Supplemental Data

Compensatory Proliferation Induced by Cell Death in the Drosophila Wing Disc Requires Activity of the Apical Cell Death Caspase Dronc in a Nonapoptotic Role

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Supplemental Experimental Procedures

Fly Strains and Constructs
All crosses and stocks were maintained at 25°C. The following fly stocks were used: w1118, En-Gal4, UAS-Hid, UAS-P35 [S1], UAS-DroncC318S [S2], UAS-HidAla5 [S3], and UAS-Dronc #80 [S4]. To generate double-stranded RNA corresponding to the coding region of DIAP1, we amplified a 605 bp fragment of DIAP1 by using primers 5'-EcoR1-GAA CAG CAC CTT CTG CTC TGG CTA AG-3' and 5'-Xho1-BamH1-TTT GAG GAC TTG S.Y., and Hay, B.A. (2000). The Drosophila caspase DRONC

Immunocytochemistry
Conditions for immunocytochemistry and confocal microscopy were as described in [S1, S6]. Antibodies were used at the following concentrations: purified rabbit anti-Dronc (1:50) [S7], mouse anti-DIAP1 (1:400) [S1], mouse anti-P35 (1:100) [S1], rabbit anti-P35 (1:1,000) (Biocarta); rabbit anti-Hid (1:1,000) [S1], mouse anti-Wingless (1:30) (Developmental Studies Hybridoma Bank), and mouse anti-Phospho Histone (1:50) (Cell Signaling Technology).

Supplemental References

Figure S2. Wingless Levels Are Regulated by Cell Death Signaling
Confocal images of wing discs from third-instar larvae of various genotypes. All discs are stained with anti-Wingless (red). (A) Wing disc of genotype UAS::p35/en::Gal4. (B) Wing disc of genotype UAS::Hid,UAS::p35/en::Gal4. (C) Wing disc of genotype UAS::DroncC318S;UAS::Hid,UAS::p35/en::Gal4. (D) Wing disc of genotype UAS::DIAP1-RNAi;UAS::p35/ptc::Gal4. (E) Wing disc of genotype UAS::Dronc;UAS::p35/ptc::Gal4. Wingless levels in the posterior compartment are increased in the presence of Hid and p35 (B) but not p35 alone (A). This increase requires Dronc activity (C). Loss of DIAP1 alone, in the presence of p35, does not result in an increase in Wingless levels (D), whereas expression of Dronc with p35 does (E).
cleaves following glutamate or aspartate and is regulated by DIAP1, HID, and GRIM. J. Biol. Chem. 275, 27084–27093.


