# **Supplemental Materials**

Table S1. Analysis of the mitotic parameters in WT and *bubR1-KAN* mutant neuroblasts

Strain	_, , , ,			%	oidy Notes
	Time (min) in		Relative Mitotic	aneuploidy	
(No. of brains)		Mitotic Density (SD) <sup>a</sup>	Density	(SD)	
WT (5)	0	2.22 (0.21)	1	0.23 (0.17)	viable
WT (5)	30	3.61 (0.26)	1.63	NA	NA
WT (5)	60	6.68 (0.38)	3.01	NA	NA
bubR1-KAN(5)	0	2.16 (0.32)	1	0.47 (0.23)	viable
bubR1-KAN(5)	30	1.91 (0.28)	0.88	NA	NA
bubR1-KAN(5)	60	1.84 (0.23)	0.85	NA	NA

NA, not applicable

SD, standard deviation

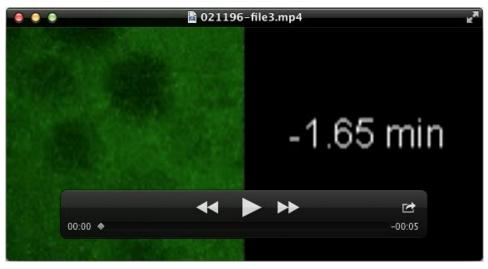
<sup>&</sup>lt;sup>a</sup>Mitotic density is defined as the mean number of cells in mitosis per optic field.

## **Supplementary Information**



#### Movie S1

Mitotic timing in a WT neuroblast. WT *Drosophila* larval neuroblast labeled with GFP-Rod (green). The GFP-Rod channel corresponds to Fig. 2B. Images were acquired by confocal spinning disk microscopy. Frames were taken every 20 s for 9.9 min. The video is shown at 8 frames/s.

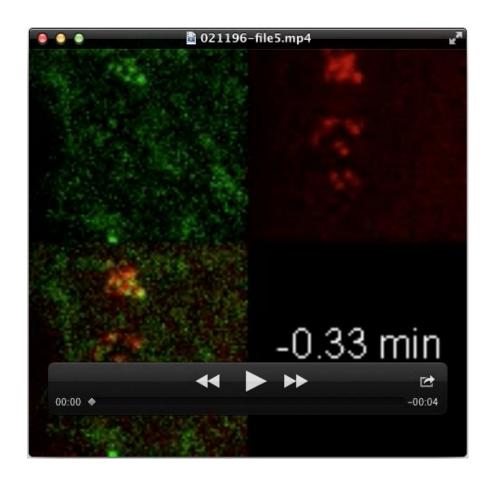


#### **Movie S2**

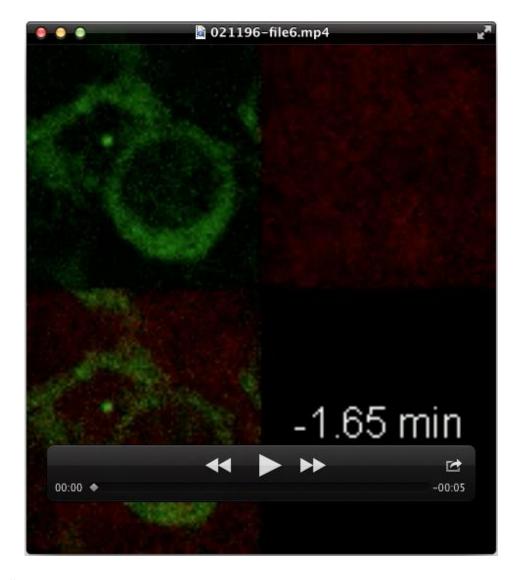
Mitotic timing in a *bubR1-KEN1* mutant neuroblast. *bubR1-KEN1* mutant *Drosophila* larval neuroblast labeled with GFP-Rod (green). The GFP-Rod channel corresponds to Fig. 2C. Images were acquired by confocal spinning disk microscopy. Frames were taken every 20 s for 11.55 min. The video is shown at 8 frames/s.



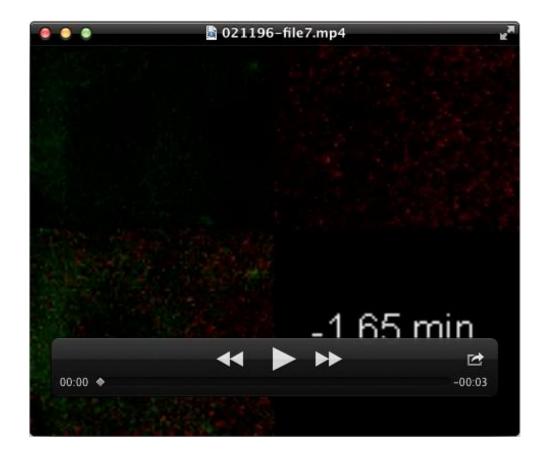
Mitotic timing in a *bubR1-KAN* mutant neuroblast. *bubR1-KAN* mutant *Drosophila* larval neuroblast labeled with GFP-Rod (green). The GFP-Rod channel corresponds to Fig. 2D. Images were acquired by confocal spinning disk microscopy. Frames were taken every 20 s for 5.28 min. The video is shown at 8 frames/s.



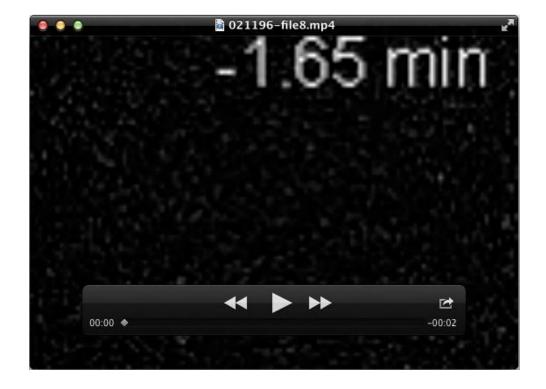
GFP-Fzy dynamics in a WT neuroblast. WT *Drosophila* larval neuroblast labeled with GFP-Fzy (green; top left) and RFP-BubR1-WT (red; top right). Merged images are shown in the bottom left panel. The GFP-Fzy channel corresponds to Fig. 3C. Images were acquired by confocal spinning disk microscopy. Frames were taken every 20 s for 11.22 min. The video is shown at 8 frames/s.



GFP-Fzy dynamics in a *bubR1-KEN1* mutant neuroblast. *bubR1-KEN1* mutant *Drosophila* larval neuroblast labeled with GFP-Fzy (green; top left) and RFP-BubR1-KEN1 (red; top right). Merged images are shown in the bottom left panel. The GFP-Fzy channel corresponds to Fig. 3D. Images were acquired by confocal spinning disk microscopy. Frames were taken every 20 s for 13.20 min. The video is shown at 8 frames/s.



GFP-Fzy dynamics in a *bubR1-KAN* mutant neuroblast. *bubR1-KAN* mutant *Drosophila* larval neuroblast labeled with GFP-Fzy (green; top left) and RFP-BubR1-KAN (red; top right). Merged images are shown in the bottom left panel. The GFP-Fzy channel corresponds to Fig. 3E. Images were acquired by confocal spinning disk microscopy. Frames were taken every 20 s for 6.93 min. The video is shown at 8 frames/s.



Mitotic timing in a *bubR1-E481K* mutant neuroblast. *bubR1-E481K* mutant *Drosophila* larval neuroblast labeled with RFP-Spc25. The RFP-Spc25 channel corresponds to Fig. 4B. Images were acquired by confocal spinning disk microscopy. Frames were taken every 20 s for 5.61 min. The video is shown at 8 frames/s.