

Legends for Supplementary Figures:

Supplementary Figure 1. Hb does not directly activate *hb* transcription in neuroblasts.

Related to Figure 2

Ventral view of wild type stage 11 embryo (left) hybridized with mRNA probe against 3'UTR of the endogenous *hb* transcript, which is not present in the *UAS-hb* construct and thus specifically detects endogenous *hb* RNA. Overexpression of ectopic Hb protein in neuroblasts (right, image taken from E13 embryo which does not express any Hb protein in neuroblasts) does not activate endogenous *hb* transcription (middle, *hb* mRNA expression is similar to that of the same stage wild type embryo). Midline, dotted line.

Supplementary Figure 2. *lamin*^{sz18} mutants show decreasing lamin protein levels at E11-E13.

Related to Figure 5

(A-C) Lamin protein levels decrease by E13 in *lamin*^{sz18} mutants.

Supplementary Figure 3. Hb, Svp, Dan expression are unchanged in *lamin*^{sz18} mutants.

Related to Figure 5

Hb, Svp and Dan expression all display the same temporal dynamics in *lamin*^{sz18} mutants as they do in wild type embryos.

Supplementary Figure 4. Downregulation of Dan neuroblast expression is correlated with the *hb* gene movement to the nuclear periphery.

Related to Figure 6

(A-D) Dan (green) nuclear protein is detectable in all neuroblasts (Miranda, magenta) until it is rapidly downregulated at stage 12 (C), the stage when *HA:hb* and *hb* loci move to the nuclear periphery.

Supplementary Figure 5. *hb* gene positioning and NB7-1 competence window is unchanged in *dan dan*^{ex56} mutants.

Related to Figure 6

(A) HA:Hb+ (green) U motoneurons (marked by Eve, red) were detected in embryos with prolonged ectopic Hb protein expression in neuroblasts in either wild type or *dan* mutants.

(B) quantified results of (A). Numbers scored are as follows: wild type N=6 embryos (99 hemisegments), *dan dan*^{ex56} mutants N=4 embryos (78 hemisegments).

(C,D) *dan dan*^{ex56} mutants lack detectable Dan protein (C) and have no significant change in the percentage of *hb* loci at the nuclear periphery at stage 11 (D). Error bars = SD. n.s. = not significant

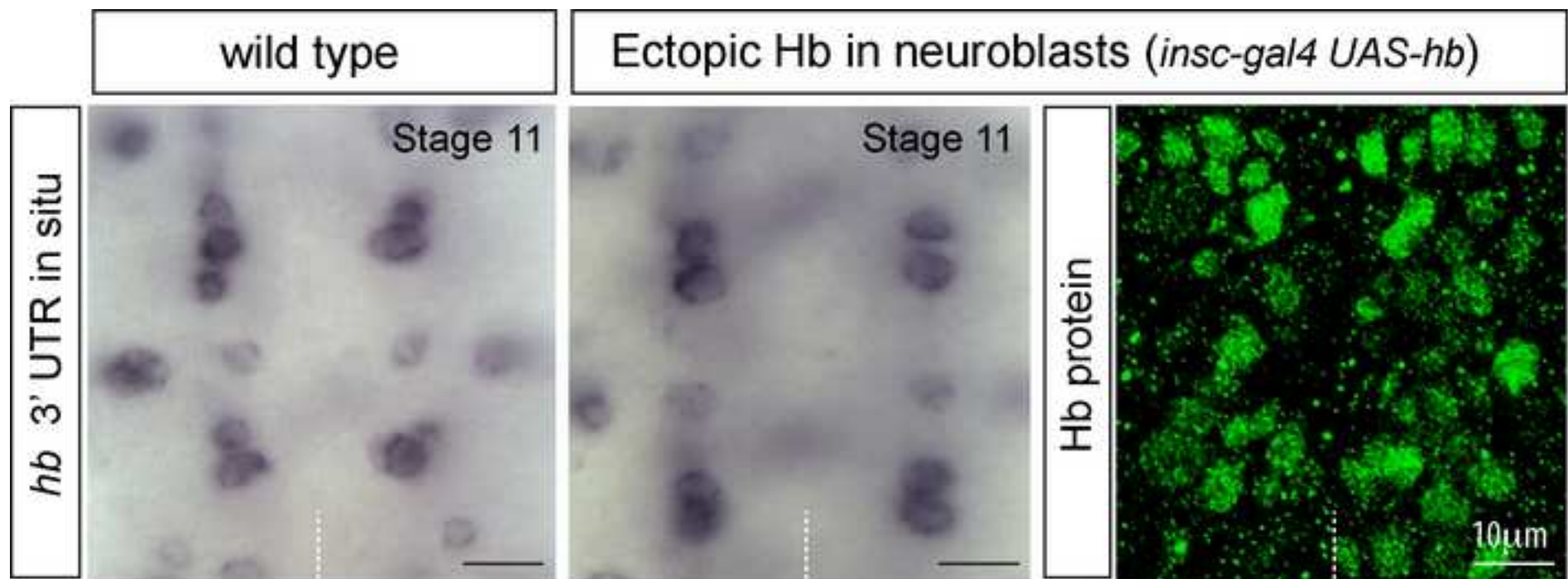


Figure S1 Kohwi/Doe

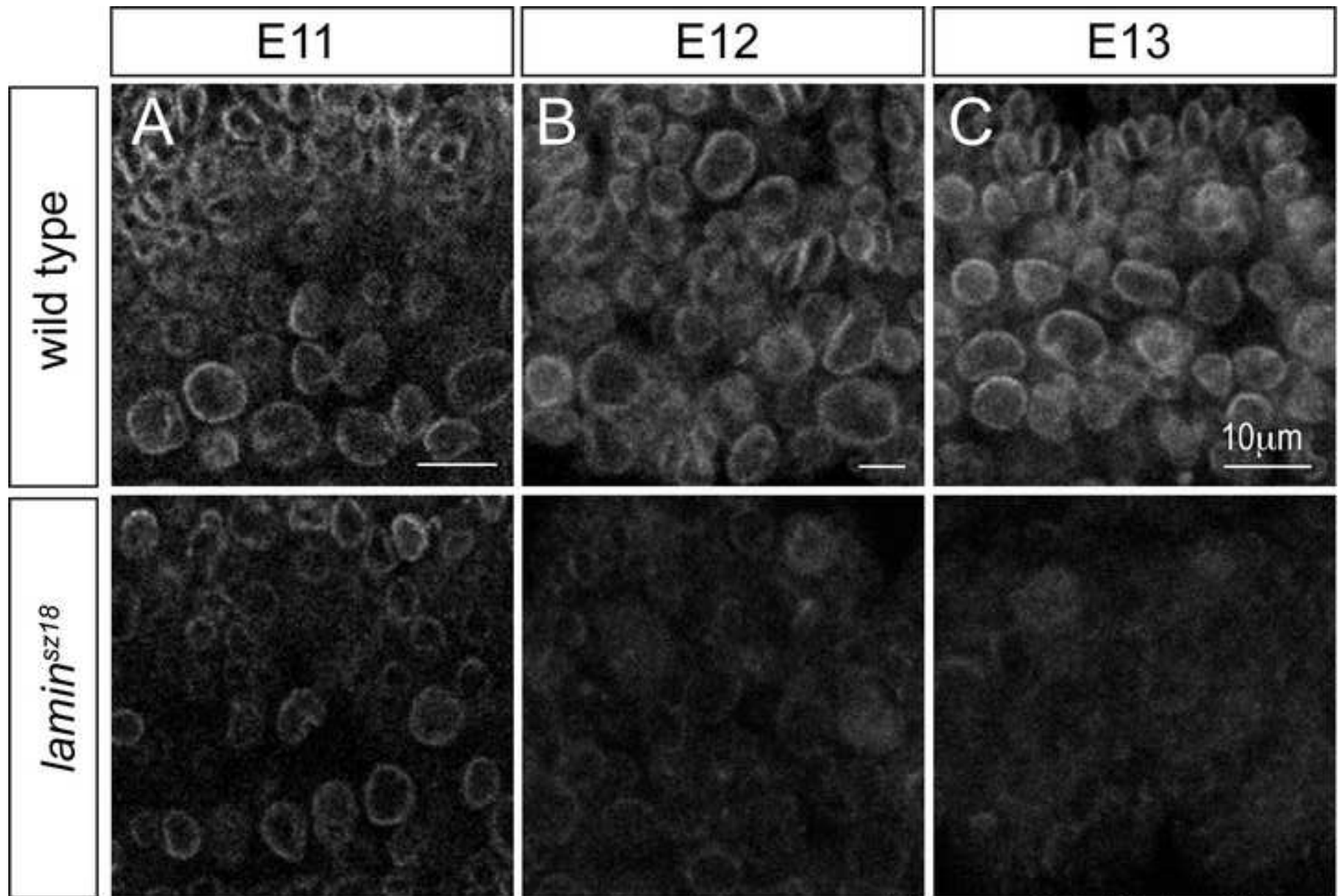


Figure S2 Kohwi/Doe

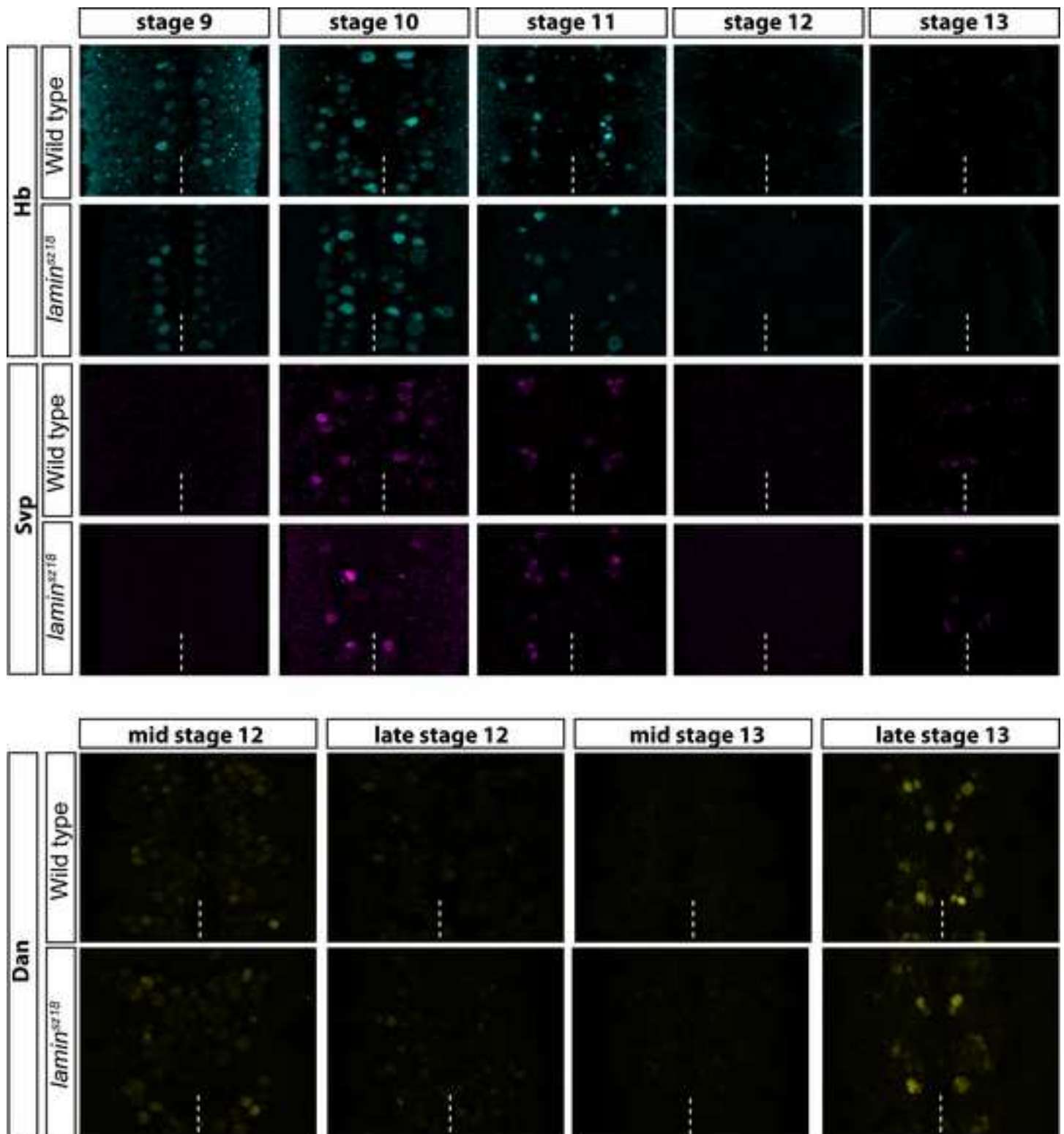


Figure S3

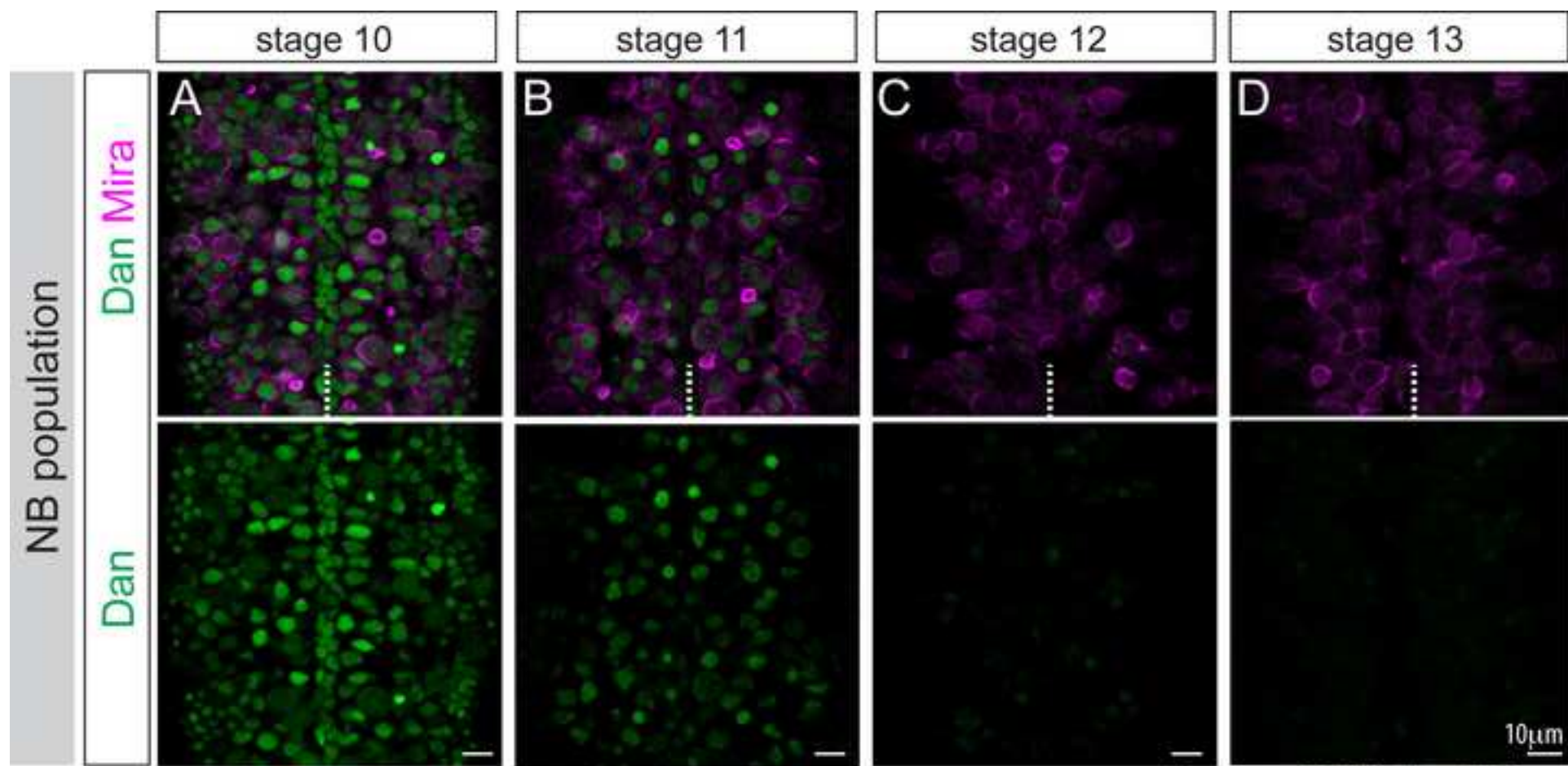


Figure S4 Kohwi/Doe

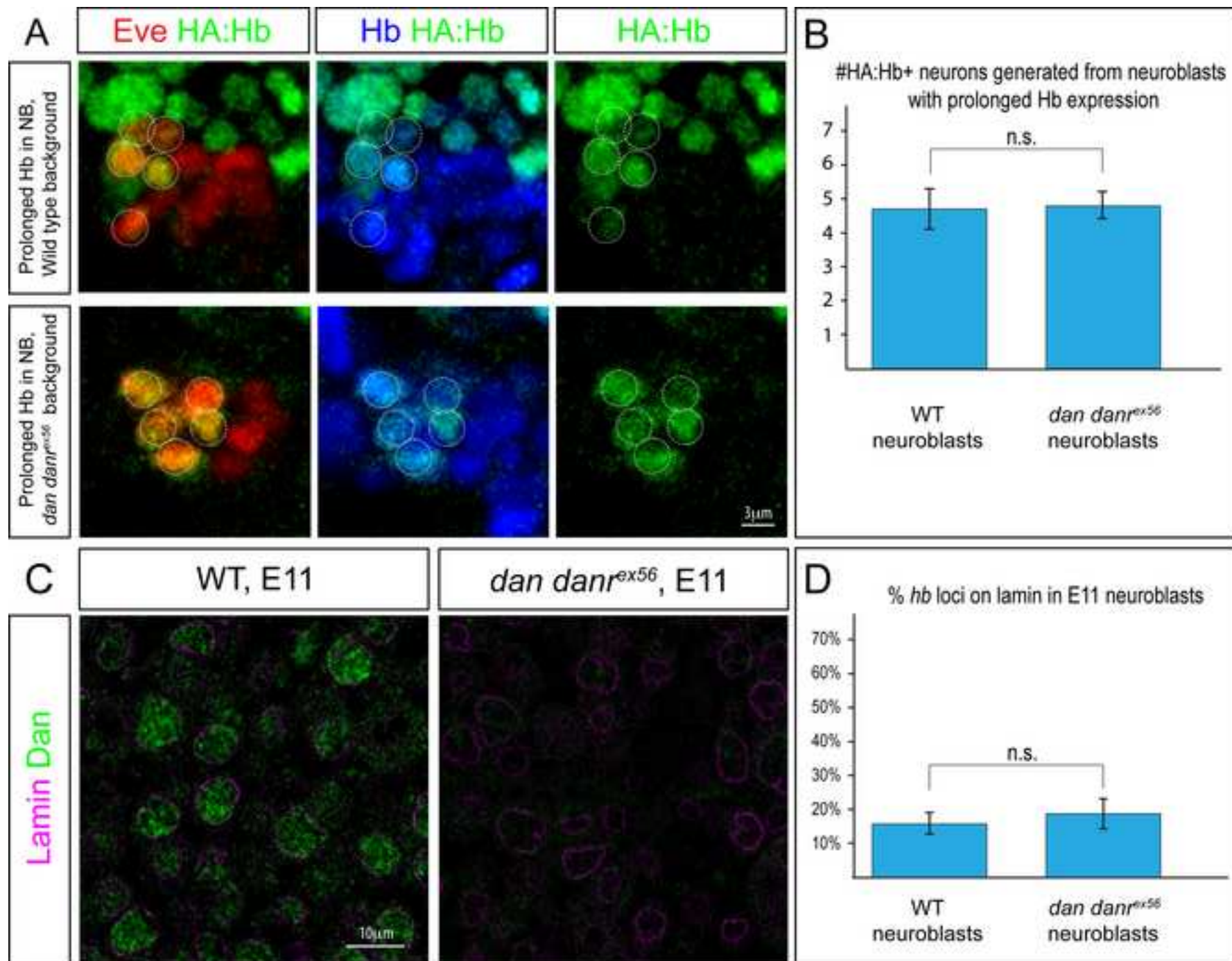


Figure S5 Kohwi/Doe