



**Supplementary Figure 1. RecUK56A or RecUR71A anneals ssDNA.** Heat denatured DNA (0.3  $\mu\text{M}$  in nt) renders complementary Watson (w) and Crick (c) strands and addition of RecU enhances the annealing reaction (upper drawing). Heat denatured DNA was incubated with RecU, RecUK56A or RecUR71A (200 nM) in buffer A containing 1 mM  $\text{MgCl}_2$  for 15 min. After deproteinization, substrates and products were separated by 6% dPAGE. C, control dsDNA (ds) and ssDNA (ss); -, denotes no protein addition.