## **SUPPLEMENTARY**

**FIGURE S1.** Generation of  $pvr^{5363}$  and pvf2-3 mutant clones. A. Diagram of  $P\{XP\}Pvf2^{d00645}$  and  $PBac\{WH\}Pvf3^{f04842}P$  element insertions into pvf2 and pvf3 genes, respectively (top diagram). P element excision by recombination removed the promoter region of pvf2 and pvf3 after the first exon to generate pvf2-3 deletion mutant (bottom diagram). Black and white boxes represent translated and untranslated sequence, respectively. Transcription initiation sites are indicated with arrows and the P element recombination sites depicted with triangles. The scale bar indicates 1kbp, and long intronic regions are shown as bent lines with their sizes labeled above. B. Generation of pvf2-3, neoFRT(40A) and pvr, neoFRT(40A) recombinants for MARCM. Single fly PCR of neoFRT(40A) (lanes 2-7),  $pvr^{5363}$  (lanes 8-13), pvf2-3 (14-19). The individual genotypes are indicated. Ladders are shown in lane 1 (100bp) and lane 20 (1kbp) and with labeled with respective bands sizes. PCR of the gene region flanking the 63bp deletion found in  $pvr^{5363}$  generates a band of ~160bps in wildtype pvr and ~100bps in the  $pvr^{5363}$ . PCR of DNA from heterozygous  $pvr^{5363}$  flies show 2 bands at ~100bps and ~160bps (lanes 9 and 11).



