

**Supplementary Figure S4. Replication times of activated and compromised origins in *mec1-1* and *rad53-1* cells assigned according to previously published timing data.**

Replication times were assigned to all activated origins identified by the microarray analysis (Sup. Tables III and IV) according to two earlier studies (Raghuraman *et al.*, 2001; Yabuki *et al.*, 2002). Replication times ranged from 10-60 min for Raghuraman *et al.* and 16-34 min for Yabuki *et al.* The “cutoffs” for early-firing origins used by Raghuraman *et al.* and Yabuki *et al.* were 28 and 24 min, respectively. Replication times are shown for compromised early origins, CEOs (A, B), and all activated origins (C, D) in *mec1-1* and *rad53-1* cells. Note that the majority of CEOs falls into the 21-25 min time window (A, B), whereas the majority of active origins falls into the 26-30 min time window (C, D).

## Supplementary Figure S4

