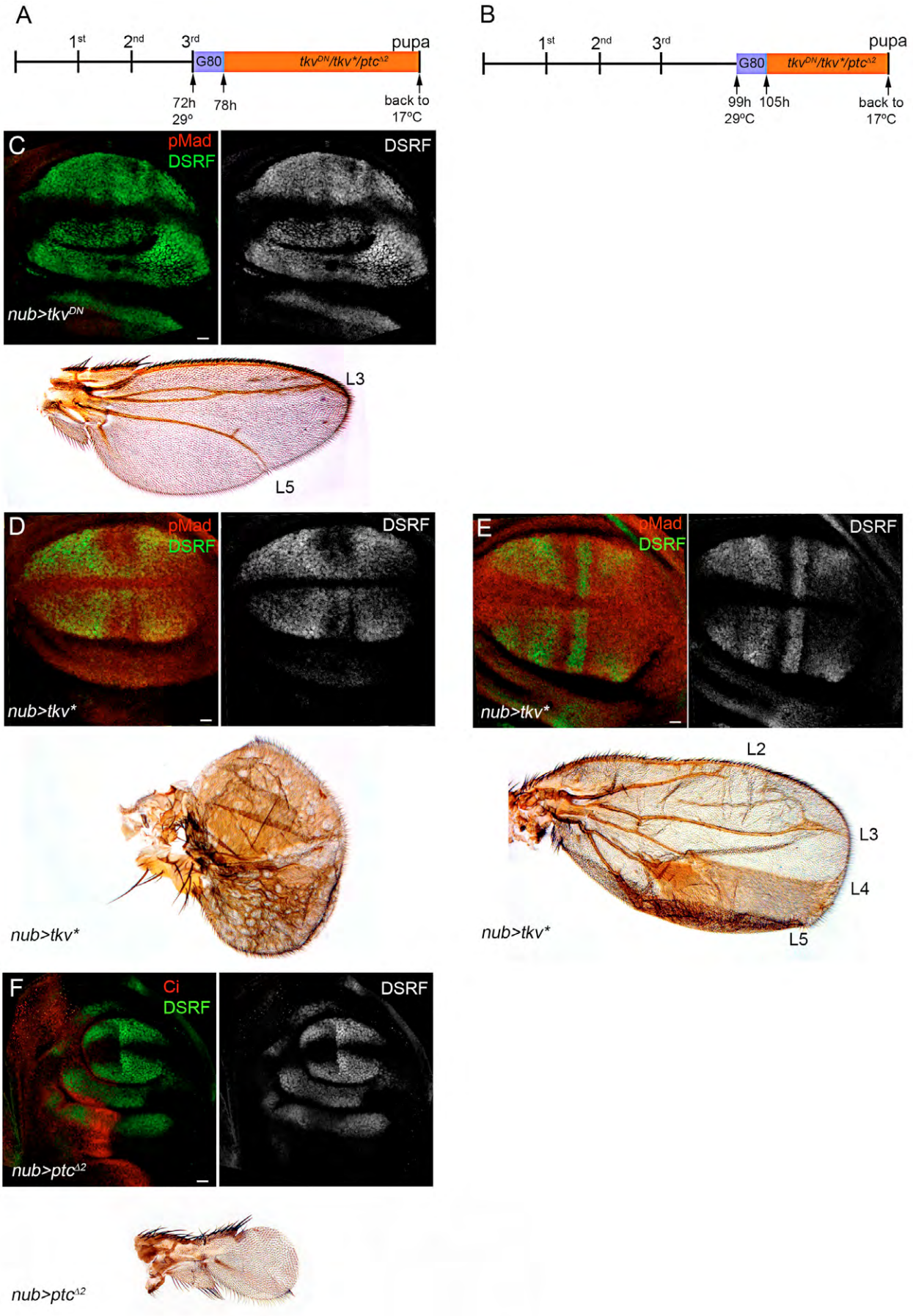

Fig. S1. Genetic alteration of Dpp and Hh signaling in early versus late third instar wing discs. (**A**,**B**) Temperature changes performed to activate transgene expression over time (first, second and third larval instars; pupa: onset of pupariation). (**C**) *nub>tkv*^{DN} at 78 hours. (**D**) *nub>tkv** disc at 78 hours. (**E**) *nub>tkv** at 105 hours. (**F**) *nub>ptc*$^{\Delta 2}$ at 78 hours. Scale bars: 15 µm.

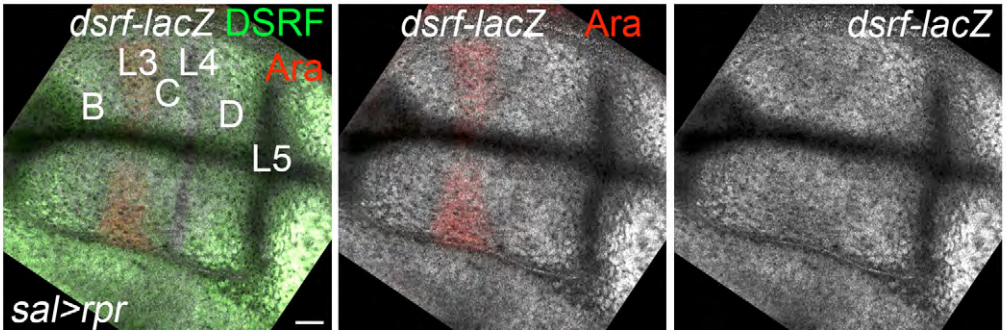

Fig. S2. Cell lineage of *dsrf-lacZ* in *sal>rpr* discs 20 hours after cell death. The whole central domain was regenerated. Note that all B-L3-C-L4-D regenerated domains contained *dsrf-lacZ*. Only L5 lacked *dsrf-lacZ*, suggesting that this vein did not undergo respecification. Green, anti-DSRF; red, anti-Ara; gray, *dsrf-lacZ*. Scale bar: 15 μm.

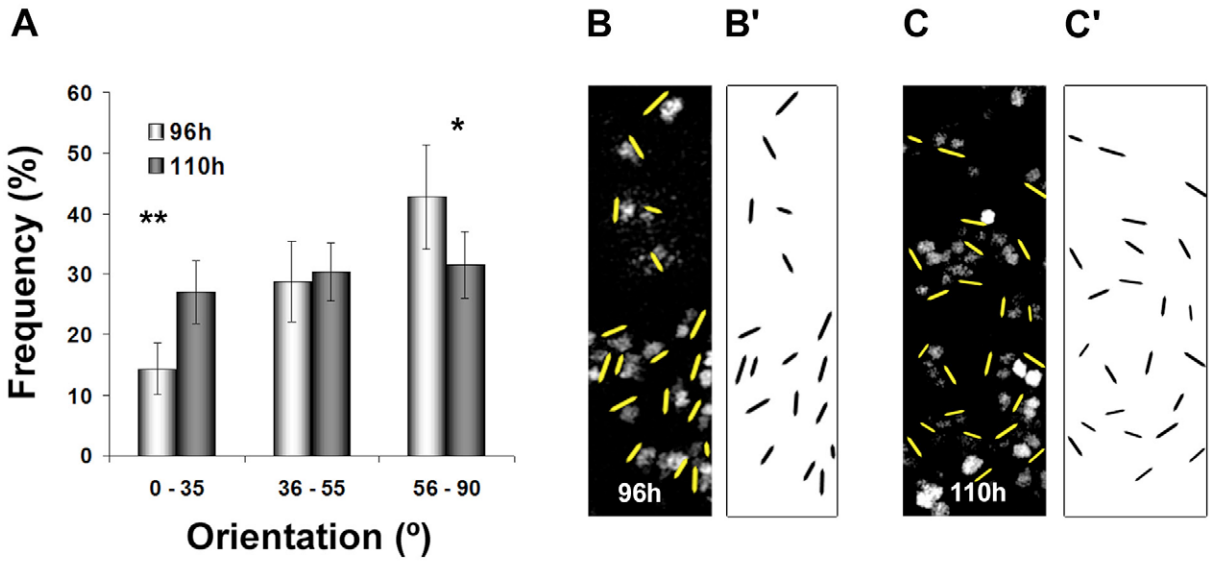

Fig. S3. Clonal analysis in growing discs. (**A**) Distribution of two cell clones with respect to the DV boundary in the *ptc* domain of wing discs at 96 and 110 hours of development. (**B**,**B′**) Two cell clones in a 96-hour disc. (**C**,**C′**) Two cell clones in a 110-hour disc. Yellow and black lines in both B and C indicate clone orientation. **P*<0.001, ***P*<0.005, Student's *t*-test.