RecA maintains the integrity of chloroplast DNA molecules in Arabidopsis
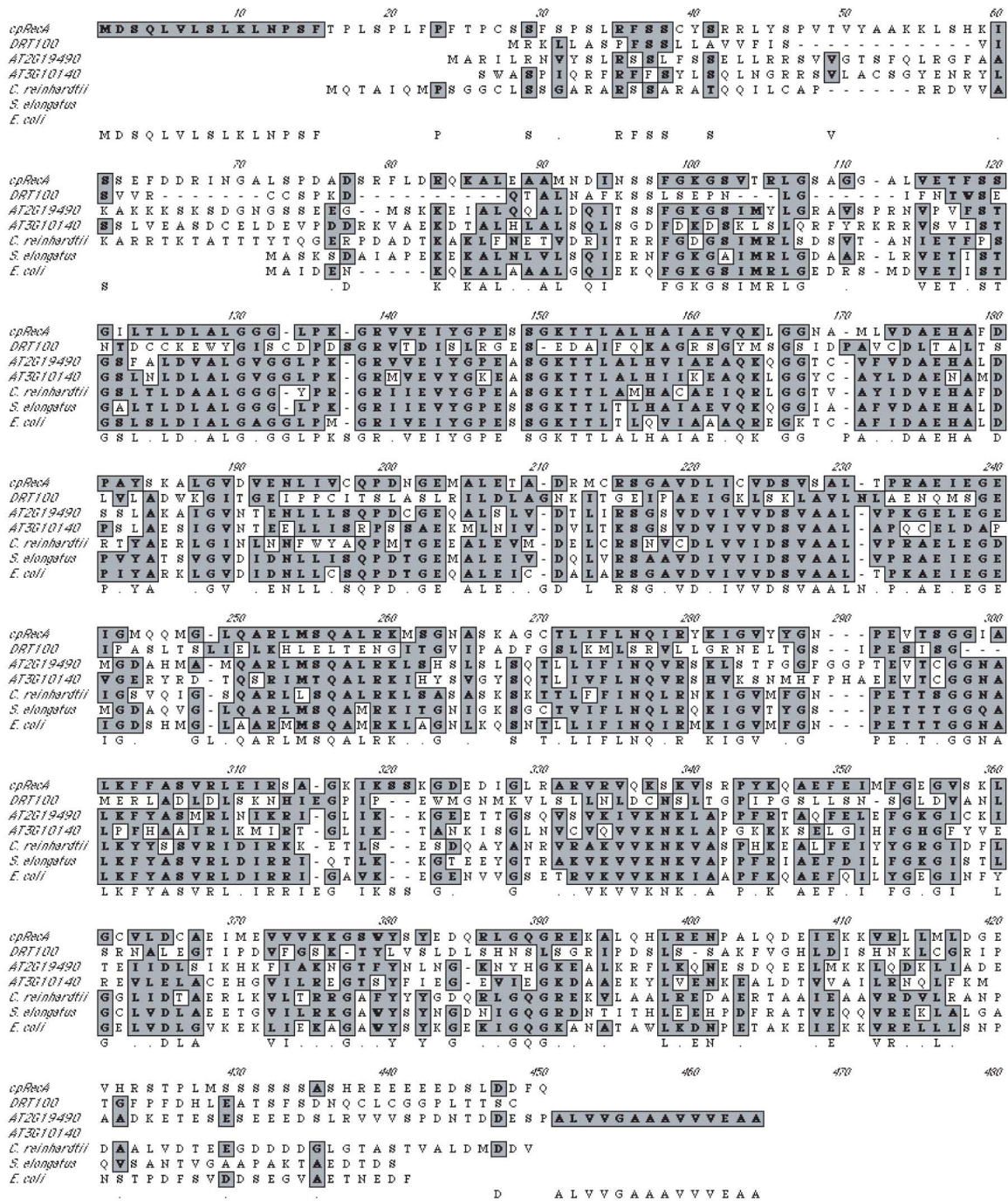
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Supplementary Material

Figure S1. Protein alignment and phylogeny of coding regions of putative RecA homologues. (**A**) Protein alignment for cpRecA and three other RecA homologues (DRT100, AT2G19490, AT3G10140) encoded in the Arabidopsis nuclear genome, *Chlamydomonas reinhardtii* (*C. reinhardtii*, nuclear-encoded, chloroplast-targeted homologue), *Synechococcus elongatus*, (*S. elongatus*, cyanobacterial homologue), and *E. coli* RecA. The last line shows the consensus sequence. (**B**) Neighbor-joining tree of coding sequences (excluding the region coding for the signal peptide). Values at nodes are bootstrap values from 20,000 replicates.

Figure S1

A

B

AT2G19490
AT3G10140
DRT100
cpRecA
S. elongatus
C. reinhardtii
E. coli

A. thaliana

78
58
64
70

mitochondrion
chloroplast
both organelles
unknown

0.2