Figure S6. Ecdysone regulates larval growth and developmental time. (A) Ecdysone levels are rate-limiting for imaginal disc growth during the systemic NOSDAC misexpression. 20E rescues growth restriction induced by hs>NOSDAC compared to control ethanol only fed larvae (EtOH). Larvae were heat shocked at 76hr and eye discs were measured at 104hrs AED. (B) Ecdysone rescues developmental delay induced by Bx>eiger, hs>NOS, and phm>NOS. Measurement of time to pupariation for larvae raised in food with supplemental ecdysone (20E) or control food (EtOH). (C) Supplemented 20E only significantly reduces larval tissue growth in Tub>dilp8 larvae. Measurement of larval growth at 104hr AED in larvae raised in food with supplemental ecdysone (20E) or control food (EtOH) is shown. (D) Non-additive effects of wing damage and ecdysone reduction on eye imaginal disc growth suggest convergent mechanisms. Measurement of eye imaginal disc size in larvae with targeted wing damage (Bx>eiger) and control larvae (Bx>GFP). Larvae were transferred at 80hr to food lacking steroid ecdysone precursor (erg6/+) or control food (erg6/–). (E) Restriction of ecdysone synthesis (erg6/–) extends the time to pupation when compared to permissive synthesis conditions (erg6/+) for both control (Bx>GFP) and Bx>eiger. (F) erg6/– inhibition of ecdysone increases the growth rate of larval tissues. Measurements of imaginal disc growth and larval growth were at 104hr AED. Statistical analysis: A, C, D, and F mean +/- SD. B and E, triplicates +/- SEM. * p<0.05, ** p<0.01, ***p<0.0005, ****p<0.001 calculated by two-tailed Student’s t-test.