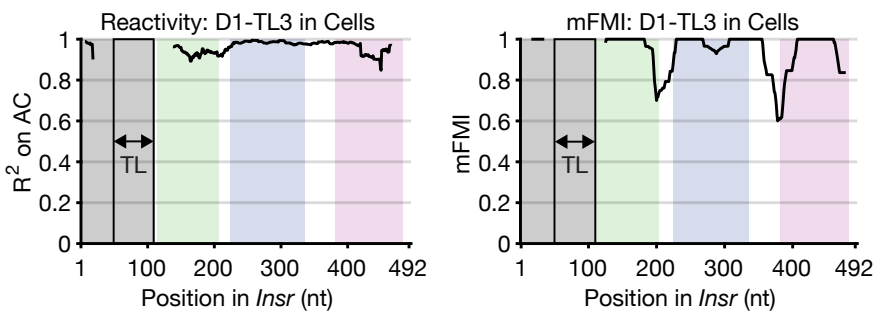
Supplemental Figure S7. Tetraloop hairpins rescue structure

Related to Figure 5D. For each subfigure: at left, coefficient of determination between DMS signal of this mutant compared to full-length *Insr* 5'UTR across their shared sequence range, considering only signal on As and Cs, calculated in windows (see Methods). Center, mFMI comparison between the predicted structure and full-length. Right, the secondary structure model of the mutant. Indexes in the structures correspond to the mutant UTR, not full-length. **(A)** Cellular structure of TL Δ D1, with all but D2 intact. **(B)** D1-TL3 repairs all surrounding structures in live cells compared to Δ D1 (in Supp. Figure S5A). **(C)** TL Δ D2 in live cells, where all surrounding structure is restored compared to Δ D2 (in Supp. Figure S5B). Base-pairs removed for clarity (G11-C15 with G109-C113) are indicated. **(D)** D3-TL2 probed in live cells (which replaces more UTR than Δ D3) also reveals a structural rescue (Δ D3 structure: Supp. Figure S5C). Base-pairs removed (C14-C18 with G215-G219) are indicated. Normalized DMS reactivity applies to all structures.

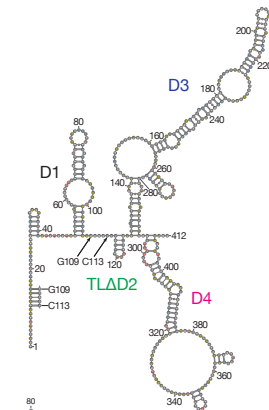
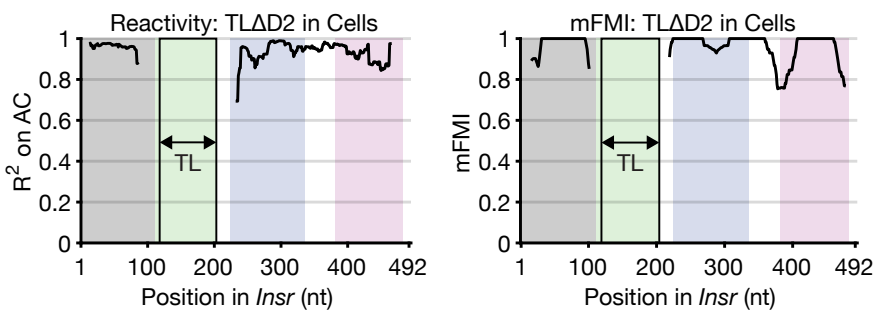
A TL Δ D1 in Cells, AUROC = 0.84, Mutation: G28-C131 to TL



B D1-TL3 in Cells, AUROC = 0.85, Mutation: G51-C108 to TL



C TL Δ D2 in Cells, AUROC = 0.86, Mutation: C117-U204 to TL



D D3-TL2 in Cells, AUROC = 0.86, Mutation: C222-G360 to TL

