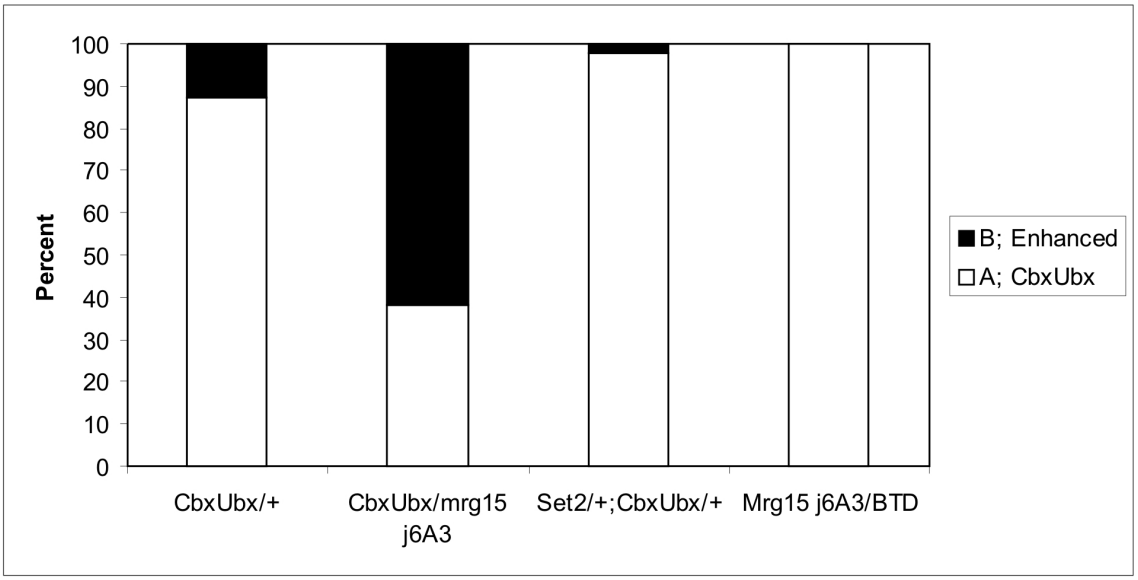

FigureS4 Transvection in *Mrg15*. Wings from the genotypes shown on x-axis were scored as either typical $Ubx^{Cbx\text{-}1}Ubx^{1}$ (class A, white bar) or enhanced (class B, black bar). Note that "typical" class A wings are not wild type and instead have a moderate abnormal morphology as a result of the transvecting $Ubx^{Cbx\text{-}1}$ allele. See Figure 7 of main text for images of typical wings. For simplicity, $Ubx^{Cbx\text{-}1}Ubx^{1}$ is denoted above as "CbxUbx". The data presented in this Figure S4 for $Mrg15^{j6A3}$ was derived independently of the data in Figure 7 of the main text. As an additional control, the Set^{1}/+ mutation has no significant effect on this transvection system. The last genotype includes the bithorax transvection disruptor (BTD), which is a rearrangement of the $Ubx^{Cbx\text{-}1}Ubx^{1}$ chromosome. N>61 for all genotypes. P-values using chi-squared relative to $Ubx^{Cbx\text{-}1}Ubx^{1}$/++ enhanced class: $Mrg15^{j6A3}$ p<0.001, $Set2^{1}$ p=0.74, $Mrg15^{j6A3}$/BTD *p<0.005*. The $Set2^{1}$ mutation has no significant affect on transvection in this assay and serves as a negative control. Note that since only one *Set2* mutant allele was tested we cannot exclude the possibility that other *Set2* mutations may modify transvecting loci.