



**Supplementary Figure S1.** Telomerase reconstitution in RRL with hTRmin and a trans-complementing TEN domain. **(A)** Secondary structures of full-length hTR, separated template/PK (t/PK) and CR4/5, and hTRmin. **(B)** Activity of full-length TERT RNP reconstituted in RRL with the RNAs in **(A)** and assayed with (TTAGGG)<sub>3</sub> primer. An end-labeled DNA recovery control (RC) was added before precipitation and unextended primer was 5' end-labeled and run as a size marker (▶). Lane 3 is also shown as lane 1 in Figure 1F. **(C)** Activity and <sup>35</sup>S-methionine detection of TERT ring RNP reconstituted with hTRmin and a trans-complementing TEN domain before (Input, lane 1) or after subsequent purification for the TERT ring using FLAG antibody resin or for the TEN domain using amylose or NiNTA resin. Activity was assayed with (TTAGGG)<sub>3</sub> primer. Low activity yield with amylose resin purification (lane 3) may be due to resin binding interference by RRL components. Note that NiNTA resin purification enriches high-RAP activity relative to the amount of TERT ring RNP (lane 4).