White et al., http://www.jcb.org/cgi/content/full/jcb.201012077/DC1

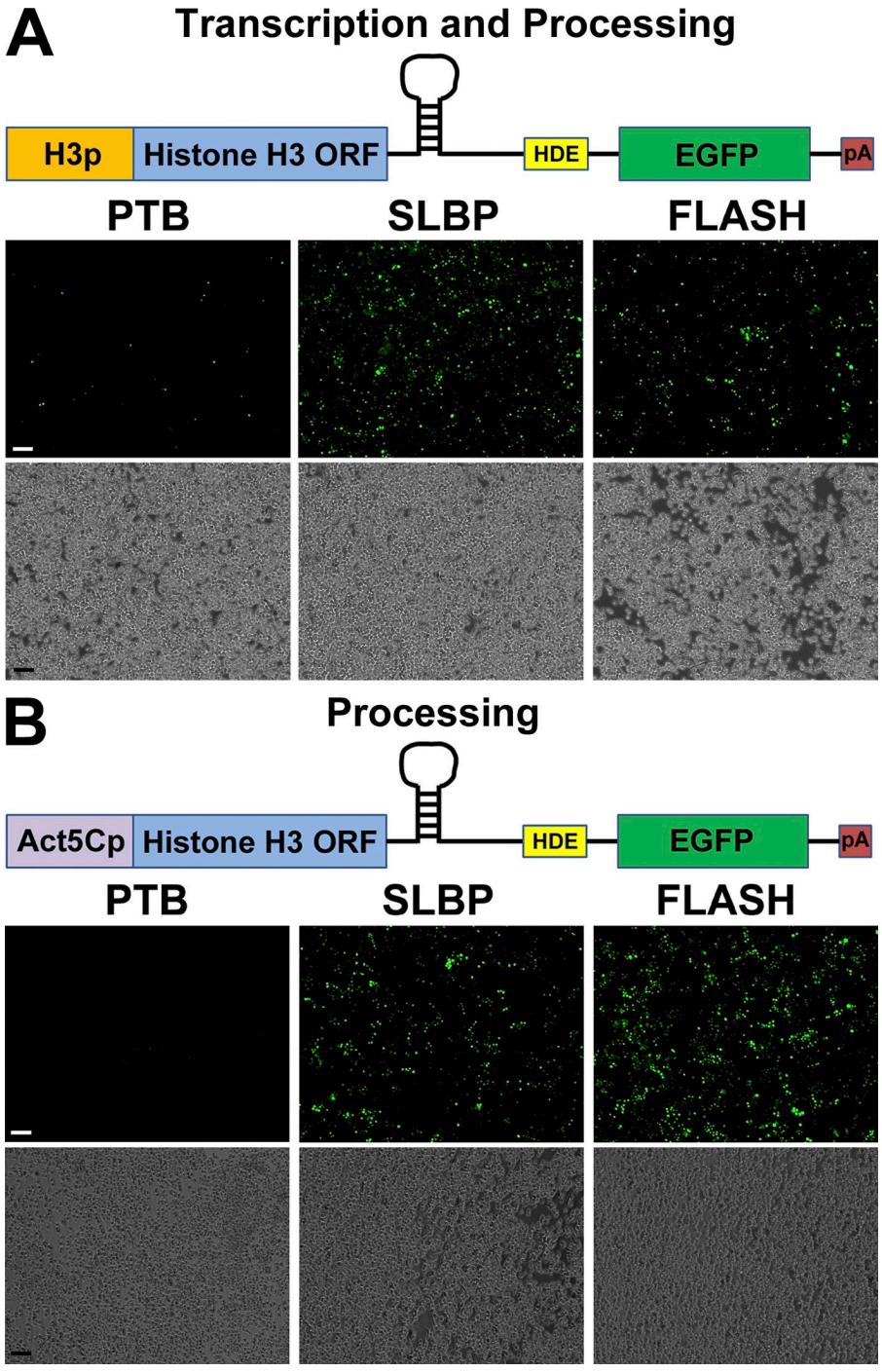

Figure S1. **Histone misprocessing reporters.** (A and B) Dmel-2 cells stably transfected with the indicated GFP histone mRNA misprocessing reporter were treated for 5 d with dsRNAs directed against control (PTB), SLBP, or FLASH dsRNAs. Representative epifluorescence (top) and bright-field (bottom) images are shown. Bars, 60 µm. The reporters result in GFP expression after the depletion of factors required for histone pre-mRNA processing, such as SLBP and FLASH. Note that the reporter with the H3 promoter will not be activated upon depletion of a factor required for histone gene transcription, as shown in Fig. 4 for Mxc. pA, polyadenylation signal; HDE, histone downstream element.

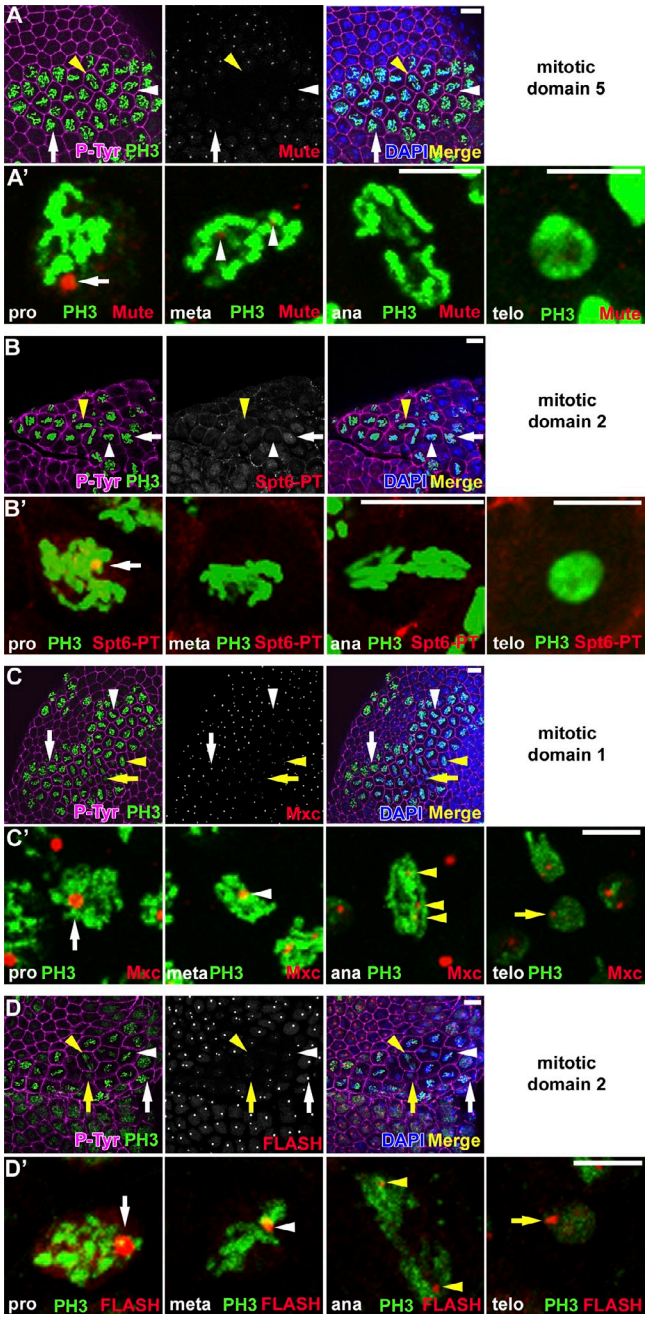

Figure S2. **Mxc and FLASH remain chromosome associated during mitosis.** (A–D) Postblastoderm w^{1118} embryos in cell cycle 14 stained with α–P-Tyr, α-PH3 (marks condensed, mitotic chromatin), DAPI, and α–Mute-LS (A), α-GFP (B), α-Mxc (C), or α-FLASH (D; middle). Prophase (pro; white arrows), metaphase (meta; white arrowheads), anaphase (ana; yellow arrowheads), and telophase (telo; yellow arrows) cells are indicated. Bars, 10 µm. (A′–D′) Single prophase, metaphase, anaphase, and telophase cells are shown in A′, B′, C′, and D′. Note that this figure is identical to Fig. 9 except that α-PH3 is shown in the single cell images (A′–D′) because individual chromatids, and thus mitotic stages, are more easily visualized than with DAPI. Bars, 5 µm.

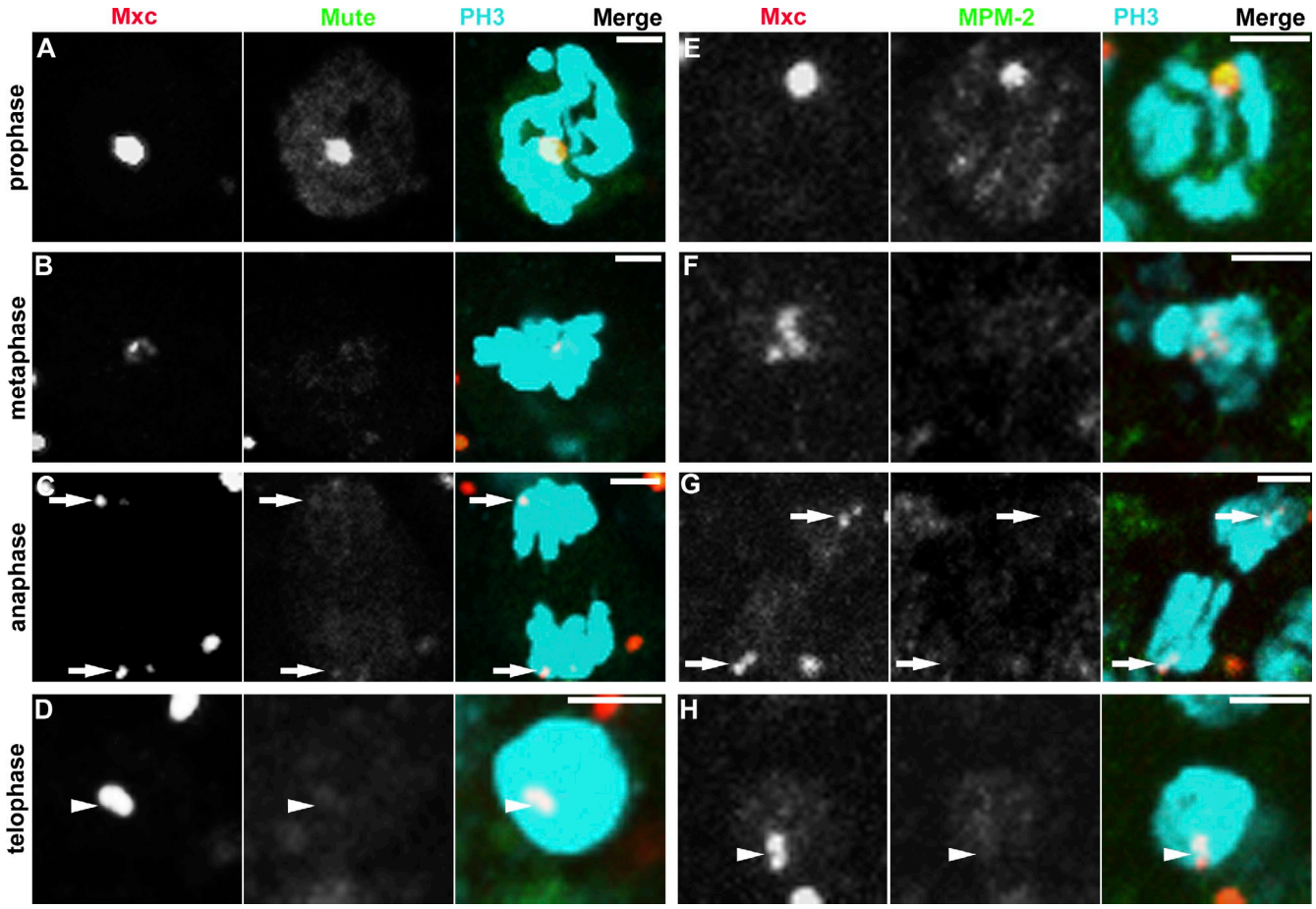

Figure S3. **Mxc remains chromosome associated during mitosis in embryonic and larval cell division cycles containing G1.** (A–H) Shown are w^{1118} larval brain neuroblast cells (A–D) and w^{1118} embryonic cells (E–H) in cell cycle 16 stained with α-PH3, α-Mxc, and α–Mute-LS (larval brains) or MPM-2 (embryos). Single prophase, metaphase, anaphase, and telophase cells are shown in A and E, B and F, C and G, and D and H, respectively. Arrows and arrowheads indicate foci of Mxc in anaphase and telophase cells, respectively. Bars, 2 µm.

Table S1 is presented as an Excel file and shows RNAi screening data.

Table S2 is presented as an Excel file and shows validation and secondary screen z scores.

References

Björklund, M., M. Taipale, M. Varjosalo, J. Saharinen, J. Lahdenperä, and J. Taipale. 2006. Identification of pathways regulating cell size and cell-cycle progression by RNAi. *Nature*. 439:1009–1013. doi:10.1038/nature04469

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