Supplementary Figures legends

Supplementary Figure 1.

TEL*, with just one instance of the sequence GxGT required to bind Cdc13(DBD), is a good telomerase substrate when extended by a few telomeric nucleotides and is inhibited by the DBD.

(**a**) Telomerase activity on four mutant TEL sequences is inhibited by the DBD of Cdc13p. Concentration of primers was 1 μM. These primers were desalted. The +1 markers were made using terminal deoxynucleotide transferase and 33P-dTTP. Filled and open arrowheads indicate +1 and +7 telomerase products. (**b**) Possible annealing register of TEL*, TEL*–GG and TEL*–TGG primers to the telomerase RNA (TLC1) template. TEL* has the greatest pairing potential, which is likely to be the reason why it is the best substrate of this series of TEL mutant sequences.

Supplementary Figure 2.

Telomerase activity is correlated with fraction of primer not bound by DBD or Cdc13p (i.e., totally digested primer in the SVP assay).

These data were obtained from the CoNuTe results shown in Figure 5b and 5c. Free primer (i.e., not bound to DBD or Cdc13p) was calculated by quantitating the "totally digested" band from snake venom phosphodiesterase experiments in Figure 5b using Imagequant TL software (GE Healthcare; see also Methods). Telomerase activity is the sum of the +1 through +7 bands normalized to the pre-labeled oligo in the CoNuTe assay that serves as a control for DNA recovery and gel loading. Relative telomerase activity is the activity compared to the same primer without DBD or Cdc13p added.