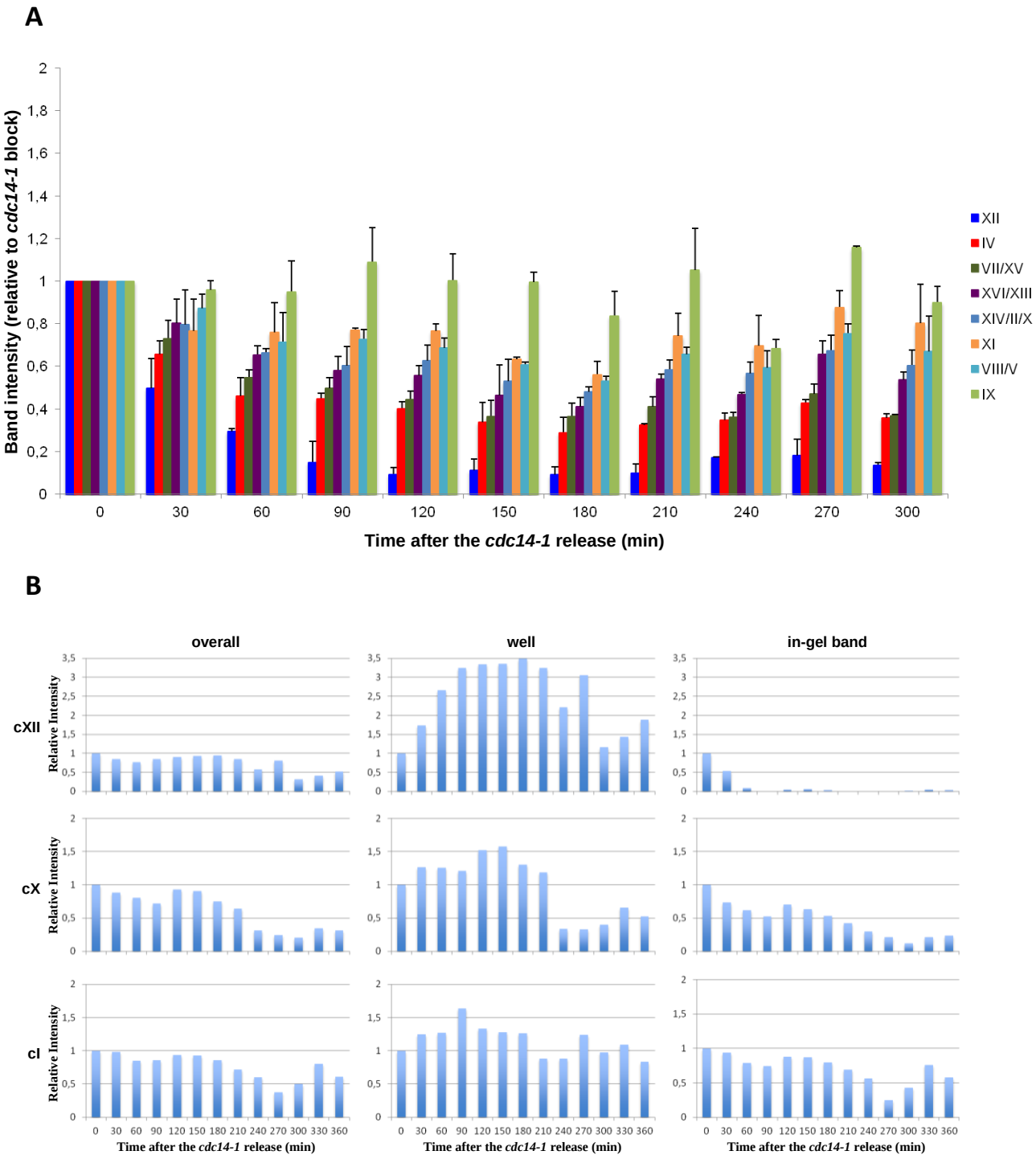

Figure S1 Quantitative analysis of the relative amounts of intact chromosomes in the homozygous S288C diploid strain analyzed by PFGE after the *cdc14-1* block-and-release. (A) The intensities of each ethidium-bromide-stained band in Fig. 2D and two more independent experiments were normalized to the sum of the band signals corresponding to chromosomes I, VI, and III, and then to the intensities at time 0 (time of the *cdc14* block). Error bars represent s.e.m (N=3). (B) In-gel and in-well signals of unsaturated exposures of the Southern blots shown in Fig. 2D were quantified and normalized to that of time 0' (cdc14-block). Overall is the sum of both in-gel and in-well signals.

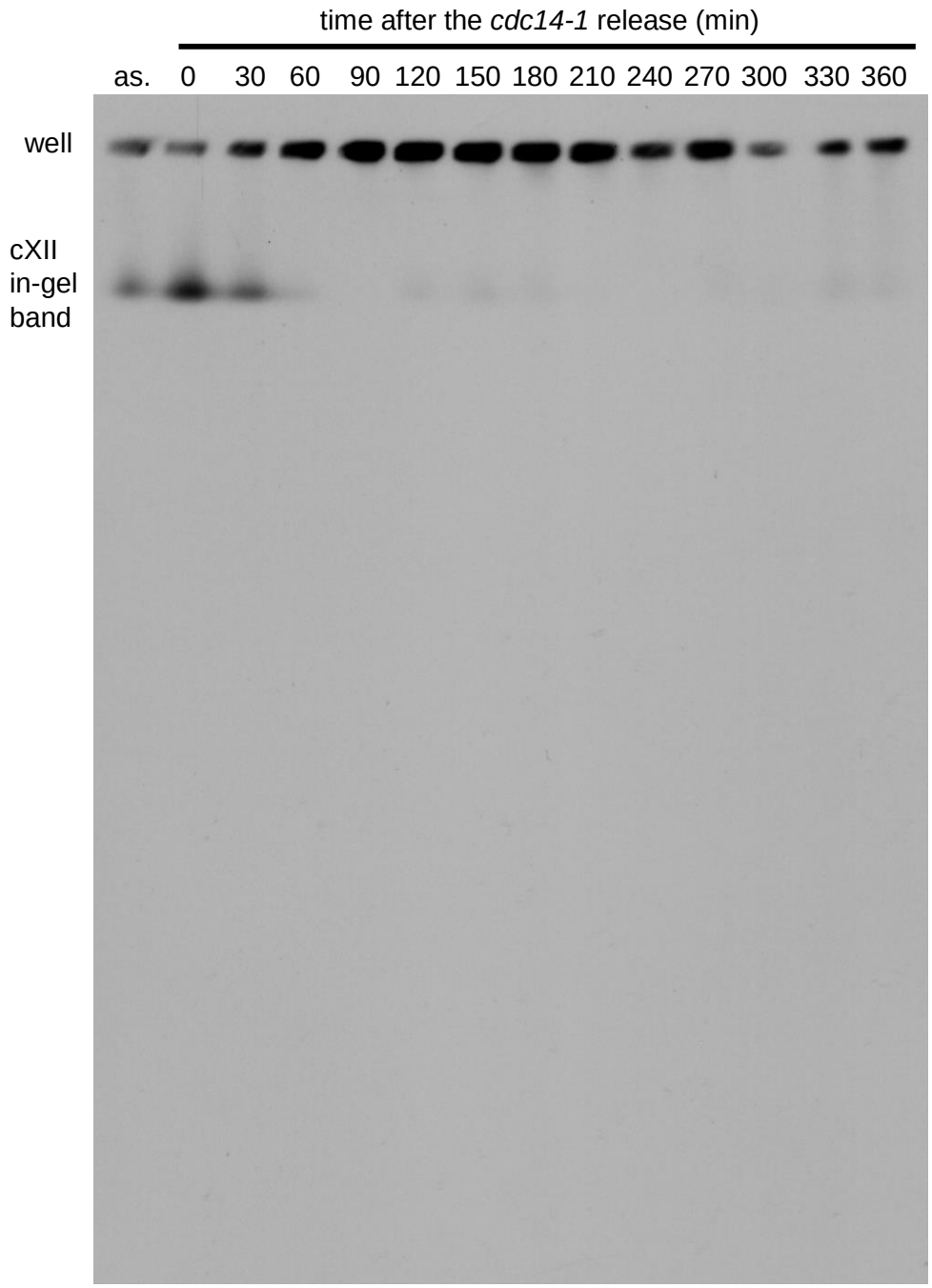

Figure S2 Southern analysis with a cXII hybridization probe of DNA isolated from the homozygous diploid *cdc14-1* strain during the block-and-release time course. This figure shows a less exposed film of the same blot shown in Fig. 2D (central-left image) in order to better visualize the amount of cXII that remains in the well during the time course. The lane labeled "as." contains DNA isolated from asynchronous cultures of the *cdc14-1* strain before exposure to the restrictive temperature.

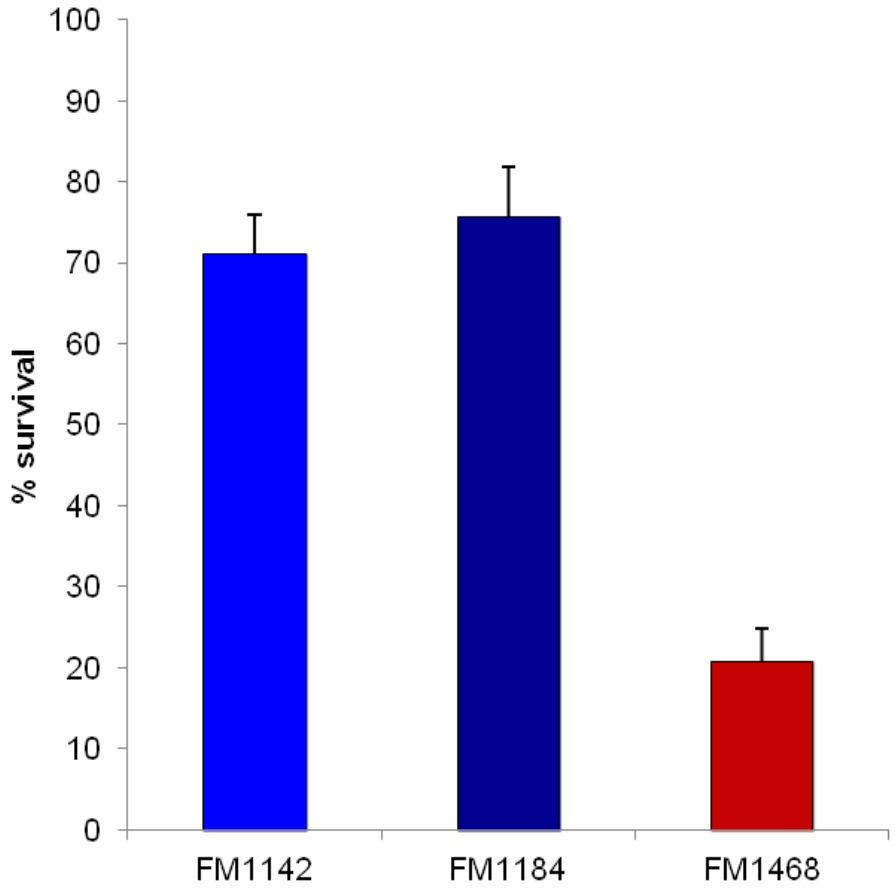

Figure S3 Viability analysis of haploid and diploid strains used for the SNP microarrays following the *cdc14-1* block-and-release protocol. FM1142 and FM1184 strains are the *cdc14-1* haploids that were mated to generate FM1468 (the diploid used to perform the SNP microarray analysis). Error bars represent s.e.m (N=3).

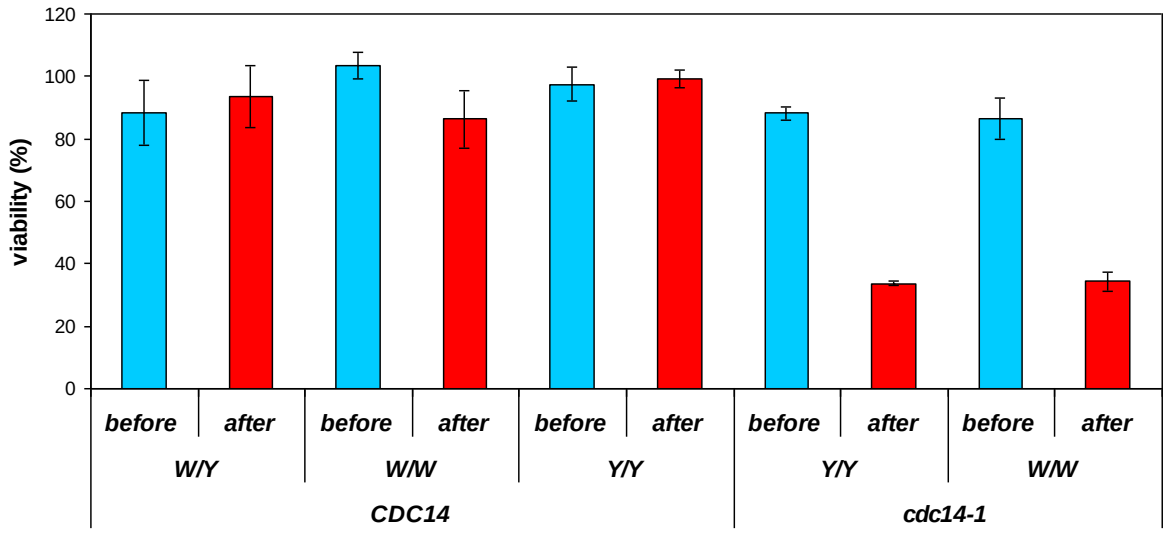

Figure S4 Viability analysis following the temperature shift procedure used for the block-and-release protocol of *CDC14* and *cdc14-1* diploid strains homozygous and heterozygous, respectively, for the ~55,000 SNPs. In order to obtain the corresponding diploid strains, reference W303 (W) and YJM789 (Y) haploids carrying either the wild type *CDC14* or the temperature sensitive *cdc14-1* alleles were mated with themselves (Y/Y or W/W) or between them (W/Y). Each diploid strain was grown at 25°C in YPD and then an aliquot was directly plated on YPD and incubated at 25°C for three days ("before", blue bars), whereas another aliquot was taken after incubating the culture at 37°C for 3 h ("after", red bars). For each aliquot, plated cells were estimated under a haemocytometer and viability represents CFU versus plated cells. Error bars represent s.e.m (N=3).