

**Table S1. Effects of dKDM2 mutation or overexpression on circadian behaviors**

<b>Genotypes</b>	<b>Period (h)</b>	<b>Rhythmicity</b>	<b>Power</b>	<b>N</b>
<i>w<sup>1118</sup></i>	24.9±0.11	87.00%	64.6±4.01	54
<i>dKdm2<sup>2</sup></i>	23.5±0.14	59.30%	44.3±3.82	59
<i>dKdm2<sup>1</sup></i>	23.8±0.16	37.00%	44.0±5.04	54
<i>dKdm2<sup>1</sup>/dKdm2<sup>2</sup></i>	23.8±0.11	81.00%	69.7±6.18	42
<i>TG4/+</i>	24.6±0.06	90.10%	74.4±3.55	71
<i>UAS-dKdm2-EGFP/+</i>	23.8±0.16	100%	66.7±4.20	16
<i>TG4/UAS-dKdm2-EGFP</i>	25.7±0.06	94.70%	82.4±2.16	75
<i>PG4/+</i>	24.7±0.08	76.20%	69.3±3.82	42
<i>PG4/UAS-dKdm2-EGFP</i>	25.6±0.06	96.70%	78.6±2.75	61
<i>TG4/+;pdf-Gal80/+</i>	24.1±0.09	91.20%	70.1±5.57	34
<i>TG4/+;pdf-Gal80/UAS-dKdm2-EGFP</i>	24.7±0.08	92.30%	79.1±4.20	26