



Figure S1 Analysis of coupling of markers using UV-induced mitotic crossovers. As discussed in the text, we were interested in determining the fraction of gene conversion events at the *URA3* locus that were unassociated (NCO) and associated (CO) with crossovers. Although most of our analysis of coupling was done using meiotic analysis (Fig. 6), we found that coupling could also be analyzed by inducing secondary crossover events with UV. More specifically, we determined the coupling of the *hphMX4* and *SUP4-o* markers by identifying red/white sectorized colonies in which the *hphMX4* marker was also segregating. Less than 10% of the irradiated colonies formed red/white sectors, as expected from previous studies (Yin and Petes, 2013).

A. Sectoring pattern expected for NCO conversions. If *hphMX4* and *SUP4-o* markers are in the non-recombinant configuration in the diploid before irradiation, then we expect that the red sector will be Hyg^S and the white sector Hyg^R.

B. Sectoring pattern expected for CO conversions. If the *hphMX4* and *SUP4-o* markers are in recombinant configuration in the diploid before irradiation, then we expect that the red sector will be Hyg^R and the white sector Hyg^S.