



**Figure S1. Binding and transcription of partially single-stranded promoter DNA template by N4 RNAPII.** A. An autoradiogram of a gel mobility shift assay in a native 7% acrylamide gel shows binding of RNAPII to the  $^{32}\text{P}$  5' end labeled promoter DNA template used for crystallization of the binary complex. B. An *in vitro* transcription assay used to determine transcriptional activity of RNAPII on the promoter DNA template used for crystallization of the binary complex. The left panel shows a schematic view of the TS DNA in the initially transcribed sequence of the template. Two transcription start sites detected in the right panel are indicated by arrows. The right panel shows an autoradiogram of transcripts obtained in *in vitro* transcription reactions from the promoter DNA template in the presence of GTP + UTP and GTP in a 20% acrylamide 7 M urea denaturing gel. Transcription products were labeled by incorporation of  $\gamma$ - $^{32}\text{P}$ -GTP to the 5' ends of RNA. Compositions of transcripts are indicated on sides of the gel.