

Figure S1

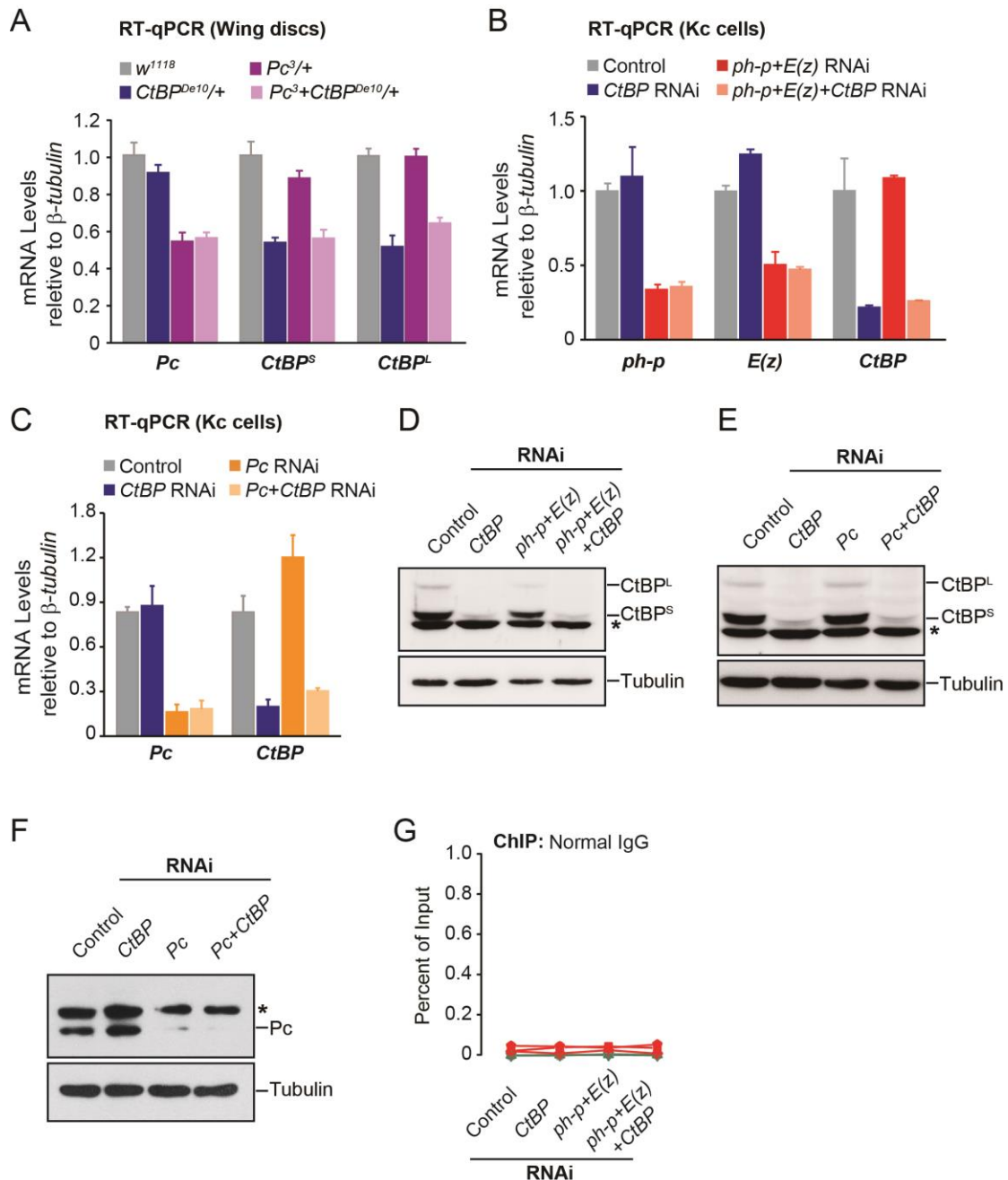


Fig. S1. IgG ChIP controls and the verification of RNAi efficiency in wing discs and Kc cells.

(A) RT-qPCR analysis of mRNA levels of *Pc* (A) and two *CtBP* transcripts [short (*CtBP^S*) and long (*CtBP^L*) forms] in the wing imaginal discs with genotypes indicated. (B-C) RT-qPCR analyses of mRNA levels (relative to β -*tubulin*) of genes in Kc cells with different combinations of RNAi treatments targeting *ph-p*, *E(z)*, *Pc* and *CtBP* and of control dsRNA, as indicated. (D-F) Verification of the protein levels of *Pc* and *CtBP* (*CtBP^S* and *CtBP^L*) in Kc cells subjected to different RNAi treatments as indicated. * indicated the nonspecific signals. Note that all genes were efficiently knocked down within comparable levels upon the different RNAi treatments. (G) ChIP-qPCR signals of normal IgG were measured and expressed as in Figure 5-6.

Figure S2

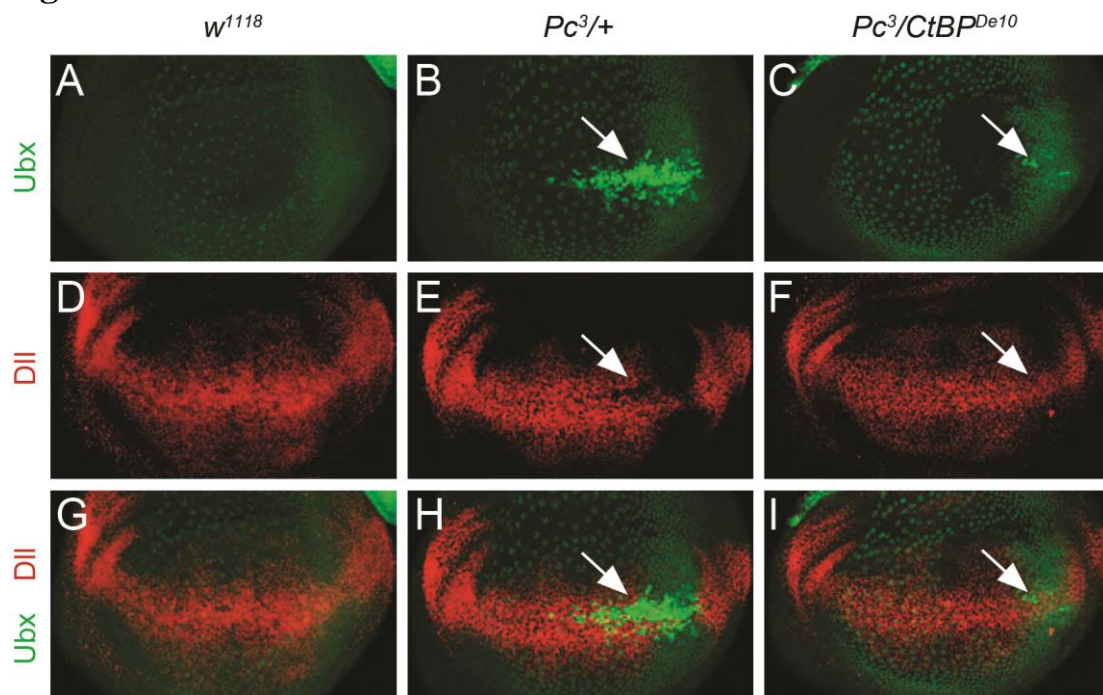


Fig. S2. CtBP is required for Ubx to repress Dll expression in wing imaginal disc.

(A-I) Representative confocal images of the late 3rd instar wing imaginal discs, with genotypes annotated above, stained for Ubx (A-C) and Distal-less (Dll, D-F). (G-I) are merged from (A-F). Note the complementation of ectopic Ubx and the reduced Dll signals (arrows).

Figure S3

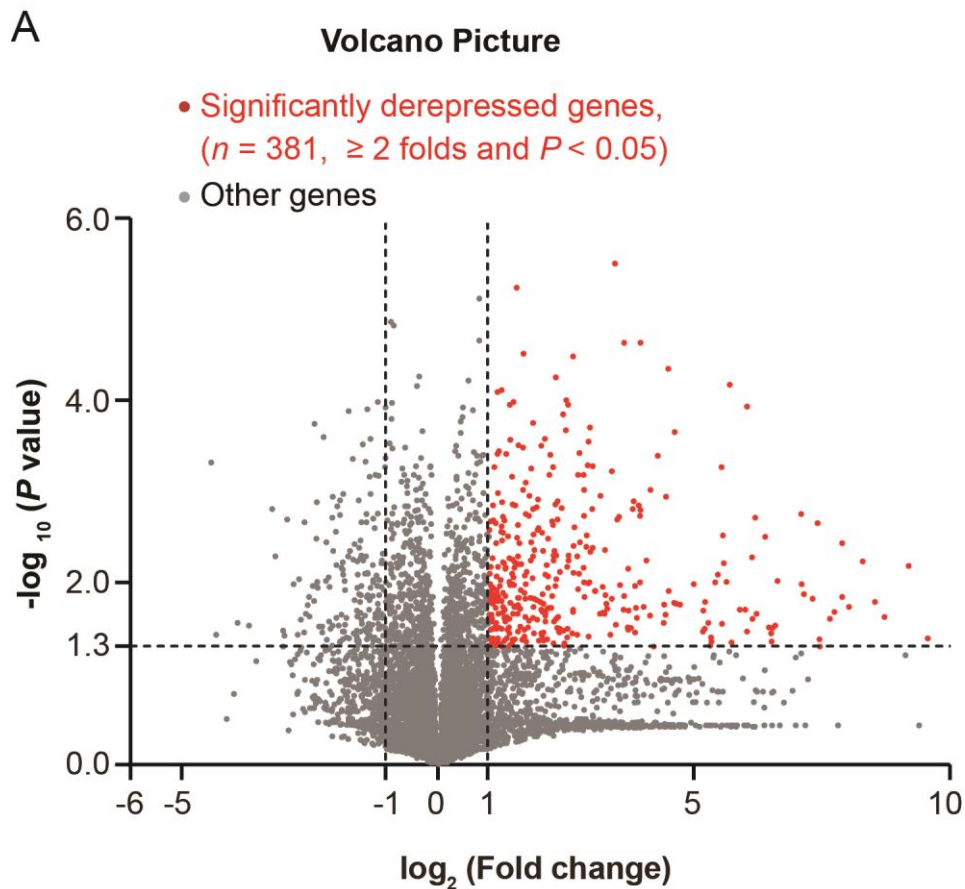


Fig. S3. The selection of PcG repressed genes in Kc cells.

(A) Volcano Plots of differentially expressed genes (DEG) between cells treated with control and *ph-p+E(z)* RNAi, as determined by the RNA-seq analysis pipeline (see Materials and Methods for detail). Of 11,282 genes with sound seq data, 381 were selected as PcG repressed genes (dots in red), based on the rule as indicated. The dashed lines indicate $P = 0.05$, $\log_2[\text{Fold change}] = -1$ and 1 , respectively.

Figure S4

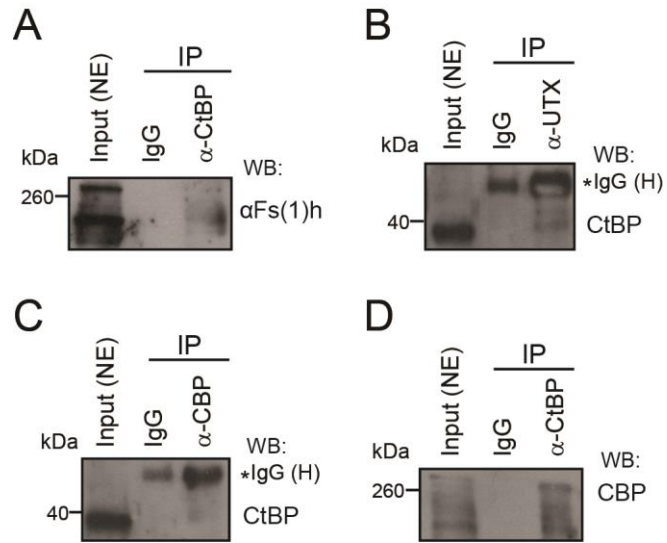


Fig. S4. CtBP interacts with UTX, CBP and Fs(1)h.

Western blots by antibodies indicated (to the right) of nuclear extracts (NE, 10% input), co-immunoprecipitates (IP) of normal IgG (IgG) and the indicated antibodies in Kc cells.

Table S1. List of primer sequences for dsRNA templates, RT-qPCR and ChIP analysis.

dsRNA	Control	GAATTAATACGACTCACTATAGGGAGAAT GATTGAACAAGATGGATTGCACGCA; GAATTAATACGACTCACTATAGGGAGAAAT ATCACGGGTAGCCAACGCTATGTCCT.
	<i>CtBP</i>	GAATTAATACGACTCACTATAGGGAGAAT GCACAAAGCACCTCCGAAATACACGA; GAATTAATACGACTCACTATAGGGAGAGC ACCAGGTGCGCATCTGTTTAATTGTGAAT.
	<i>Pc</i>	GAATTAATACGACTCACTATAGGGAGAGCG TTAAGAAGGGCGTCGTGGAGTACC; GAATTAATACGACTCACTATAGGGAGAGGA GTTACCTGCTGGGTCCGGCTGAGG.
	<i>ph-p</i>	GAATTAATACGACTCACTATAGGGAGAGGT CACAATTACCAACCAGAGCAGCACTCC; GAATTAATACGACTCACTATAGGGAGACGT GGTTGAAGTTGATGTTGCCGACG.
	<i>E(z)</i>	GAATTAATACGACTCACTATAGGGAGACGA GTCGAAGGTTTGGCAGGCTAAA; GAATTAATACGACTCACTATAGGGAGATTCT TCCACATCGGGCTTAACATCC.
	RT-qPCR	<i>β-tubulin56D</i>
	<i>CtBP</i>	ACCTTACAATGGCGCACTGAA; TGCGGTGTGCAAATCAGATT.
	<i>CtBP^S</i>	AACGAACCTTACAATGGCGC; GGTGTGCAAATCAGATTTGGG.
	<i>CtBP^L</i>	CGCTTGAATTGTGAGTAGCC; TCACCTCCGTTTTTATGCTCG.
	<i>Pc</i>	GTTCCAGCCCTTCCACTTGAC; ATCATCCAAAAGCGCGTTAAG.
	<i>ph-p</i>	AGCAACAGGCGACGAATCTC; TTCTGCAGGGTGATCGGAGT.
	<i>E(z)</i>	GCCATCAGCGCTAACTTTCC; TGGTGCTCCGTAAGCTCAATG.
	<i>Antp</i>	ATGGACCTCTGTCAGTCGG; CAGGCGCAGTTGGGCTATAC.
	<i>Ubx</i>	AGAATCTCTTGCGGGCTCAC; GCAGACCATTTGTACCTAGCCA.
	<i>abd-A</i>	GTCGTTTGTGGCGATTTCAAC; AAGCGAGTGTAGGTCTGGCG.
	<i>Abd-B</i>	CAGCGAGAACTACTCCAGCTCAG; CACTGCTCCCACGGATAATC.
ChIP	Antp P1	TGGCGCGCTTCGATATAAAC; CCAAACATCCACTTGCCGAC.
	Antp P2	GCAGTCGGATGATTAATGGCA; CATCCCATCTCCATTGCAG.
	bx _d PRE	TAGTCTTATCTGTATCTCGCTCTTA; CAGAACCAAAGTGCCGATAACTC.
	bx PRE	CCATAAGAAATGCCACTTTGC; CTCTCACTCTCTCACTGTGAT.
	Ubx Pro	TCCAATCCGTTGCCATCGAACGAA; TTAGGCCGAGTCGAGTGAGTTGAG.
	Ubx Int	CCGAACATGAGAGATGGAAAA; AAAGTGCCGACAATGCAGTTA.

Table S2. List of 381 PcG repressed genes as in Figure 3A.

CtBP co-activated genes		CtBP unaffected genes		CtBP co-repressed genes	
Flybase ID	Gene name (short)	Flybase ID	Gene name (short)	Flybase ID	Gene name (short)
FBgn0000014	<i>abd-A</i>	FBgn0000037	<i>mAcR-60C</i>	FBgn0000071	<i>Ama</i>
FBgn0000015	<i>Abd-B</i>	FBgn0000043	<i>Act42A</i>	FBgn0000099	<i>ap</i>
FBgn0000157	<i>Dll</i>	FBgn0000233	<i>btd</i>	FBgn0000439	<i>Dfd</i>
FBgn0000179	<i>bi</i>	FBgn0000250	<i>cact</i>	FBgn0000576	<i>ems</i>
FBgn0000251	<i>cad</i>	FBgn0000256	<i>capu</i>	FBgn0000636	<i>Fas3</i>
FBgn0000363	<i>cpo</i>	FBgn0000320	<i>eya</i>	FBgn0001235	<i>hth</i>
FBgn0000459	<i>disco</i>	FBgn0000337	<i>cn</i>	FBgn0003053	<i>peb</i>
FBgn0000490	<i>dpp</i>	FBgn0000411	<i>D</i>	FBgn0003159	<i>ptr</i>
FBgn0000659	<i>fkf</i>	FBgn0000448	<i>Hr46</i>	FBgn0003997	<i>W</i>
FBgn0001114	<i>Glt</i>	FBgn0000489	<i>Pka-C3</i>	FBgn0004858	<i>eIB</i>
FBgn0001138	<i>grn</i>	FBgn0001319	<i>kn</i>	FBgn0011706	<i>rpr</i>
FBgn0001147	<i>gsb-n</i>	FBgn0001325	<i>Kr</i>	FBgn0013771	<i>Cyp6a9</i>
FBgn0002522	<i>lab</i>	FBgn0001967	<i>nimC3</i>	FBgn0013995	<i>Caix</i>
FBgn0003067	<i>Pepck</i>	FBgn0002576	<i>lz</i>	FBgn0014019	<i>Rh5</i>
FBgn0003423	<i>slgA</i>	FBgn0002917	<i>na</i>	FBgn0015575	<i>alpha-Est7</i>
FBgn0003460	<i>so</i>	FBgn0002931	<i>net</i>	FBgn0015766	<i>Msr-110</i>
FBgn0003495	<i>spz</i>	FBgn0002945	<i>nkd</i>	FBgn0016675	<i>Lectin-galC1</i>
FBgn0003513	<i>ss</i>	FBgn0002973	<i>numb</i>	FBgn0019643	<i>Dat</i>
FBgn0003651	<i>svp</i>	FBgn0003002	<i>opa</i>	FBgn0020415	<i>ldgf2</i>
FBgn0003717	<i>Tl</i>	FBgn0003117	<i>pnr</i>	FBgn0020762	<i>Atet</i>
FBgn0003866	<i>tsh</i>	FBgn0003254	<i>rib</i>	FBgn0024290	<i>Slob</i>
FBgn0003944	<i>Ubx</i>	FBgn0003435	<i>sm</i>	FBgn0026315	<i>Ugt35a</i>
FBgn0003975	<i>vg</i>	FBgn0003463	<i>sog</i>	FBgn0026415	<i>ldgf4</i>
FBgn0004102	<i>oc</i>	FBgn0003749	<i>trh</i>	FBgn0027070	<i>CG17322</i>
FBgn0004360	<i>Wnt2</i>	FBgn0003969	<i>vap</i>	FBgn0027356	<i>Amph</i>
FBgn0004394	<i>pdm2</i>	FBgn0004009	<i>wg</i>	FBgn0027556	<i>CG4928</i>
FBgn0004435	<i>Galpha49B</i>	FBgn0004575	<i>Syn</i>	FBgn0030156	<i>CG15247</i>
FBgn0004567	<i>slp2</i>	FBgn0005624	<i>Psc</i>	FBgn0030160	<i>CG9691</i>
FBgn0004579	<i>salm</i>	FBgn0008646	<i>E5</i>	FBgn0031362	<i>CG17646</i>
FBgn0004595	<i>pros</i>	FBgn0008654	<i>Su(z)2</i>	FBgn0031791	<i>CG9486</i>
FBgn0004607	<i>zfh2</i>	FBgn0010225	<i>Gel</i>	FBgn0032318	<i>CG14072</i>
FBgn0004629	<i>Cys</i>	FBgn0010313	<i>corto</i>	FBgn0032422	<i>CG6579</i>
FBgn0004795	<i>retn</i>	FBgn0010381	<i>Drs</i>	FBgn0032843	<i>CG10730</i>
FBgn0005677	<i>dac</i>	FBgn0010453	<i>Wnt4</i>	FBgn0032886	<i>CG9328</i>
FBgn0011722	<i>Tig</i>	FBgn0010768	<i>sqz</i>	FBgn0032897	<i>CG9336</i>
FBgn0013763	<i>Chit</i>	FBgn0013469	<i>klu</i>	FBgn0032899	<i>CG9338</i>
FBgn0013772	<i>Cyp6a8</i>	FBgn0015872	<i>Drip</i>	FBgn0033408	<i>CG8800</i>
FBgn0013953	<i>Esp</i>	FBgn0016059	<i>Sema-1b</i>	FBgn0033504	<i>CAP</i>
FBgn0014343	<i>mirr</i>	FBgn0016660	<i>H15</i>	FBgn0033981	<i>Cyp6a21</i>
FBgn0015561	<i>unpg</i>	FBgn0016930	<i>smi35A</i>	FBgn0034198	<i>CG11400</i>
FBgn0015576	<i>alpha-Est8</i>	FBgn0020307	<i>dve</i>	FBgn0034199	<i>CG15917</i>
FBgn0015903	<i>apt</i>	FBgn0020416	<i>ldgf1</i>	FBgn0034200	<i>CG11395</i>
FBgn0020445	<i>E23</i>	FBgn0024150	<i>Ac78C</i>	FBgn0034429	<i>CG18607</i>
FBgn0020546	<i>iab-4</i>	FBgn0024288	<i>Sox100B</i>	FBgn0034733	<i>CG4752</i>
FBgn0020912	<i>Ptx1</i>	FBgn0024980	<i>Syx4</i>	FBgn0035508	<i>CG15005</i>
FBgn0023441	<i>fus</i>	FBgn0025525	<i>bab2</i>	FBgn0035975	<i>PGRP-LA</i>
FBgn0024184	<i>unc-4</i>	FBgn0025680	<i>cry</i>	FBgn0036419	<i>CG13482</i>
FBgn0024244	<i>drm</i>	FBgn0026063	<i>KP78b</i>	FBgn0036493	<i>CG7255</i>
FBgn0025578	<i>Lcp9</i>	FBgn0026189	<i>prominin-like</i>	FBgn0036782	<i>CG7320</i>

Table S2. Continued.

CtBP co-activated genes		CtBP unaffected genes		CtBP co-repressed genes	
Flybase ID	Gene name (short)	Flybase ID	Gene name (short)	Flybase ID	Gene name (short)
FBgn0025693	CG11163	FBgn0027348	<i>bgm</i>	FBgn0037163	<i>laza</i>
FBgn0026064	<i>KP78a</i>	FBgn0027600	<i>obst-B</i>	FBgn0037166	CG11426
FBgn0026411	<i>Lim1</i>	FBgn0028550	<i>A3-3</i>	FBgn0037515	<i>Sp7</i>
FBgn0027578	CG14526	FBgn0028979	<i>tio</i>	FBgn0038088	CG10126
FBgn0027929	<i>nimB1</i>	FBgn0029123	<i>SoxN</i>	FBgn0038150	<i>yellow-e3</i>
FBgn0028519	CG4500	FBgn0029895	CG14441	FBgn0038151	<i>yellow-e2</i>
FBgn0028542	<i>nimB4</i>	FBgn0030090	<i>fend</i>	FBgn0038179	CG9312
FBgn0028543	<i>nimB2</i>	FBgn0030296	CG15196	FBgn0038198	<i>Npc2b</i>
FBgn0028936	<i>nimB5</i>	FBgn0030340	CG15740	FBgn0038261	CG14856
FBgn0028940	<i>Cyp28a5</i>	FBgn0030722	CG12395	FBgn0038262	CG14857
FBgn0029003	<i>mab-21</i>	FBgn0030839	CG5613	FBgn0038353	CG5399
FBgn0029703	CG12692	FBgn0031080	CG12655	FBgn0038391	GATAe
FBgn0029775	<i>Vsx1</i>	FBgn0031081	<i>Nep3</i>	FBgn0038720	CG6231
FBgn0030452	CG4330	FBgn0031170	CG1718	FBgn0039075	CG4393
FBgn0030723	<i>dpr18</i>	FBgn0031397	CG15385	FBgn0039905	CG2052
FBgn0030796	CG4829	FBgn0031910	CG15818	FBgn0040730	CG15127
FBgn0030816	CG16700	FBgn0031920	CG6441	FBgn0040732	CG16926
FBgn0031327	CG5397	FBgn0031927	CG13792	FBgn0040827	CG13315
FBgn0031389	CG4259	FBgn0031970	CG7227	FBgn0041711	<i>yellow-e</i>
FBgn0031547	<i>Sr-CIV</i>	FBgn0031993	CG8486	FBgn0042696	<i>Nfi</i>
FBgn0031646	CG2837	FBgn0032120	CG33298	FBgn0045064	<i>bwa</i>
FBgn0031695	<i>Cyp4ac3</i>	FBgn0032265	CG18301	FBgn0050438	CG30438
FBgn0031914	CG5973	FBgn0032935	CG8678	FBgn0050456	CG30456
FBgn0031923	CG13791	FBgn0033649	<i>pyr</i>	FBgn0051116	CG31116
FBgn0032086	CG17906	FBgn0033756	CG17760	FBgn0051287	CG31287
FBgn0032124	CG17855	FBgn0033787	CG13321	FBgn0051313	CG31313
FBgn0032493	CG15479	FBgn0033791	<i>Drl-2</i>	FBgn0051436	CG31436
FBgn0032946	<i>nrv3</i>	FBgn0034194	CG15611	FBgn0051454	CG31454
FBgn0032955	CG2201	FBgn0034195	CG10956	FBgn0053555	<i>btsz</i>
FBgn0032978	CG15216	FBgn0034196	CG15605	FBgn0083919	<i>Zasp52</i>
FBgn0033042	<i>Tsp42A</i>	FBgn0034219	<i>mthl4</i>	FBgn0085227	CG34198
FBgn0033065	<i>Cyp6w1</i>	FBgn0034389	<i>Mctp</i>	FBgn0259175	<i>ome</i>
FBgn0033250	CG14762	FBgn0034417	CG15117	FBgn0259244	CG42342
FBgn0033387	CG8008	FBgn0034428	CG18606	FBgn0259736	CG42390
FBgn0033483	<i>egr</i>	FBgn0034476	<i>Toll-7</i>	FBgn0260000	CG17570
FBgn0033635	CG7777	FBgn0034883	CG17664	FBgn0260005	<i>wtrw</i>
FBgn0033857	CG13335	FBgn0035146	CG13893		
FBgn0033939	<i>Oaz</i>	FBgn0035262	CG18171		
FBgn0034010	CG8157	FBgn0035412	CG14957		
FBgn0034085	<i>Ptp52F</i>	FBgn0035454	CG12029		
FBgn0034126	CG4398	FBgn0035976	<i>PGRP-LC</i>		
FBgn0034140	CG8317	FBgn0035977	<i>PGRP-LF</i>		
FBgn0034221	CG10764	FBgn0036359	CG14105		
FBgn0034810	CG9895	FBgn0036377	CG10710		
FBgn0034834	CG3162	FBgn0036381	CG8745		
FBgn0034957	CG3121	FBgn0036494	<i>Toll-6</i>		
FBgn0034985	CG3328	FBgn0037005	CG5078		
FBgn0035282	CG13936	FBgn0037060	CG10508		
FBgn0035453	CG10357	FBgn0037698	CG16779		
FBgn0035583	CG13704	FBgn0037989	CG14741		
FBgn0035623	<i>mthl2</i>	FBgn0038243	CG8066		

Table S2. Continued.

CtBP co-activated genes		CtBP unaffected genes		CtBP co-repressed genes	
Flybase ID	Gene name (short)	Flybase ID	Gene name (short)	Flybase ID	Gene name (short)
FBgn0036620	CG4842	FBgn0038416	CG17930		
FBgn0036904	<i>trpm1</i>	FBgn0039060	CG13836		
FBgn0036956	CG13813	FBgn0039067	<i>wda</i>		
FBgn0037222	CG14642	FBgn0039068	CG13827		
FBgn0037223	<i>TwdIU</i>	FBgn0039648	CG14515		
FBgn0037228	CG1092	FBgn0039818	CG11318		
FBgn0037487	CG14608	FBgn0039927	CG11155		
FBgn0037937	<i>Fer3</i>	FBgn0039938	<i>Sox102F</i>		
FBgn0037941	CG12594	FBgn0040503	CG7763		
FBgn0038237	<i>Pde6</i>	FBgn0041087	<i>wun2</i>		
FBgn0038832	CG15695	FBgn0041229	<i>Gr93a</i>		
FBgn0039000	CG6954	FBgn0043806	CG32032		
FBgn0039226	CG18410	FBgn0046776	CG14033		
FBgn0039611	CG14528	FBgn0050151	CG30151		
FBgn0039756	CG9743	FBgn0051053	CG31053		
FBgn0040384	CG32795	FBgn0051217	<i>modSP</i>		
FBgn0040502	CG8343	FBgn0051778	CG31778		
FBgn0040813	<i>Nplp2</i>	FBgn0051999	CG31999		
FBgn0041233	<i>Gr59e</i>	FBgn0052121	CG32121		
FBgn0041234	<i>Gr59f</i>	FBgn0052407	CG32407		
FBgn0041629	<i>Hexo2</i>	FBgn0052712	CG32712		
FBgn0042105	CG18748	FBgn0052987	CG32987		
FBgn0042650	<i>disco-r</i>	FBgn0052988	CG32988		
FBgn0050043	CG30043	FBgn0053173	CG33173		
FBgn0050054	CG30054	FBgn0053533	<i>lectin-37Db</i>		
FBgn0050089	CG30089	FBgn0053758	CG33758		
FBgn0050090	CG30090	FBgn0053980	<i>Vsx2</i>		
FBgn0050461	CG30461	FBgn0054003	<i>nimB3</i>		
FBgn0050463	CG30463	FBgn0060296	<i>pain</i>		
FBgn0051038	CG31038	FBgn0083973	CG34137		
FBgn0051051	CG31051	FBgn0085218	CG34189		
FBgn0052843	<i>Dh31-R1</i>	FBgn0085403	<i>Rapgap1</i>		
FBgn0053460	CG33460	FBgn0085409	CG34380		
FBgn0053465	CG33465	FBgn0086677	<i>jeb</i>		
FBgn0053532	<i>lectin-37Da</i>	FBgn0250907	<i>Cht3</i>		
FBgn0053960	CG33960	FBgn0259211	<i>grh</i>		
FBgn0053993	CG33993	FBgn0259699	CG42353		
FBgn0054054	CG34054	FBgn0260011	<i>nimC4</i>		
FBgn0065110	<i>ppk10</i>	FBgn0260429	CG42524		
FBgn0085419	<i>Rgk2</i>	FBgn0261059	<i>Sfp78E</i>		
FBgn0085424	<i>nub</i>	FBgn0261260	CG42611		
FBgn0086680	<i>vvl</i>	FBgn0261287	<i>ymp</i>		
FBgn0243514	<i>eater</i>	FBgn0261545	CG42663		
FBgn0250821	CG14644				
FBgn0259192	CG42296				
FBgn0259240	<i>Ten-a</i>				
FBgn0259241	CG42339				
FBgn0259715	CG42369				
FBgn0259739	CG42393				
FBgn0259794	<i>sinah</i>				
FBgn0259896	<i>nimC1</i>				
FBgn0260642	<i>Antp</i>				
FBgn0261451	<i>trol</i>				

Table S3. List of 73 PcG targets.

CtBP-associated PcG targets		CtBP-unassociated PcG targets	
Flybase ID	Gene name (short)	Flybase ID	Gene name (short)
FBgn0001147	<i>gsb-n</i>	FBgn0000071	<i>Ama</i>
FBgn0052988	CG32988	FBgn0038391	<i>GATAe</i>
FBgn0000490	<i>dpp</i>	FBgn0000099	<i>ap</i>
FBgn0003975	<i>vg</i>	FBgn0000411	<i>D</i>
FBgn0034810	CG9895	FBgn0000576	<i>ems</i>
FBgn0020912	<i>Ptx1</i>	FBgn0003053	<i>peb</i>
FBgn0004795	<i>retn</i>	FBgn0000439	<i>Dfd</i>
FBgn0001138	<i>grn</i>	FBgn0001235	<i>hth</i>
FBgn0003651	<i>svp</i>		
FBgn0029003	<i>mab-21</i>		
FBgn0004394	<i>pdm2</i>		
FBgn0000037	<i>mAcR-60C</i>		
FBgn0014343	<i>mirr</i>		
FBgn0023441	<i>fus</i>		
FBgn0003460	<i>so</i>		
FBgn0024184	<i>unc-4</i>		
FBgn0002522	<i>lab</i>		
FBgn0000014	<i>abd-A</i>		
FBgn0003513	<i>ss</i>		
FBgn0000015	<i>Abd-B</i>		
FBgn0029775	<i>Vsx1</i>		
FBgn0260642	<i>Antp</i>		
FBgn0015561	<i>unpg</i>		
FBgn0000179	<i>bi</i>		
FBgn0026411	<i>Lim1</i>		
FBgn0003944	<i>Ubx</i>		
FBgn0034883	CG17664		
FBgn0042650	<i>disco-r</i>		
FBgn0003254	<i>rib</i>		
FBgn0029123	<i>SoxN</i>		
FBgn0025525	<i>bab2</i>		
FBgn0033787	CG13321		
FBgn0008654	<i>Su(z)2</i>		
FBgn0002576	<i>lz</i>		
FBgn0016660	<i>H15</i>		
FBgn0001325	<i>Kr</i>		
FBgn0053980	<i>Vsx2</i>		
FBgn0005677	<i>dac</i>		
FBgn0004579	<i>salm</i>		
FBgn0004567	<i>slp2</i>		
FBgn0000157	<i>Dll</i>		
FBgn0004607	<i>zfh2</i>		
FBgn0000459	<i>disco</i>		
FBgn0004595	<i>pros</i>		
FBgn0033250	CG14762		
FBgn0001319	<i>kn</i>		
FBgn0003423	<i>slgA</i>		
FBgn0015903	<i>apt</i>		
FBgn0000659	<i>fkf</i>		
FBgn0003002	<i>opa</i>		
FBgn0000251	<i>cad</i>		
FBgn0003749	<i>trh</i>		
FBgn0013469	<i>klu</i>		
FBgn0026063	<i>KP78b</i>		
FBgn0026064	<i>KP78a</i>		
FBgn0004102	<i>oc</i>		
FBgn0052987	CG32987		
FBgn0086680	<i>vvl</i>		
FBgn0008646	<i>E5</i>		
FBgn0003117	<i>pnr</i>		
FBgn0004009	<i>wg</i>		
FBgn0024244	<i>drm</i>		
FBgn0259211	<i>grh</i>		
FBgn0005624	<i>Psc</i>		
FBgn0024288	<i>Sox100B</i>		

Note: The genes are listed in the order of heatmaps in Figure 4B.

Table S4. List of *P* value as in Figure 5 B-G and Figure 6 A-B.**Supplemental Table 4-1.** List of *P* value for data in Figure 5B

	<i>P</i> value of ANOVA	Adjusted <i>P</i> value (post-hoc)					
		<i>CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. Control RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>Ph+E(z)</i> RNAi
PRE (<i>Antp</i>)	0.0027	0.0136	0.9199	0.0336	0.0061	0.9076	0.0143
Promoter/ PRE (<i>Antp</i>)	0.0007	0.0011	0.0251	0.0011	0.1161	> 0.9999	0.1258
PRE (<i>bx</i>)	0.0404	0.0649	0.9528	0.1198	0.1342	0.9707	0.2423
Promoter (<i>Ubx</i>)	0.0034	0.0068	0.0131	0.0047	0.9542	0.9908	0.8522
PRE (<i>bx_d</i>)	0.0793						

Supplemental Table 4-2. List of *P* value for data in Figure 5C

	<i>P</i> value of ANOVA	Adjusted <i>P</i> value (post-hoc)					
		<i>CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. Control RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>Ph+E(z)</i> RNAi
PRE (<i>Antp</i>)	0.0002	0.0041	0.0001	0.0014	0.0433	0.7985	0.1565
Promoter/ PRE (<i>Antp</i>)	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0048	0.4000	0.0430
PRE (<i>bx</i>)	< 0.0001	0.0045	< 0.0001	0.0009	0.0009	0.5263	0.0044
Promoter (<i>Ubx</i>)	0.0628						
PRE (<i>bx_d</i>)	0.0034	0.7009	0.0029	0.2774	0.0112	0.8227	0.0362

Supplemental Table 4-3. List of *P* value for data in Figure 5D

	<i>P</i> value of ANOVA	Adjusted <i>P</i> value (post-hoc)					
		<i>CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. Control RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>Ph+E(z)</i> RNAi
PRE (<i>Antp</i>)	0.0102	0.2414	0.0078	0.6453	0.1321	0.8192	0.0387
Promoter/ PRE (<i>Antp</i>)	0.0030	0.0809	0.0018	0.0547	0.0708	0.9919	0.1048
PRE (<i>bx</i>)	0.0201	0.2470	0.0127	0.2182	0.2163	0.9997	0.2448
Promoter (<i>Ubx</i>)	0.0039	0.0793	0.0026	0.2661	0.1142	0.8143	0.0330
PRE (<i>bx_d</i>)	0.0128	0.7267	0.0350	0.8312	0.1530	0.3011	0.0111

Supplemental Table 4-4. List of *P* value for data in Figure 5E

	<i>P</i> value of ANOVA	Adjusted <i>P</i> value (post-hoc)					
		<i>CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. Control RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>Ph+E(z)</i> RNAi
PRE (<i>Antp</i>)	0.0004	0.5788	0.0019	> 0.9999	0.0005	0.5811	0.0019
Promoter/ PRE (<i>Antp</i>)	0.0008	0.9969	0.002	0.9943	0.0016	> 0.9999	0.0015
PRE (<i>bx</i>)	< 0.0001	0.1209	< 0.0001	0.0448	< 0.0001	0.8923	< 0.0001
Promoter (<i>Ubx</i>)	0.0493	0.997	0.075	> 0.9999	0.0991	0.9964	0.0736
PRE (<i>bx_d</i>)	0.0017	> 0.9999	0.0035	0.9998	0.0037	> 0.9999	0.0039

Table S4. Continued.**Supplemental Table 4-5.** List of *P* value for data in Figure 5F

	<i>P</i> value of ANOVA	Adjusted <i>P</i> value (post-hoc)					
		<i>CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. Control RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>Ph+E(z)</i> RNAi
PRE (<i>Antp</i>)	< 0.0001	0.0593	0.0008	0.0949	< 0.0001	0.9864	< 0.0001
Promoter/ PRE (<i>Antp</i>)	0.0015	0.8101	0.0072	0.8124	0.0025	> 0.9999	0.0025
PRE (<i>bx</i>)	0.0598						
Promoter (<i>Ubx</i>)	0.0335	0.9877	0.0746	0.9970	0.0474	0.9993	0.0563
PRE (<i>bx_d</i>)	0.0051	0.9071	0.0419	0.3714	0.0168	0.7212	0.0043

Supplemental Table 4-6. List of *P* value for data in Figure 5G

	<i>P</i> value of ANOVA	Adjusted <i>P</i> value (post-hoc)					
		<i>CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. Control RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>Ph+E(z)</i> RNAi
PRE (<i>Antp</i>)	0.0008	0.8396	0.0032	0.9403	0.0013	0.9929	0.0017
Promoter/ PRE (<i>Antp</i>)	< 0.0001	0.2868	0.0005	0.7097	< 0.0001	0.8277	0.0002
PRE (<i>bx</i>)	0.0082	0.9995	0.0143	0.1989	0.0123	0.1713	0.2996
Promoter (<i>Ubx</i>)	0.0177	0.9553	0.0875	0.6447	0.0428	0.8974	0.0166
PRE (<i>bx_d</i>)	< 0.0001	> 0.9999	< 0.0001	0.5810	< 0.0001	0.5884	< 0.0001

Supplemental Table 4-7. List of *P* value for data in Figure 6A

	<i>P</i> value of ANOVA	Adjusted <i>P</i> value (post-hoc)					
		<i>CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. Control RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>Ph+E(z)</i> RNAi
PRE (<i>Antp</i>)	0.0026	0.3579	0.4256	0.0201	0.9993	0.0038	0.0046
Promoter/ PRE (<i>Antp</i>)	0.1409						
PRE (<i>bx</i>)	0.2257						
Promoter (<i>Ubx</i>)	0.0200	0.9996	0.0175	0.9807	0.0458	0.9948	0.0681
PRE (<i>bx_d</i>)	0.0502						

Supplemental Table 4-8. List of *P* value for data in Figure 6B

	<i>P</i> value of ANOVA	Adjusted <i>P</i> value (post-hoc)					
		<i>CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. Control RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. Control RNAi	<i>Ph+E(z)</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>CtBP</i> RNAi	<i>Ph+E(z)+CtBP</i> RNAi VS. <i>Ph+E(z)</i> RNAi
PRE (<i>Antp</i>)	0.0063	0.7589	0.0110	0.7066	0.0064	0.3263	0.1239
Promoter/ PRE (<i>Antp</i>)	0.0012	0.7908	0.0022	0.2196	0.0017	0.0975	0.1203
PRE (<i>bx</i>)	0.7469						
Promoter (<i>Ubx</i>)	0.7708						
PRE (<i>bx_d</i>)	< 0.0001	0.9765	< 0.0001	0.1845	< 0.0001	0.4430	< 0.0001

For each loci, data were analyzed by one-way ANOVA, followed by Tukey's multiple comparison tests.