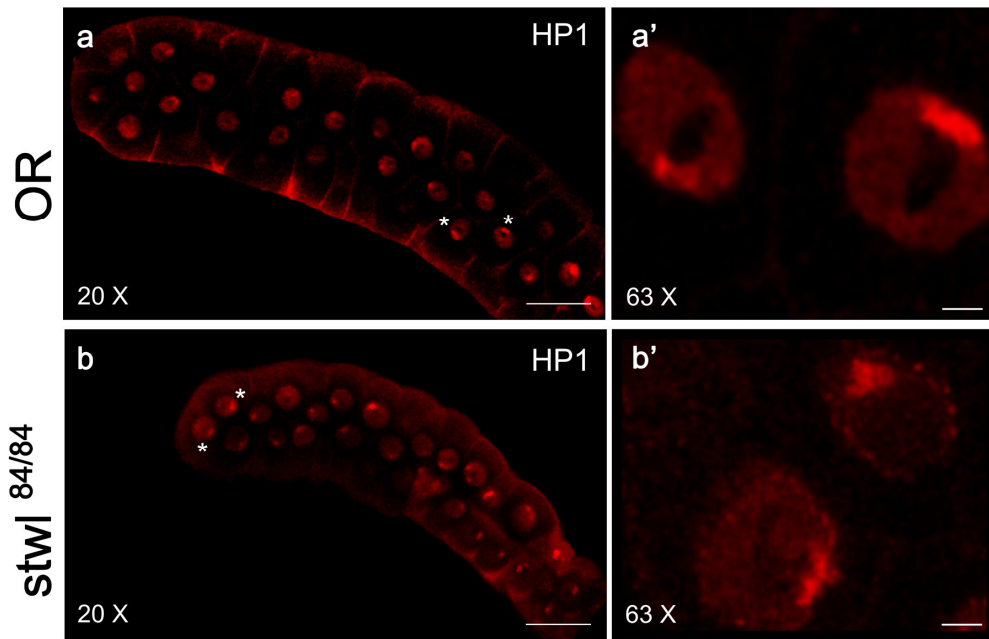


**Supplementary Figure 1.**

**Stwl-GFP is detected in interphase nuclei of salivary glands of a Stwl-GFP expressing line.**

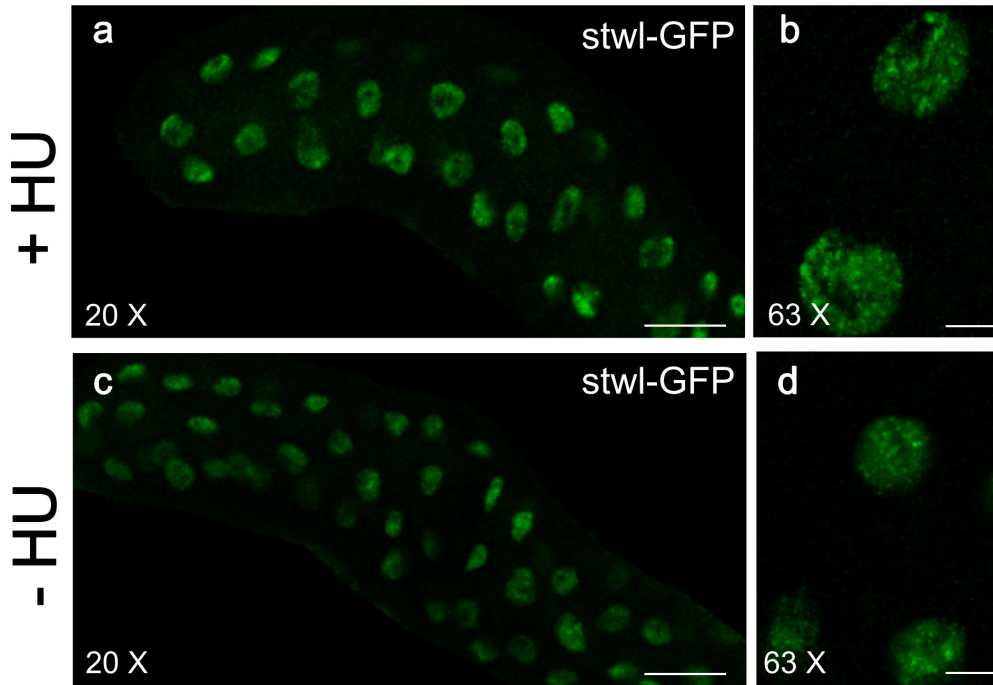
A Stwl-GFP expressing line (CA07249) was obtained from the Carnegie Protein Trap Library (Buszczak et al., 2007). Salivary glands were dissected from the Stwl-GFP expressing line and wild type (OR) third instar larvae were used as a control. Salivary glands were fixed with 4 % formaldehyde for 30 min, washed 3 times in PBST for 15 min each and stained with DRAQ-5, 1:1000 dilution (Biostatus, UK) for 10 min to visualize the nucleus (a,c).The fluorescence was detected with a Confocal Laser Scanning Microscope (Leica TCS SP2, Leica microsystem, Heidelberg, Germany). Images are averaged single scans, modified using Jasc Paintshop Pro 9 software. In salivary glands of the Stwl-GFP expressing line a GFP signal was observed in the nuclei (d). No GFP signal was observed in salivary glands of wild types (b). In addition, a higher resolution of Stwl-GFP is presented (e). Scale bar represents 100 $\mu$ m in a-c; scale bar represents 20  $\mu$ m in e.



**Supplementary Figure 2**

**Localization of HP1 is comparable in salivary glands of wild types and *stwl*<sup>84</sup> mutants.**

Salivary glands were dissected from homozygous *stwl*<sup>84</sup> and control (OR) third instar larvae. Glands were then fixed with 4 % formaldehyde for 30 min, washed 3 times in PBST for 15 min each and blocked in 5 % BSA for 1 hour. Samples were incubated with mouse anti-HP1 (1:200 diluted) (DSHB, C1A9-c) overnight at 4<sup>o</sup> C and washed 3 times with PBST (0.1% Tween). To visualize HP1, a Cy3-conjugated anti-mouse antibody (Amersham, Biosciences, UK) (1:400 diluted) was used. The fluorescence was detected with a Confocal Laser Scanning Microscope (Leica TCS SP2, Leica microsystem, Heidelberg, Germany). Images are averaged single scans, modified using Jasc Paintshop Pro 9 software. HP1 localization in salivary glands of wild types (a and a') is comparable to the localization of HP1 in salivary glands of *stwl*<sup>84</sup> mutants (b, b'). Scale bar represents 100µm in a and b; scale bar represents 20µm in a' and b'. a' and b' are images obtained with a higher magnification of nuclei of salivary glands of wild types and *stwl*<sup>84</sup> mutants respectively.



**Supplementary Figure 3**

**Localization of Stwl-GFP does not change after HU treatment.**

Larvae of the Stwl-GFP expressing line were raised on control food and on food containing various concentrations of HU (50-200 mM HU). Salivary glands were dissected and immediately mounted onto coverslips and localization of Stwl-GFP was examined using a Confocal Laser Scanning Microscope (Leica TCS SP2, Leica microsystem, Heidelberg, Germany). Images are averaged single scans, modified using Jasc Paintshop Pro 9 software. No difference in localization of Stwl-GFP was observed after up to 200 mM HU treatment (a,b) as compared to no treatment (c,d). b and d are images of salivary gland nuclei obtained with a higher magnification after HU treatment or under control conditions respectively. Scale bar represent 100  $\mu$ m in a and c. Scale bar represents 20  $\mu$ m in b and d.

## Reference

1. Buszczak, M., S.Paterno, D.Lighthouse, J.Bachman, J.Planck, S.Owen, A.D.Skora, T.G.Nystul, B.Ohlstein, A.Allen, J.E.Wilhelm, T.D.Murphy, R.W.Levis, E.Matunis, N.Srivali, R.A.Hoskins, and A.C.Spradling. 2007. The carnegie protein trap library: a versatile tool for Drosophila developmental studies. *Genetics* 175:1505-1531.