Staufen mislocalization phenotype at stage 9 Two-tailed P-value upon comparison with vw Genotype 8.9% (n=45) vw

KHC(1-849) flies

phenotype.

Table S2. Increasing and decreasing the KHC dosage respectively reduces and enhances the Staufen mislocalization defects in

FRTG13 Khc27/+ 18.9% (*n*=53) 0.2467 KHC1-849GFPIKHC1-849GFP 54.8% (*n*=73) < 0.0001 KHC1-849GFP/KHC1-849GFP: FRTG13 Khc27/+ 70.9% (n=55) < 0.0001

KHC1-849GFP/KHC1-849GFP: KHC1-975/+ 36.2% (*n*=58) 0.0012 Two-tailed P-value upon comparison with KHC1-849GFP/KHC1-849GFP

Genotype KHC1-849GFP/KHC1-849GFP; FRTG13 Khc27/+ 0.0402 0.0367

KHC1-849GFP/KHC1-849GFP: KHC1-975/+ KHC(1-849)-GFP homozygous flies have a statistically significant Staufen mislocalization phenotype when compared with control flies (yw). Removing a copy of

endogenous Khc (FRTG13 Khc²⁷/+) significantly strengthens this phenotype, whereas adding an extra copy of full-length Khc (KHC1-975) significantly weakens this