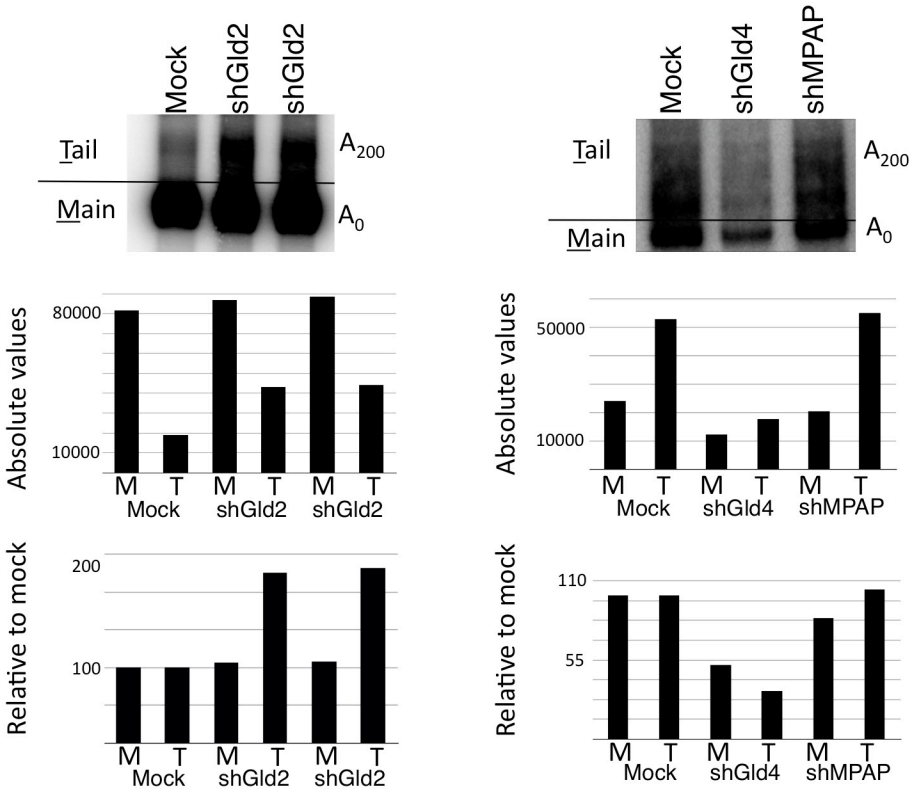
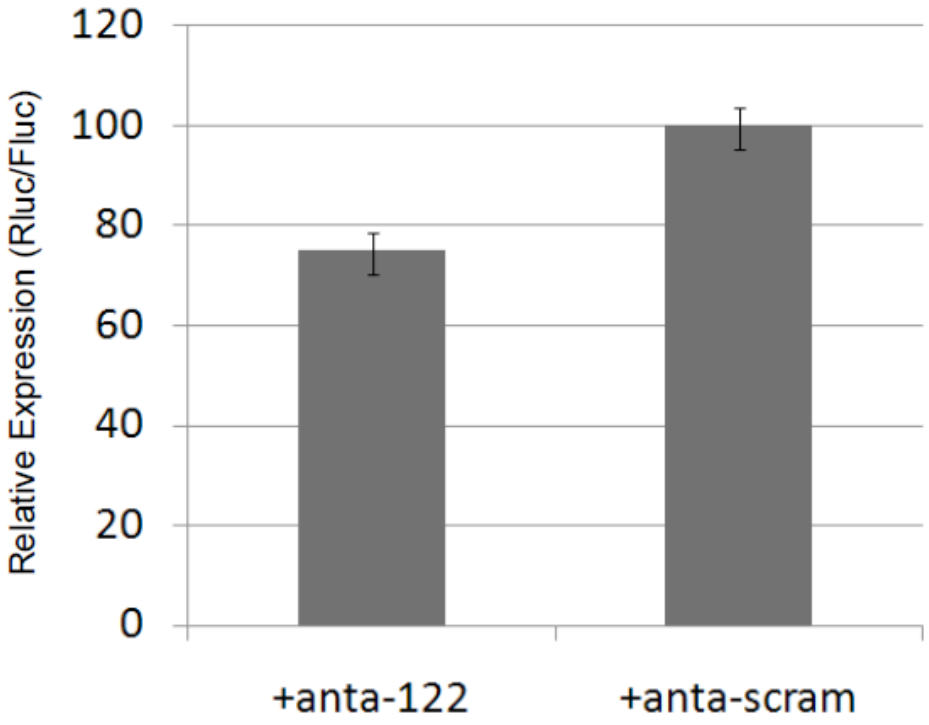
Supplementary Material

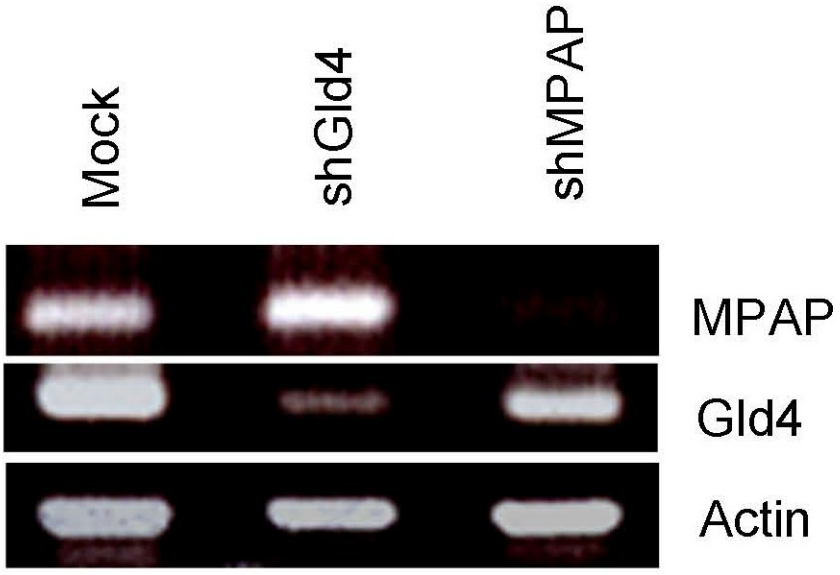


Supplemental Figure 1. Densitometric quantification of PAT assays of p53 mRNA. The PAT assays shown in Figs. 1d and 4d were scanned, quantified, and presented as absolute amount of poly(A) tail (T) and main body (M) of RNA and also as amount (in percent) relative to mock. Depletion of Gld2 increases the amount of p53 RNA poly(A) while depletion of Gld4 reduces not only the amount of poly(A), but the overall amount of p53 RNA as well.

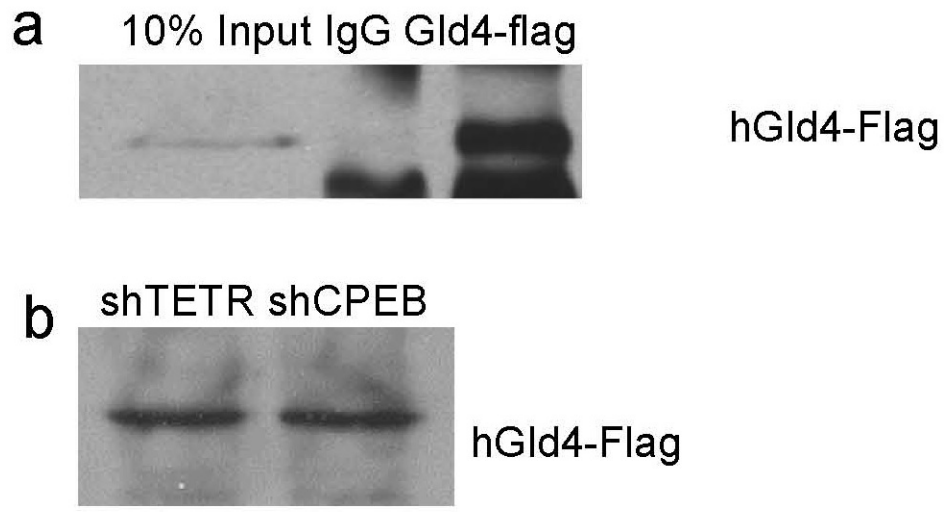
Supplemental Figure 2. Alignment of human miR-122 with two regions of the human CPEB 3' UTR.



Supplemental Figure 3. Fibroblasts were nucleofected with plasmid DNA encoding Renilla mRNA containing a CPEB 3' UTR lacking both miR-122 sites, and firefly luciferase mRNA as a control. Twenty-fours hours later, the cells were harvested and examined for luciferase activity. Error bars refer to s.e.m.



Supplemental Figure 4. RT-PCR confirming knockdown of Gld4 and MitoPAP (MPAP) RNAs. Human foreskin fibroblasts were infected with lentiviruses expressing GFP only (mock) or shRNAs for Gld4 or MitoPAP. RNA was then extracted and RT-PCR performed for MPAP, Gld4, or actin as a control.



Supplemental Figure 5. Ectopic expression of human Gld4-FLAG. a. Cells transfected with hGld4-FLAG were used for immunoprecipitation with the FLAG epitope followed by western blotting with antibody against FLAG. IgG was used for a control immunoprecipitation. b. Cells infected with lentiviruses expressing shRNA for the tetracycline repressor (TETR, a control) or CPEB were transfected with Gld4-FLAG, followed by western blotting for the FLAG epitope.