

Supplemental Material

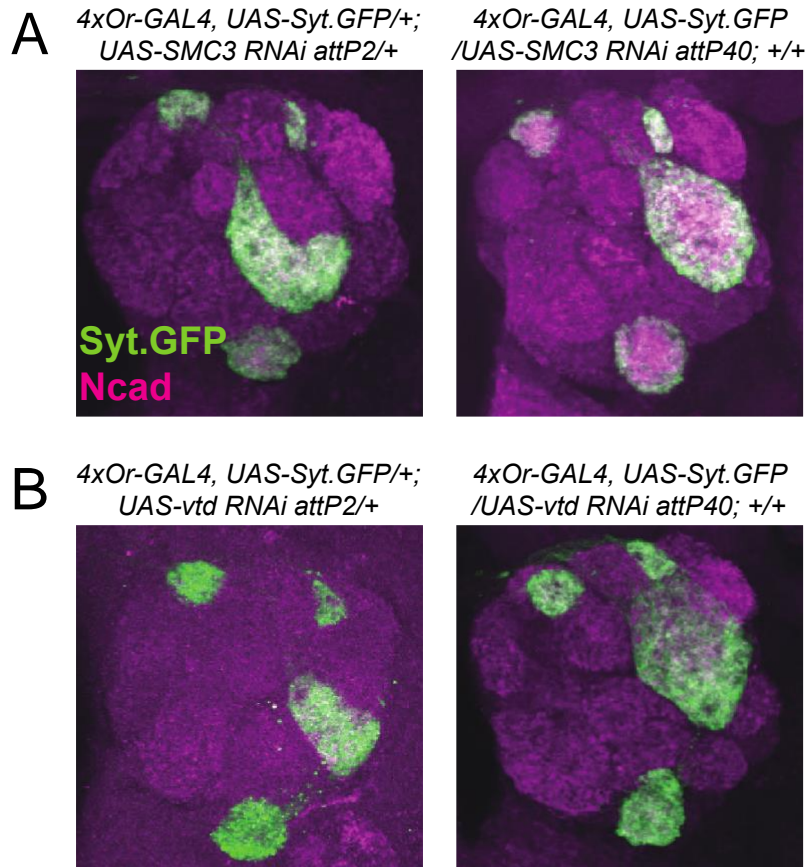


Figure S1. Additional *TRiP* *UAS-RNAi* results showing the *attP40* but not *attP2*-specific glomerular organization phenotype. Similar to *Beat/Side* screening results in Figure 1A,B, crossing *4xOr-GAL4, UAS-Syt.GFP* chromosome to two *UAS-SMC3 RNAi* lines (**A**) and *UAS-vtd RNAi* lines (**B**) respectively gave rise to glomerular expansion with *attP40* insertion but not *attP2* insertion. 5-9 brains were examined in each genotype and the phenotypical penetrance is 100% in *attP40* groups.

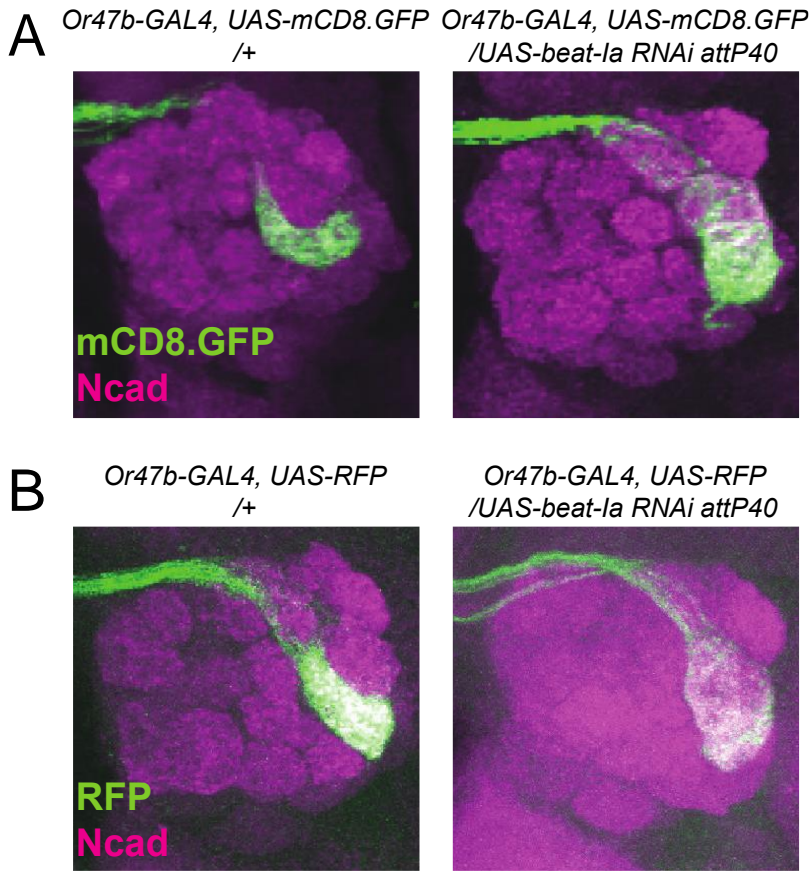


Figure S2. *attP40* over *Or47b-GAL4* recombined with *UAS-reporters* other than *UAS-Syt.GFP* exhibits the same glomerular organization phenotype. *Or47b-GAL4, UAS-mCD8.GFP* (A) and *Or47b-GAL4, UAS-RFP* (B) over the *attP40* derivative showed VA1v glomerular expansion compared with the respective no-*attP40* control. 5-15 brains were examined in each genotype and the phenotypical penetrance is 100% in *attP40* groups.