Supplemental Table 1. Oligonucleotides[1] used in this study.

leadP122
CGTGACTTGATGTTAACCCTAACCCTAAGATATCGCGTTAAGTGAGTGTGAGGATACATGT-
AGGCAATTGCCACGTGTCTATCAGCTGAAGTTGTTCGCGACGTGCGATCGTCGCTGCGACG

lagP122
CGTCGCAGCGACGATCGCACGTCGCGAACAACTTCAGCTGATAGACACGTGGCAATTGCCT-
ACATGTATCCTCACACTCTGAATACGCGATATCTTAGGGTTAGGGTTAACATCAAGTCACG

lagD82
TCAGAGTGTGAGGATACATGTAGGCAATTGCCACGTGTCTATCAGCTGAAGTTGTTCGCGA-
CGTGCGATCGTCGCTGCGACG

leadD52
CGTCGCAGCGACGATCGCACGTCGCGAACAACTTCAGCTGATAGACACGTGG

lagP38-3'
ACGCGATATCTTAGGGTTAGGGTTAACATCAAGTCACG

ss32
TAAGTGAGTGTGAGGATACATGTAGGCAATTG

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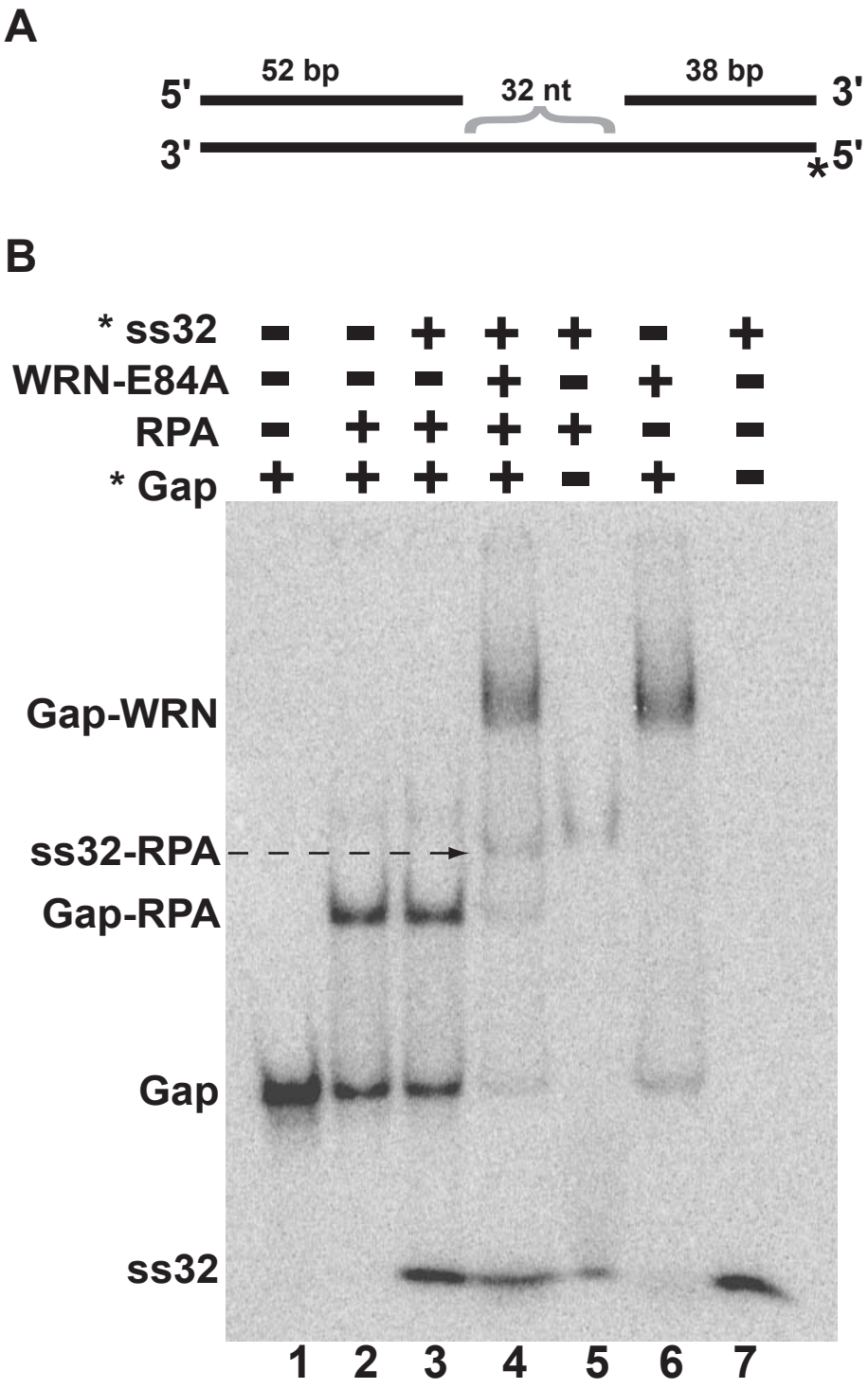
[1]All oligonucleotides are represented in 5' to 3' orientation.

Supplementary Figure 1. **Displacement of RPA bound to the ssDNA gap of model DNA substrate by WRN-E84A. A)** Structure of the model gapped DNA duplex substrate. The position of radiolabel is indicated by asterisk. **B)** Gapped DNA duplex substrate (20 fmol) was incubated in the presence or absence of RPA (20 fmol) for 5 min at 25°C, followed by subsequent incubation with or without WRN-E84A (50 fmol) for an additional 5 min at 25°C. This is followed by the addition of ATP (1 mM) and/or 20 fmol of radiolabeled 32-mer (*ss32) and further incubation at 37°C for 10 min. The reactions are then analyzed by EMSA as described in Experimental Procedures. Positions of migration of the labeled gapped duplex (Gap) and ss32 DNA species and Gap-RPA, Gap-WRN and ss32-RPA complexes are denoted at left.



Supplemental Fig. 1