

Supplementary Figures

Ganduri and Lue

Supp. Fig. S1

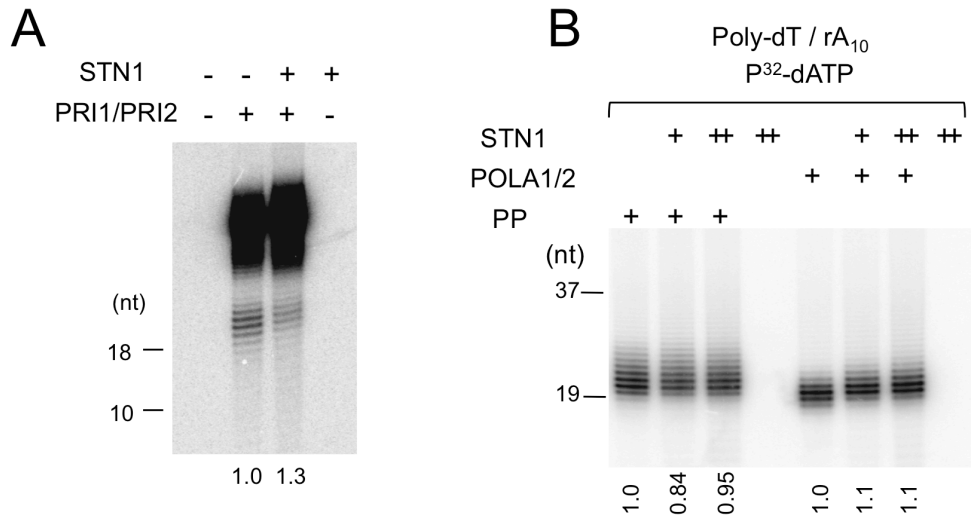


Figure S1. The effects of STN1 on isolated primase and DNA polymerase α activities

(A) The PRI1/PRI2 complex was incubated first with poly-dT and ATP (2 mM) in the absence or presence of STN1 as indicated to allow for the synthesis of unlabeled RNA primer. The poly-dT/oligo-rA products were then extracted and subjected to extension by POLA1/POLA2 in the presence of P³²-dATP. The labels at the top of the panel indicate components included in the first step of the reaction. Note that in this reaction condition, primase preferentially synthesizes dimer- and trimer-sized RNA (i.e., 20 or 30-nt RNA) such that the RNA-DNA chimeras are mostly 30-45 nt long. The relative activities are listed at the bottom.

(B) Human PP (1 nM) or POLA1/POLA2 (1 nM) complex was assayed using the poly-dT/rA₁₀ template/primer mix in the absence or presence of STN1-FG as indicated. + and ++ designate 0.5 and 1.5 μ M STN1, respectively. The relative activities are listed at the bottom.

Supp. Fig. S2

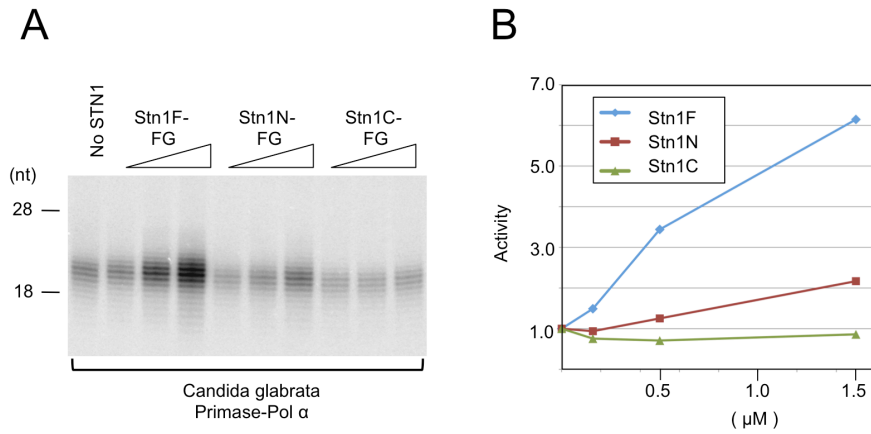


Figure S2. Stimulation of *Candida glabrata* PP activity by human STN1, STN1N and STN1C

(A) *Candida glabrata* PP (2 nM) was assayed for the synthesis of RNA-DNA chimera using Poly-dT template in the presence of increasing concentrations of STN1-FG, STN1N-FG, and STN1C-FG (0.16, 0.5 and 1.5 μ M) as indicated.

(B) The signals in (A) were quantified and plotted.

Supp. Fig. S3

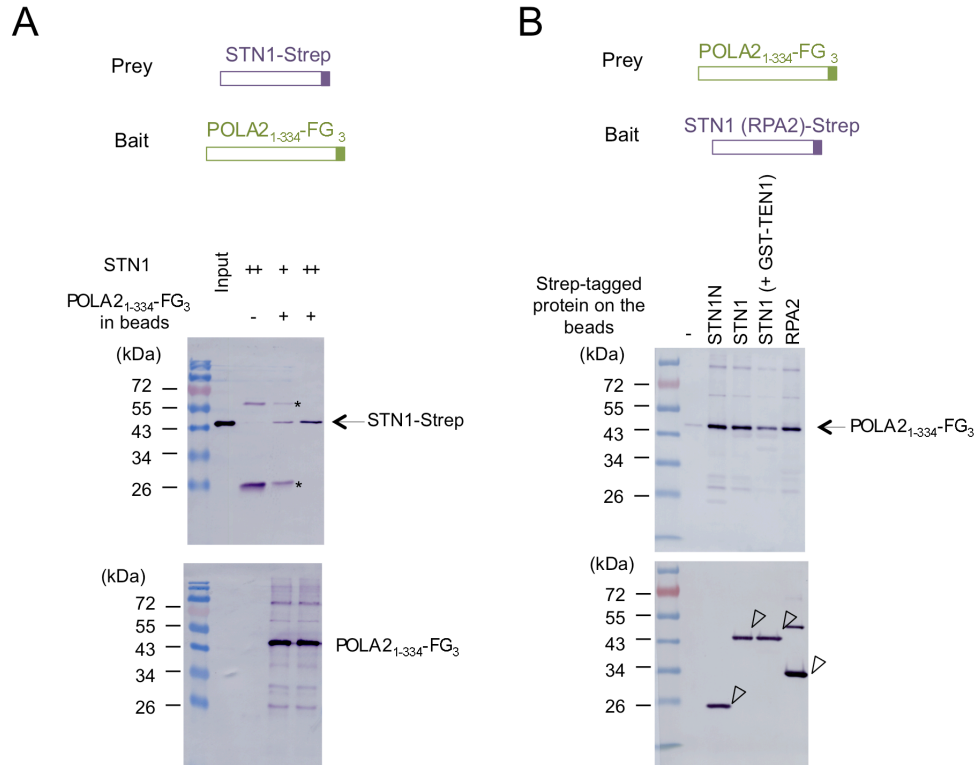


Figure S3. The binding of POLA2 to STN1, STN1-TEN1, and RPA2

(A) POLA2₁₋₃₃₄-FG₃ was bound to FLAG beads and used to pull down STN1-Strep. The indicated input and elution samples were analyzed for the levels of STN1-Strep (top panel) and those of POLA2₁₋₃₃₄-FG₃ (bottom). Two cross-reacting bands were sometimes observed (indicated by *).

(B) The indicated Strep-tagged proteins or protein complex were bound to Strep-Tactin beads, and used to pull down POLA2₁₋₃₃₄-FG₃. The elution samples were analyzed for the levels of POLA2₁₋₃₃₄-FG₃ (top panel) and those of the various Strep-tagged proteins (bottom, indicated by open arrowheads).