

Microtubule Affinity-Regulating Kinase family members differently affect tau phosphorylation and toxicity in a *Drosophila* model

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Supplemental Information

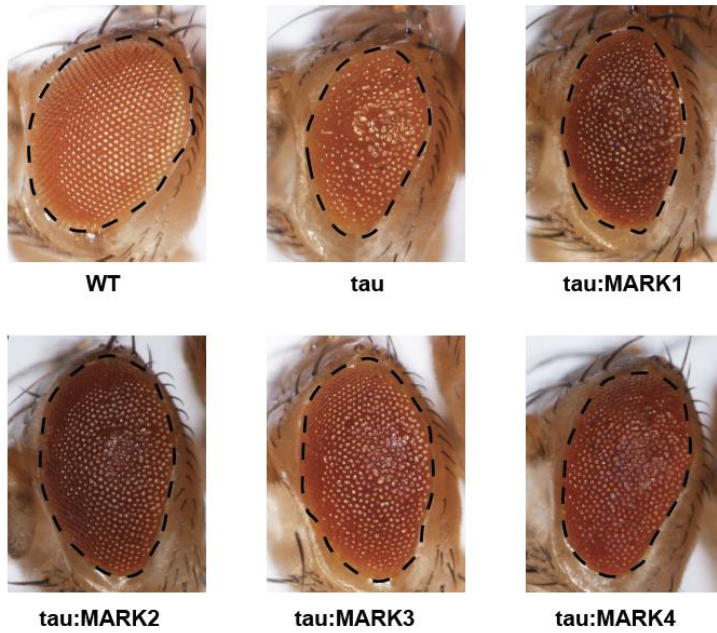
Supplemental Figure 1. Effects of MARKs on the size of eyes expressing human tau

Supplemental Table 1. Flies genotypes used in each experiment

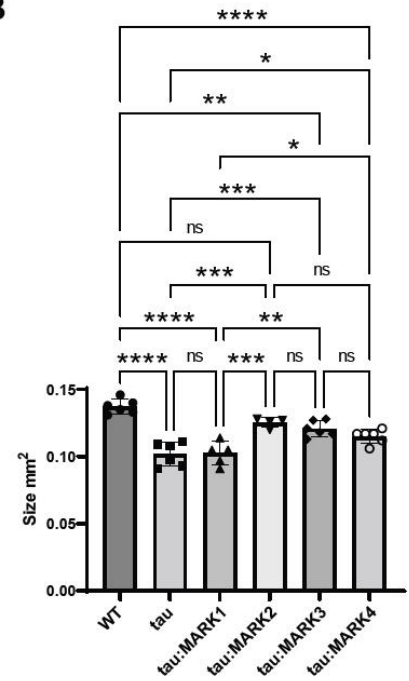
Full-length gels and blots

Figure S1

A



B



Supplemental Figure 1. Effects of MARKs on the size of eyes expressing human tau

(A) Representative images of eyes expressing each MARK alone and those co-expressing each MARK with tau. (B) Co-expression of MARK2, 3, or 4 with human tau increased eye size (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$ by Bonferroni's multiple comparison test, $n = 4-6$). Flies were at three days after eclosion.

Supplemental Table 1. Flies genotypes used in each experiment

Figure	Name	Genotype
Figure 1	control	+/+;gmr-GAL4/+;+/+
	MARK1	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK1
	MARK2	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK2
	MARK3	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK3
	MARK4	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK4
Figure 2	control	+/+;gmr-GAL4/+;+/+
	tau	+/+;gmr-GAL4/+;UAS-tau/+
	tau:MARK1	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK1
	tau:MARK2	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK2
	tau:MARK3	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK3
	tau:MARK4	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK4
Figure 3	tau	+/+;gmr-GAL4/+;UAS-tau/+
	tau:MARK1	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK1
	tau:MARK2	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK2
	tau:MARK3	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK3
	tau:MARK4	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK4
Figure 4	control	+/+;gmr-GAL4/+;+/+
	MARK1	+/+;gmr-GAL4/+;UAS-MARK1
	MARK2	+/+;gmr-GAL4/+;UAS-MARK2
	MARK3	+/+;gmr-GAL4/+;UAS-MARK3
	MARK4	+/+;gmr-GAL4/+;UAS-MARK4
	tau	+/+;gmr-GAL4/+;UAS-tau/+
	tau:MARK1	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK1
	tau:MARK2	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK2
	tau:MARK3	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK3
	tau:MARK4	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK4
Figure S1	control	+/+;gmr-GAL4/+;+/+
	MARK1	+/+;gmr-GAL4/+;UAS-MARK1
	MARK2	+/+;gmr-GAL4/+;UAS-MARK2
	MARK3	+/+;gmr-GAL4/+;UAS-MARK3
	MARK4	+/+;gmr-GAL4/+;UAS-MARK4
	tau	+/+;gmr-GAL4/+;UAS-tau/+
	tau:MARK1	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK1
	tau:MARK2	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK2
	tau:MARK3	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK3
	tau:MARK4	+/+;gmr-GAL4/+;UAS-tau/UAS-MARK4

Immunoblots used for analysis

Figure 1

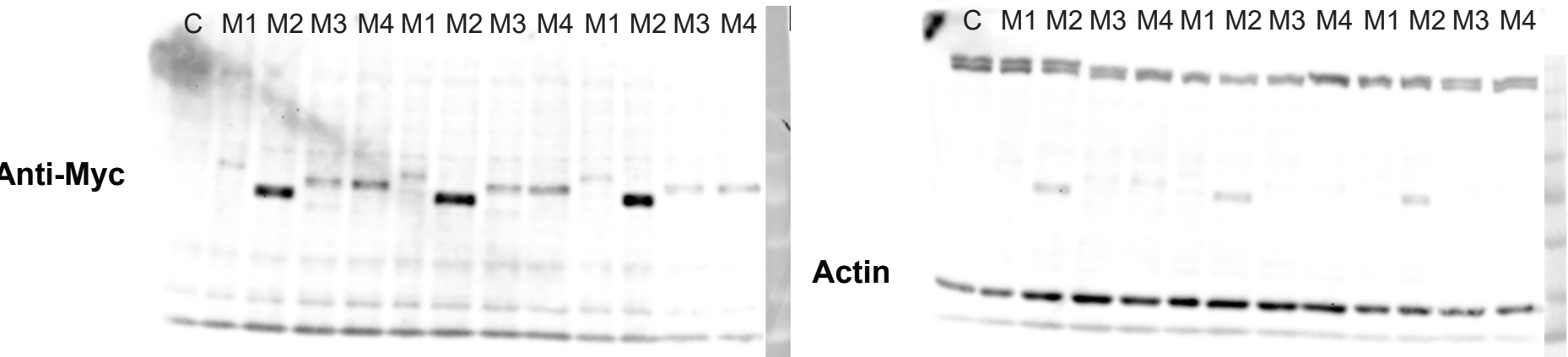


Figure 2

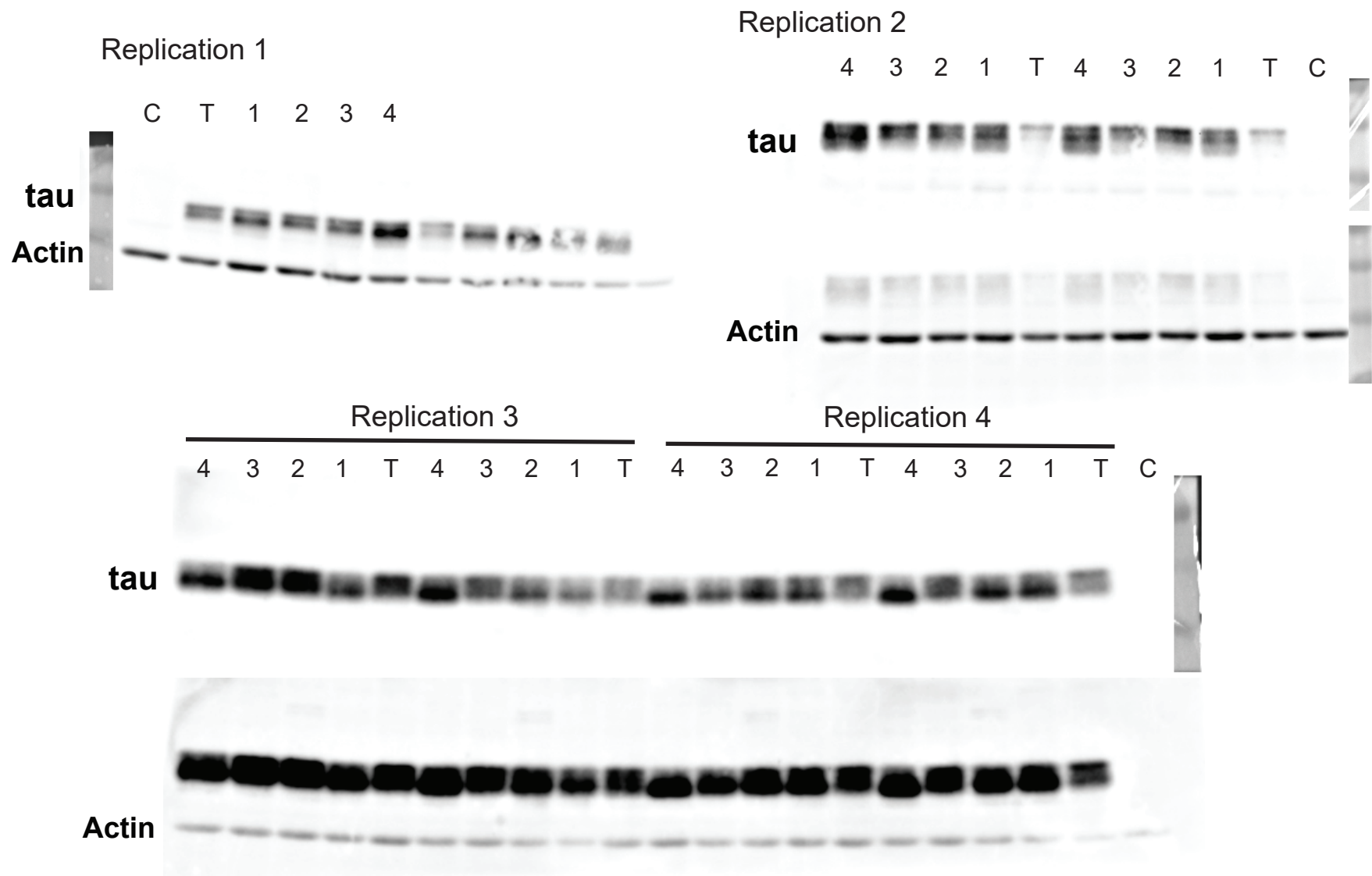


Figure 3

