

Figure S1. Comparison of Slx4 enrichment scores to replication timing, Dpb3 enrichment scores, and to DNA replication profiles. (A) Average Slx4 ChIP enrichment scores are compared to the time of origin activation (Trep) for the 108 early-firing origins. Pearson's r is indicated. (B) Average ChIP enrichment scores (top, as shown in Figure 1F) and matching replication profile analysis (bottom), across 108 early-firing origins is plotted for Dpb3 and Slx4 ChIP at 30, 60, and 90 min following synchronous release into S phase in the presence of 0.035% MMS. (C) Average Dpb3 ChIP enrichment scores are overlaid with the matched replication profile analysis for each time point. (D) Average Dpb3 ChIP enrichment scores are overlaid with Slx4 ChIP enrichment scores for each time point.

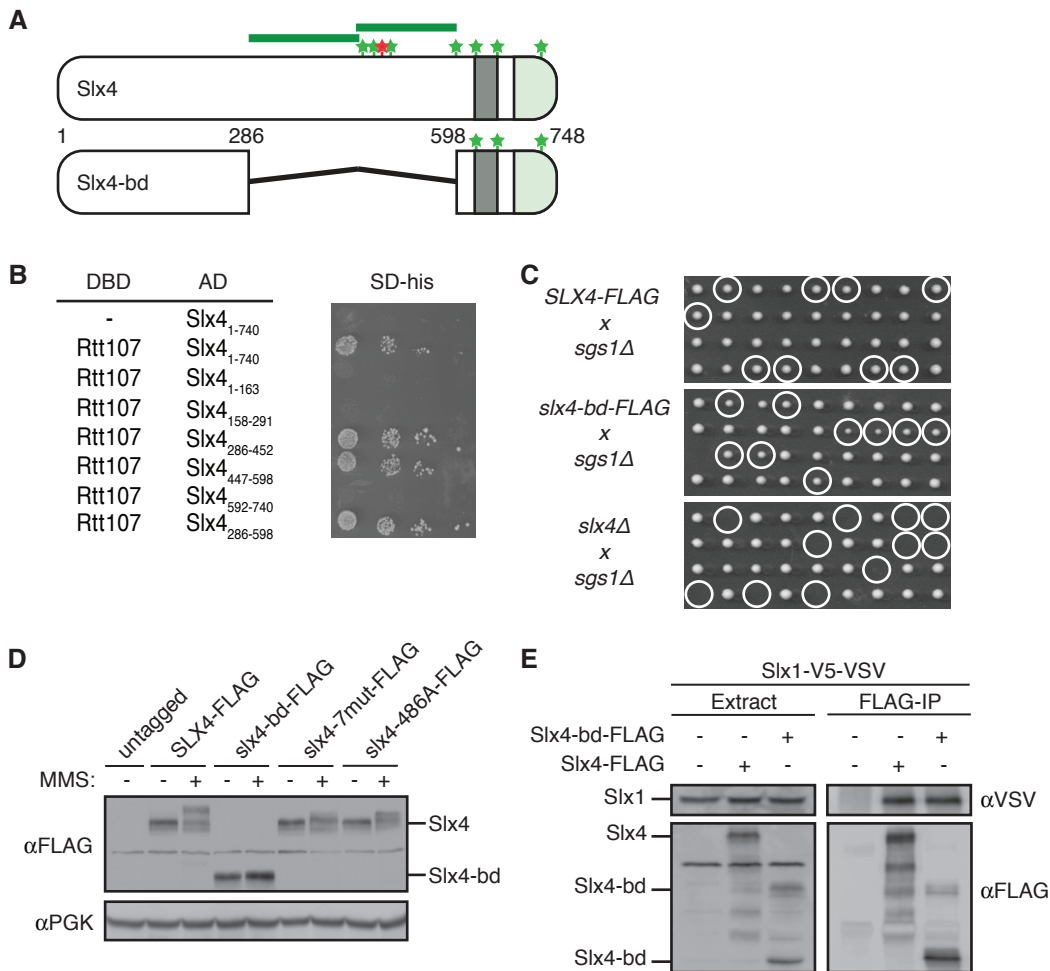


Figure S2. Mapping the Rtt107 binding regions of Slx4. (A) Schematic of Slx4 and Slx4-bd. Slx4-bd contains an internal deletion of the two fragments (green bars) that support binding to Rtt107 in Y2H assays. Asterisks are Mec1/Tel1 (green) and CDK (red) phosphorylation sites. (B) Cells expressing Rtt107 fused to the Gal4 DNA-binding domain (DBD) or DBD alone and full length Slx4 or Slx4 fragments fused to the Gal4 activation domain (AD) were serially diluted ten-fold, plated on media lacking histidine, and grown at 30°C for 3 days. (C) Diploids from the indicated crosses were sporulated and tetrads were dissected. Spores containing both the indicated parental *SLX4* allele and *sgs1Δ* are circled. (D) Immunoblot analysis of the indicated strains treated with or without 0.035% MMS for 2 hours. Extracts were prepared under denaturing conditions, and the immunoblot was probed with anti-Flag or anti-Pgk1 antibodies (as a loading control). (E) Slx4-bd binding to Slx1 was analyzed by co-immunoprecipitation. The immunoblot was probed with anti-VSV or anti-Flag antibodies.

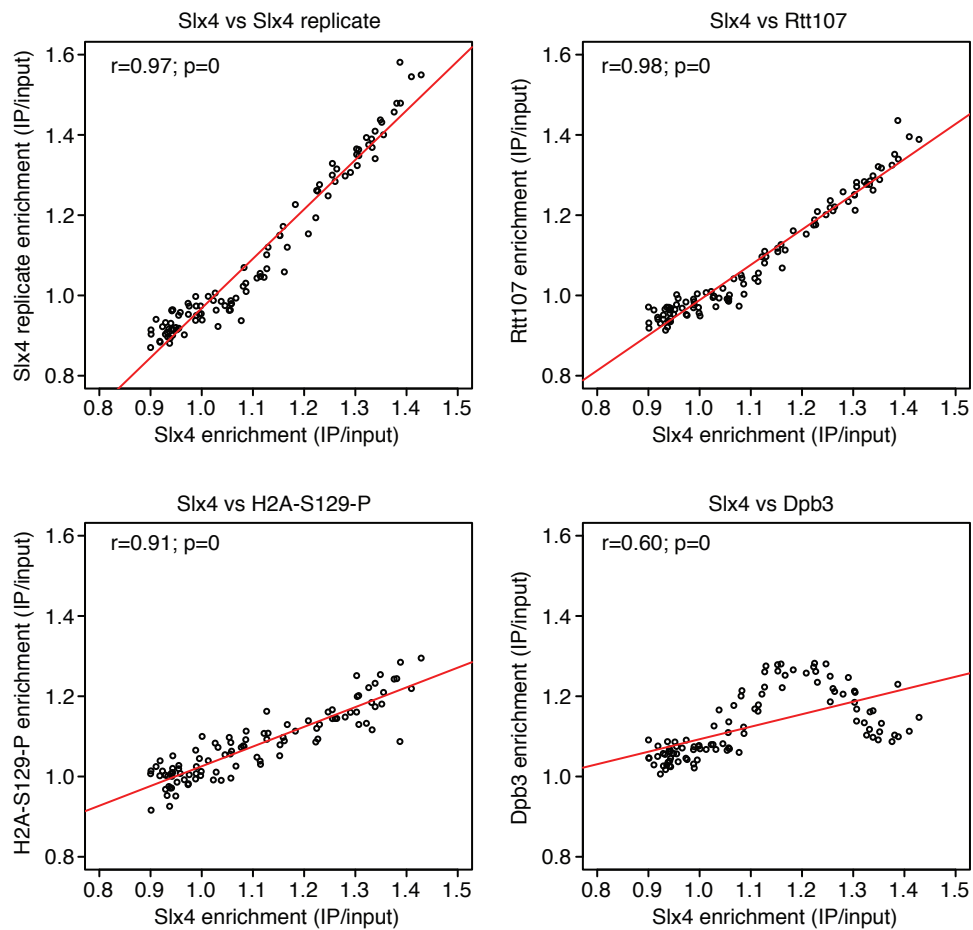


Figure S3. Correlation of Slx4 enrichment scores with Rtt107, H2A-Ser129-P, and Dpb3 enrichment scores. Median ChIP enrichment scores are compared for the 108 early-firing origins. Slx4 enrichment scores are compared to enrichment scores from an independent Slx4 ChIP, to Rtt107 enrichment scores, to H2A-Ser129-P enrichment scores, and to Dpb3 enrichments scores. Pearson's r is indicated for each.