



**A.** Primers were designed to amplify regions in the *S. cerevisiae* genome corresponding to the early firing origin ARS607 (stippled bars), and non-origin sites 4 kb (white) and 14 kb (gray) away on Chr 6, and the late firing origin ARS501 (black). The active and inactive origins (ARS) have been previously described (Raghuraman et al., 2001; Reynolds et al., 1989). ChIP was performed at 30°C on either Myc-tagged DNA pol  $\epsilon$  for isogenic **B.** wild-type (GA-2448), **C.** *mec1 $\Delta$  *sml1 $\Delta$  (GA-2588), and **D.** *mec1 $\Delta$  *sml1 $\Delta$  *sgs1 $\Delta$  (GA-2589) cells or HA-tagged DNA pol  $\alpha$  for isogenic **E.** wild-type (GA-2238), **F.** *mec1 $\Delta$  *sml1 $\Delta$  (GA-2579), and **G.** *mec1 $\Delta$  *sml1 $\Delta$  *sgs1 $\Delta$  (GA-2580) cells. The height of the bars represents the real time PCR signal fold increase over the background signal.**********