# Supplementary information



# Figure S1. Depletion of PBAP complex subunits does not synergize with Yki.

Confocal micrographs of wing discs expressing the indicated combinations of UAStransgenes. Discs were labeled with *UAS-GFP* to mark the transgene-expressing tissue (green) and DAPI (red) to outline the tissue (A-D). Scale bars:  $100\mu$ m. (E) Quantification of tissue size (*ap>Yki* versus *ap>Yki+PBAP*<sup>RNAis</sup>, unpaired t-test: not significant).





Confocal micrographs of wing discs expressing the indicated combinations of UAStransgenes. Discs were labeled with *UAS-GFP* to mark the transgene-expressing tissue (green) and DAPI (blue) to outline the tissue. Discs were labeled with antibody to Mmp1 protein (red). The Mmp1 channel is shown separately below in grey.

(A-D) discs coexpressing BAP complex UAS-RNAi transgenes together with UAS-Yki. (E-

H) Expression of the BAP complex UAS-RNAi transgenes alone. Scale bars: 100µm.



## Figure S3. Tissue hyperplasia in discs overexpressing EGFR and Yki.

Confocal micrographs of wing discs expressing the indicated combinations of UAStransgenes. Discs were labeled with *UAS-GFP* to mark the transgene-expressing tissue (green) and DAPI (red) to outline the tissue. EGFR and Yki expressing discs are similar in appearance, with the overgrown dorsal tissue thrown into folds that disturb the normally flat organization of the imaginal disc. Scale bars: 100µm.





#### Figure S4. Apoptosis caused by BAP-complex depletion.

Confocal micrographs of wing discs expressing the indicated combinations of UAStransgenes. Discs were labeled with *UAS-GFP* to mark the transgene-expressing tissue (green) and DAPI (blue) to outline the tissue. (A-E) *reaper-lacZ* is shown in red, and grey in the panels below. (F-J) Discs were labeled with antibody to the activated form of Caspase3 (red, grey in the panels below). (K-O) Effect of blocking apoptosis by expression of the baculovirus p35 protein in combination with BAP-complex depletion. Scale bars: 100µm.



Figure S5. Effects of BAP complex depletion on expression of Yki target genes. Confocal micrographs of wing discs expressing the indicated combinations of UAStransgenes. Discs were labeled with DAPI (blue) to outline the tissue and with UAS-GFP to mark the transgene-expressing tissue (green). (A-E) CyclinE-lacZ transgene expression (red). (F-J) DIAP1-lacZ transgene expression (red). (K-O) bantam-lacZ transgene expression (red). The LacZ channel is shown separately below in grey. Scale bars: 100µm.



#### Figure S6. Dpp expression in BAP complex depleted discs.

Confocal micrographs of wing discs expressing the indicated combinations of UAStransgenes. Discs were labeled with *UAS-GFP* to mark the transgene-expressing tissue (green) and DAPI (blue) to outline the tissue. (A-E) *dpp* expression in BAP complex depleted discs. (F-J) *dpp* expression in *Yki+BAP<sup>RNAi</sup>* tumors. *dpp-lacZ* transgene expression is shown in red, and grey in the panels below. Scale bars: 100µm.



## Figure S7. Wg expression in BAP complex depleted discs.

Confocal micrographs of wing discs expressing the indicated combinations of UAStransgenes. Discs were labeled with *UAS-GFP* to mark the transgene-expressing tissue (green) and DAPI (blue) to outline the tissue. (A-E) Wg expression in BAP complex depleted discs. (F-J) Wg expression in *Yki+BAP*<sup>RNAi</sup> tumors. Discs were labeled with antibody to Wg protein (red, grey in the panels below). Scale bars: 100µm.

Figure	Order	Genotype
	А	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /+
Figure 1	В	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /+
0	С	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Brm <sup>RNAi(v33720)</sup>
	D	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Snr1 <sup>RNAi(v12645)</sup>
	Е	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Bap111 <sup>RNAi(v37682)</sup>
	F	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-mor <sup>RNAi(v6969)</sup>
	G	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-osa <sup>RNAi(v7810)</sup>
	Н	Above genotypes
	A, H, K, M, N	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80ts/+
Figure 2	B, I, L, O, P	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Brm <sup>RNAi(v33720)</sup>
0	С	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Snr1 <sup>RNAi(v12645)</sup>
	D	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Bap111 <sup>RNAi(v37682)</sup>
	Е	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-mor <sup>RNAi(v6969)</sup>
	F	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-osa <sup>RNAi(TRIP,JF01207)</sup>
	G	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /+
	J	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> / UAS-Brm <sup>RNAi(v33720)</sup>
	А	apGal4, UAS-mCD8:GFP/+; UAS-EGFR, tub-Gal80 <sup>ts</sup> /+
Figure 3	В	apGal4, UAS-mCD8:GFP/+;
0		UAS-EGFR, tub-Gal80 <sup>ts</sup> / UAS-Brm <sup>RNAi</sup> (v33720)
	С	apGal4, UAS-mCD8:GFP/+;
		UAS-EGFR, tub-Gal80 <sup>ts</sup> / UAS-Snr1 <sup>RNAi (v12645)</sup>
	D	apGal4, UAS-mCD8:GFP/+;
		UAS-EGFR, tub-Gal80 <sup>ts</sup> / UAS-Bap111 <sup>RNAi (v37682)</sup>
	Е	apGal4, UAS-mCD8:GFP/+;
		UAS-EGFR, tub-Gal80 <sup>ts</sup> / UAS-mor <sup>RNAi</sup> (v6969)
	F	apGal4, UAS-mCD8:GFP/+;
		UAS-EGFR, tub-Gal80 <sup>ts</sup> / UAS-osa <sup>RNAi</sup> (v7810)
Figure 4	А	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /reaper-LacZ
	В	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> /reaper-LacZ, UAS-Brm <sup>RNAi(v33720)</sup>
	С	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /+
	D	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> / UAS-Brm <sup>RNAi(v33720)</sup>
	Е	(left)apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> / UAS-Brm <sup>RNAi(v33720)</sup>
		(middle)apGal4, UAS-mCD8:GFP/UAS-p35; tub-Gal80 <sup>ts</sup> / UAS-

Table S1. Detailed genotypes for each figure

	1	D DM4(6.00700)
		$Brm^{RNAI(v33720)}$
		(right)apGal4, UAS-GPP/+; UAS-YRI, tub-Gal80 <sup>ts</sup> /UAS-Brm <sup>AlVAI</sup> (V33720)
Figure 5	A	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /+
	В	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> / UAS-Brm <sup>KNAI</sup> (V <sup>33720</sup> )
	С	apGal4, UAS-mCD8:GFP/ CyclinE-LacZ; tub-Gal80 <sup>ts</sup> /+
	D	apGal4, UAS-mCD8:GFP/ CyclinE-LacZ;
		tub-Gal80 <sup>ts</sup> / UAS-Brm <sup>RNAi(v33720)</sup>
	Е	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> / DIAP1-LacZ
	F	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> / UAS-Brm <sup>RNAi(v33720)</sup> , DIAP1-LacZ
	G	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /bantam-LacZ
	Н	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> / UAS-Brm <sup>RNAi(v33720)</sup> , bantam-LacZ
	А	apGal4, UAS-mCD8:GFP/dpp-LacZ; tub-Gal80 <sup>ts</sup> /+
Figure 6	В	apGal4, UAS-mCD8:GFP/dpp-LacZ; tub-Gal80 <sup>ts</sup> / UAS-Brm <sup>RNAi(v33720)</sup>
i igure o	С	apGal4, UAS-GFP/ dpp-LacZ; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Brm <sup>RNAi(v33720)</sup>
	D	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /+
	Е	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> / UAS-Brm <sup>RNAi(v33720)</sup>
	F, H	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Brm <sup>RNAi(v33720)</sup>
	G	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /+
	Ι	apGal4, UAS-GFP/+;
		UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-dpp <sup>RNAi(BL25782, TRiPJF01371)</sup> , UAS-Brm <sup>RNAi(v33720)</sup>
	J	apGal4, UAS-GFP/UAS-Wg <sup>RNAi(v13351)</sup> ;
		UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Brm <sup>RNAi(v33720)</sup>
	К	apGal4, UAS-GFP/UAS-Wg <sup>RNAi(v13351)</sup> ; UAS-Yki, tub-Gal80 <sup>ts</sup> / UAS-
		dpp <sup>RNAi(BL25782, TRiP.JF01371)</sup> , UAS-Brm <sup>RNAi(v33720)</sup>
	L	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Wg.HA
	М	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Dpp
	A	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /+
Figuro	В	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Polybromo <sup>RNAi(BL32840)</sup>
c1	С	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> / UAS-Bap170 <sup>RNAi(v34582)</sup>
51	D	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> / SAYP <sup>RNAi(v38638)</sup>
	Е	Above genotypes
Figure S2	А	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> / UAS-Snr1 <sup>RNAi(v12645)</sup>
	В	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Bap111 <sup>RNAi(v37682)</sup>
	С	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-mor <sup>RNAi(v6969)</sup>
	D	apGal4. UAS-GFP/+: UAS-Yki. tub-Gal80 <sup>ts</sup> /IIAS-osa <sup>RNAi(v7810)</sup>
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	Е	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /UAS-Snr1 <sup>RNAi(v12645)</sup>
	F	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /UAS-Bap111 <sup>RNAi(v37682)</sup>
	G	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /UAS-mor <sup>RNAi(v6969)</sup>
	Н	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /UAS-osa <sup>RNAi(v7810)</sup>
Figure	A	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /+
S3	В	apGal4, UAS-mCD8:GFP/+; UAS-EGFR, tub-Gal80 <sup>ts</sup> /+
	С	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /+
	A	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /rpr-LacZ
Figure	В	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /rpr-LacZ, UAS-Snr1 <sup>RNAi(v12645)</sup>
SA.	С	apGal4, UAS-mCD8:GFP/+;
54		tub-Gal80 <sup>ts</sup> /rpr-LacZ, UAS-Bap111 <sup>RNAi(v37682)</sup>
	D	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /rpr-LacZ, UAS-mor <sup>RNAi(v6969)</sup>
	Е	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /rpr-LacZ, UAS-osa <sup>RNAi(v7810)</sup>
	F	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> / +
	J	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> / UAS-Snr1 <sup>RNAi(v12645)</sup>
	Н	apGal4, UAS-mCD8:GFP/+; tub-Gal80ts/ UAS-Bap111 RNAi(v37682)
	Ι	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> / UAS-mor <sup>RNAi(v6969)</sup>
	J	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> / UAS-osa <sup>RNAi(v7810)</sup>
	К	apGal4, UAS-mCD8:GFP/UAS-p35; tub-Gal80ts/ +
	L	apGal4, UAS-mCD8:GFP/UAS-p35; tub-Gal80ts/ UAS-Snr1 <sup>RNAi(v12645)</sup>
	М	apGal4, UAS-mCD8:GFP/UAS-p35; tub-Gal80ts/ UAS-Bap111 RNAi(v37682)
	N	apGal4, UAS-mCD8:GFP/UAS-p35; tub-Gal80 <sup>ts</sup> / UAS-mor <sup>RNAi(v6969)</sup>
	0	apGal4, UAS-mCD8:GFP/UAS-p35; tub-Gal80 <sup>ts</sup> / UAS-osa <sup>RNAi(v7810)</sup>
Figure	Α	apGal4, UAS-mCD8:GFP/ CyclinE-LacZ; tub-Gal80 <sup>ts</sup> /+
S5	В	apGal4, UAS-mCD8:GFP/ CyclinE-LacZ;
55		tub-Gal80 <sup>ts</sup> / UAS-Snr1 <sup>RNAi(v12645)</sup>
	С	apGal4, UAS-mCD8:GFP/ CyclinE-LacZ;
		tub-Gal80 <sup>ts</sup> / Bap111 <sup>RNAi(v37682)</sup>
	D	apGal4, UAS-mCD8:GFP/ CyclinE-LacZ;
		tub-Gal80 <sup>ts</sup> / UAS-mor <sup>RNAi(v6969)</sup>
	Е	apGal4, UAS-mCD8:GFP/ CyclinE-LacZ;
		tub-Gal80 <sup>ts</sup> / UAS-osa <sup>RNAi(v7810)</sup>
	F	apGal4, UAS-mCD8:GFP/+; tub-Gal80ts/ DIAP1-LacZ
	G	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> / UAS-Snr1 <sup>RNAi(v12645)</sup> , DIAP1-LacZ
	Н	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> / UAS-Bap111 <sup>RNAi(v37682)</sup> , DIAP1-LacZ
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	Ι	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> / UAS-mor <sup>RNAi(v6969)</sup> , DIAP1-LacZ
	J	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> / UAS-osa <sup>RNAi(v7810)</sup> , DIAP1-LacZ
	К	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /bantam-LacZ
	L	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> / UAS-Snr1 <sup>RNAi(v12645)</sup> , bantam-LacZ
	М	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> / UAS-Bap111 <sup>RNAi(v37682)</sup> , bantam-LacZ
	N	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> / UAS-mor <sup>RNAi(v6969)</sup> , bantam-LacZ
	0	apGal4, UAS-mCD8:GFP/+;
		tub-Gal80 <sup>ts</sup> / UAS-osa <sup>RNAi(v7810)</sup> , bantam-LacZ
Figure	A	apGal4, UAS-mCD8:GFP/dpp-LacZ; tub-Gal80 <sup>ts</sup> /+
S6	В	apGal4, UAS-mCD8:GFP/dpp-LacZ; tub-Gal80 <sup>ts</sup> / UAS-Snr1 <sup>RNAi(v12645)</sup>
55	С	apGal4, UAS-mCD8:GFP/dpp-LacZ;
		tub-Gal80 <sup>ts</sup> / UAS-Bap111 <sup>RNAi(v37682)</sup>
	D	apGal4, UAS-mCD8:GFP/dpp-LacZ; tub-Gal80 <sup>ts</sup> / UAS-mor <sup>RNAi(v6969)</sup>
	Е	apGal4, UAS-mCD8:GFP/dpp-LacZ; tub-Gal80 <sup>ts</sup> / UAS-osa <sup>RNAi(v7810)</sup>
	F	apGal4, UAS-GFP/ dpp-LacZ; UAS-Yki, tub-Gal80 <sup>ts</sup> /+
	G	apGal4, UAS-GFP/ dpp-LacZ; UAS-Yki, tub-Gal80 <sup>ts</sup> / UAS-Snr1 <sup>RNAi(v12645)</sup>
	Н	apGal4, UAS-GFP/ dpp-LacZ;
		UAS-Yki, tub-Gal80 <sup>ts</sup> / UAS-Bap111 <sup>RNAi(v37682)</sup>
	Ι	apGal4, UAS-GFP/ dpp-LacZ; UAS-Yki, tub-Gal80 <sup>ts</sup> / UAS-mor <sup>RNAi(v6969)</sup>
	J	apGal4, UAS-GFP/ dpp-LacZ; UAS-Yki, tub-Gal80 <sup>ts</sup> / UAS-osa <sup>RNAi(v7810)</sup>
Figure S7	A	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /+
	В	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /UAS-Snr1 <sup>RNAi(v12645)</sup>
	С	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /UAS-Bap111 <sup>RNAi(v37682)</sup>
	D	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /UAS-mor <sup>RNAi(v6969)</sup>
	Е	apGal4, UAS-mCD8:GFP/+; tub-Gal80 <sup>ts</sup> /UAS-osa <sup>RNAi(v7810)</sup>
	F	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /+
	G	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Snr1 <sup>RNAi(v12645)</sup>
	Н	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-Bap111 <sup>RNAi(v37682)</sup>
	Ι	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-mor <sup>RNAi(v6969)</sup>
	J	apGal4, UAS-GFP/+; UAS-Yki, tub-Gal80 <sup>ts</sup> /UAS-osa <sup>RNAi(v7810)</sup>
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