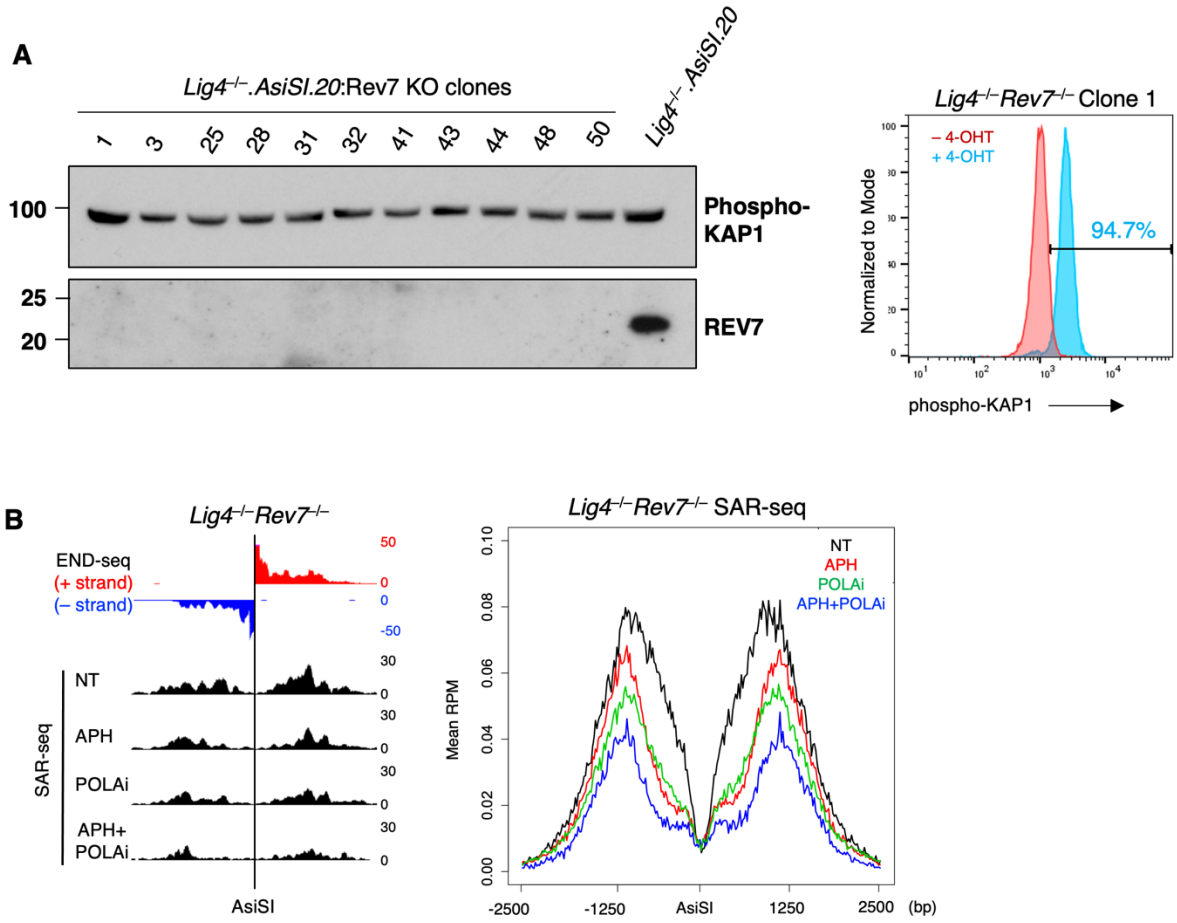
Paiano_Supp_FigS6



Supplemental Fig. S6. *Lig4*$^{-/-}$*Rev7*$^{-/-}$ cells exhibit robust polymerase alpha dependent fill-in synthesis. A) REV7 was knocked out in LIG4-deficient pre-B cells harboring the AsiSI-ER construct. KO clones were validated by REV7 Western blot (left) and assayed for AsiSI cutting by phosphorylated KAP1 (phospho-KAP1) Western blot (left) and flow cytometry (right). *Lig4*$^{-/-}$*Rev7*$^{-/-}$ clone 1 showed robust DNA damage in ~95% of cells after 6 hr AsiSI cutting. Subsequent experiments were therefore performed using this clone. **B)** Left: Genome browser snapshot of END-seq and SAR-seq after 18 hr AsiSI cutting at an individual break site. No additional treatment was given for END-seq. For SAR-seq, cells were concurrently treated with either no drug (NT), 5 μM aphidicolin (APH), 1 μM polymerase alpha inhibitor (POLAi), or both. Right: Aggregated SAR-seq signal around the strongest 200 AsiSI breaks for all drug treatments. APH and POLAi significantly decrease SAR-seq signal across the genome. All panels show representative datasets from two independent replicate experiments.