Supplementary Fig. 2. Background mutant frequencies and spectra. (a) Mutant frequencies of pUR288-S plasmids recovered from pUR288-S plasmids grown in *E. coli*. The latter were recovered using either *HindIII* or *PstI*. (b) Percentage of no-change (black bars) and size change (white bars) pUR288-S mutant plasmids recovered from *E. coli*. In order to verify if the mutations that had occurred in the fly were not due to artifacts of *E. coli*, we did a mock rescue using both *PstI* and *HindIII*-linearized pUR288-S mixed with genomic DNA from non-transgenic flies. Whereas *HindIII* digestion will result in the recovery of genome rearrangements involving the fly 3’ flanking sequence, *PstI* digestion will only yield internal plasmids; flanking plasmids will not be able to regenerate a disrupted ampicillin resistance gene.