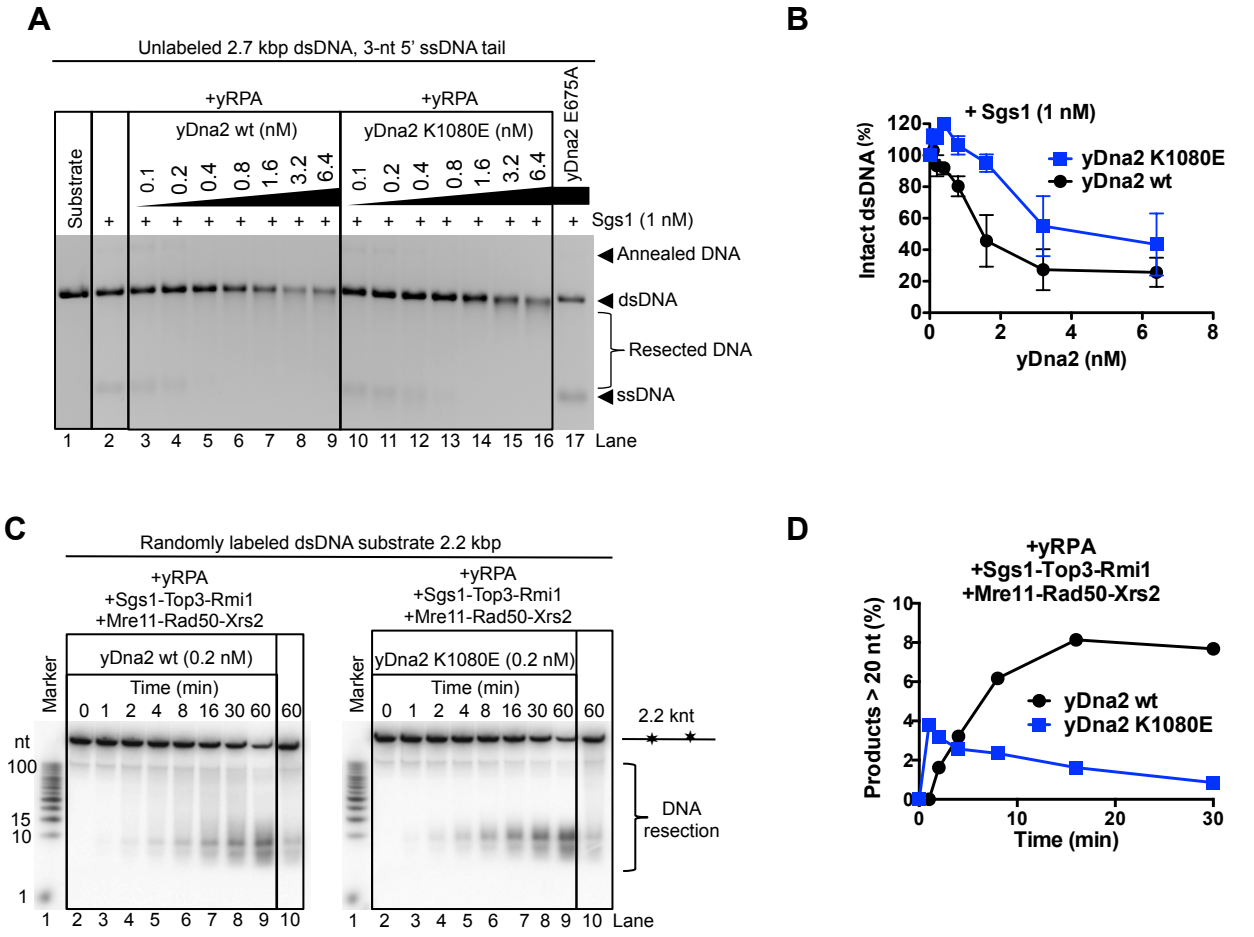

Figure S5.
The motor activity of yDna2 promotes DNA end resection. (A) DNA end resection by wild type yDna2 or helicase-deficient yDna2 K1080E variant in conjunction with 1 nM Sgs1 on 5' tailed 2.7 kbp-long dsDNA substrate. DNA was visualized by staining with ethidium bromide. (B) Quantitation of (A). Averages shown, n=2; error bars, range. (C) Analysis of DNA degradation products lengths of DNA end resection assays with Sgs1 (0.3 nM), Top3-Rmi1 (10 nM), Mre11-Rad50-Xrs2 (40 nM) and either wt yDna2 or yDna2 K1080E with randomly ^{32}P-labeled dsDNA substrate. Reaction buffer contained 100 mM sodium acetate. The reaction products were analyzed by 20% polyacrylamide denaturing electrophoresis, representative gels are shown. Reactions with wt yDna2 gave rise to longer DNA degradation products. This is a footprint of the yDna2 helicase activity in DNA end resection.(D) Quantitation of (C). Relative proportion of DNA degradation products larger than 20 nt in length was determined. Averages shown, n=2; error bars, range.