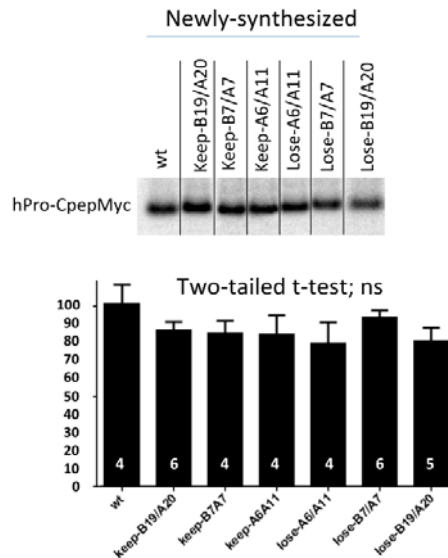
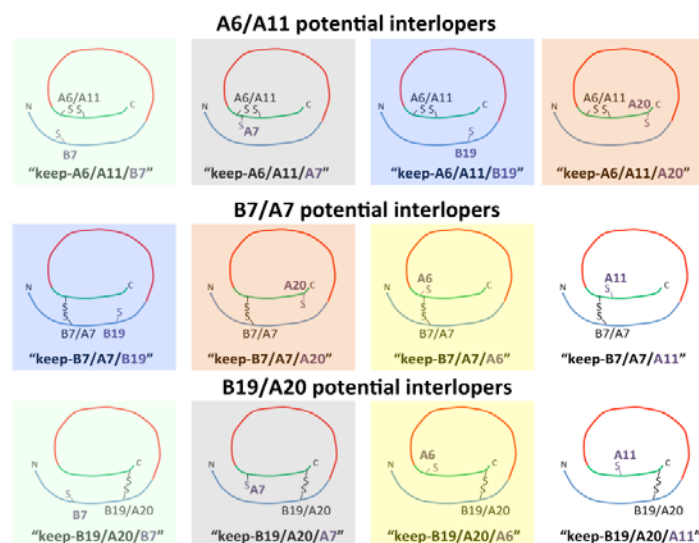


SUPPLEMENTARY DATA

Supplementary Figure S1. Proinsulin keep mutants and lose mutants are synthesized at rates comparable to that of wild-type proinsulin. INS1 cells were transiently transfected to express myc-tagged proinsulin ('wt'), or keep mutants or lose mutants as indicated. The methionine content of each of these constructs is identical. At 48 h, cells were labeled with pure ³⁵S-Met for 15 min, lysed, immunoprecipitated with anti-myc, and analyzed by reducing Bis-Tris 4-12% polyacrylamide gradient gel electrophoresis and phosphorimaging (upper panel). The synthesis of proinsulin was quantified by scanning densitometry and ImageJ; the numbers in white reflect independent replicates, and no statistically significant differences were observed.



Supplementary Figure S2. Schematic of potential cysteine interlopers that may lure natural disulfide partners into disulfide mispairing.



SUPPLEMENTARY DATA

Supplementary Figure S3. Effect of MIDY mutations on the secretion of proinsulin lose-A6/A11. 293T cells were transfected with myc-tagged proinsulin ('WT'), or the indicated constructs, or untransfected ('Control'). At 30 h post-transfection, both cells and overnight culture media were collected and analyzed by Western blotting as in Fig. 2A.

