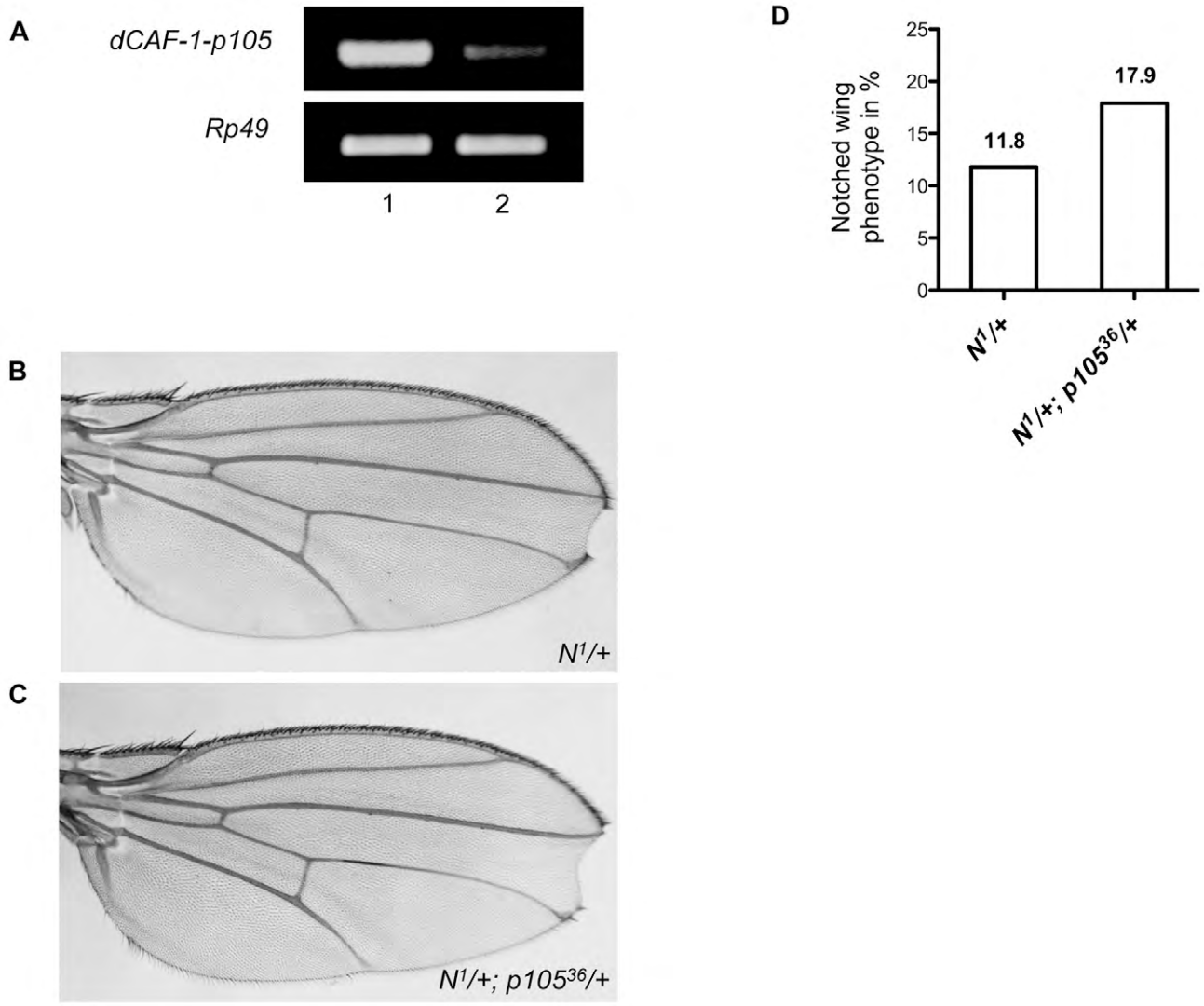

Fig. S1. Knockdown efficiency of *dCAF-1-p105^{IR}* and the genetic interaction between *N^{1}* and *p105^{36}*. (**A**) RT-PCR shows that the *dCAF-1-p105* mRNA level is significantly reduced in *ey>dCAF-1-p105^{IR}* animals. Lane 1, wild type; lane 2, *p105^{36}* mutant. *Rp49* was used as the internal loading control. (**B-D**) The *p105^{36}* mutation enhances the notched wing phenotype of *N^{1}*. (D) Statistics of B and C. Total wings scored: (B) *n*=110; (C) *n*=134.

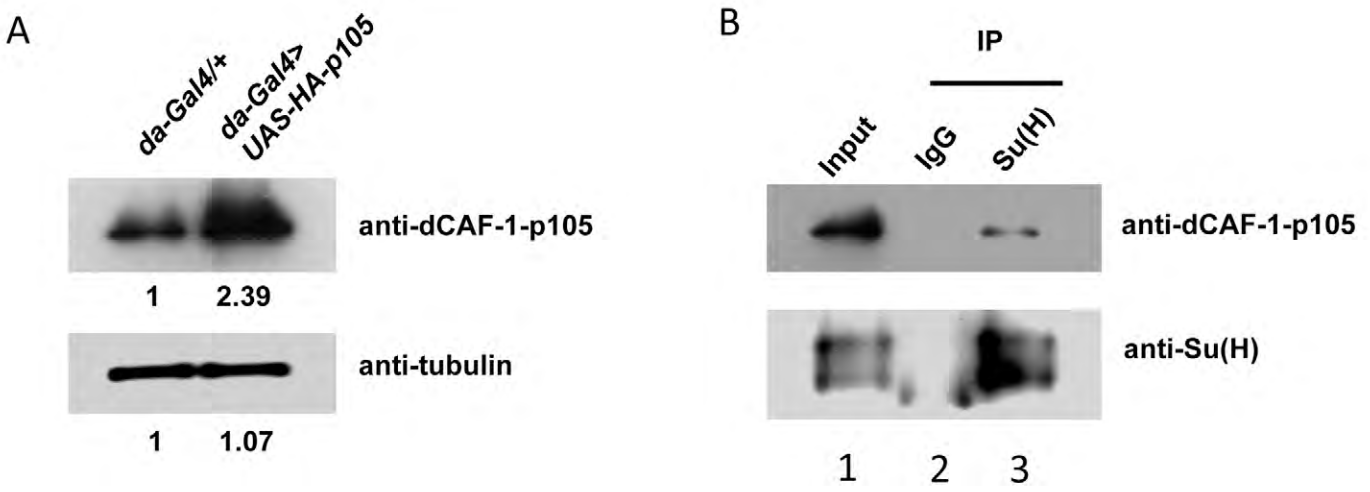

Fig. S2. Expression of the transgene *UAS-HA-p105* and the physical interaction of dCAF-1-p105 and Su(H). (**A**) Quantification of the dCAF-1-p105 protein level in *da-Gal4/+* and *da-Gal4/UAS-HA-dCAF-1-p105* embryos. Quantifications were performed using ImageJ software. (**B**) Physical interaction between Su(H) and endogenous dCAF-1-p105 (non-tagged).

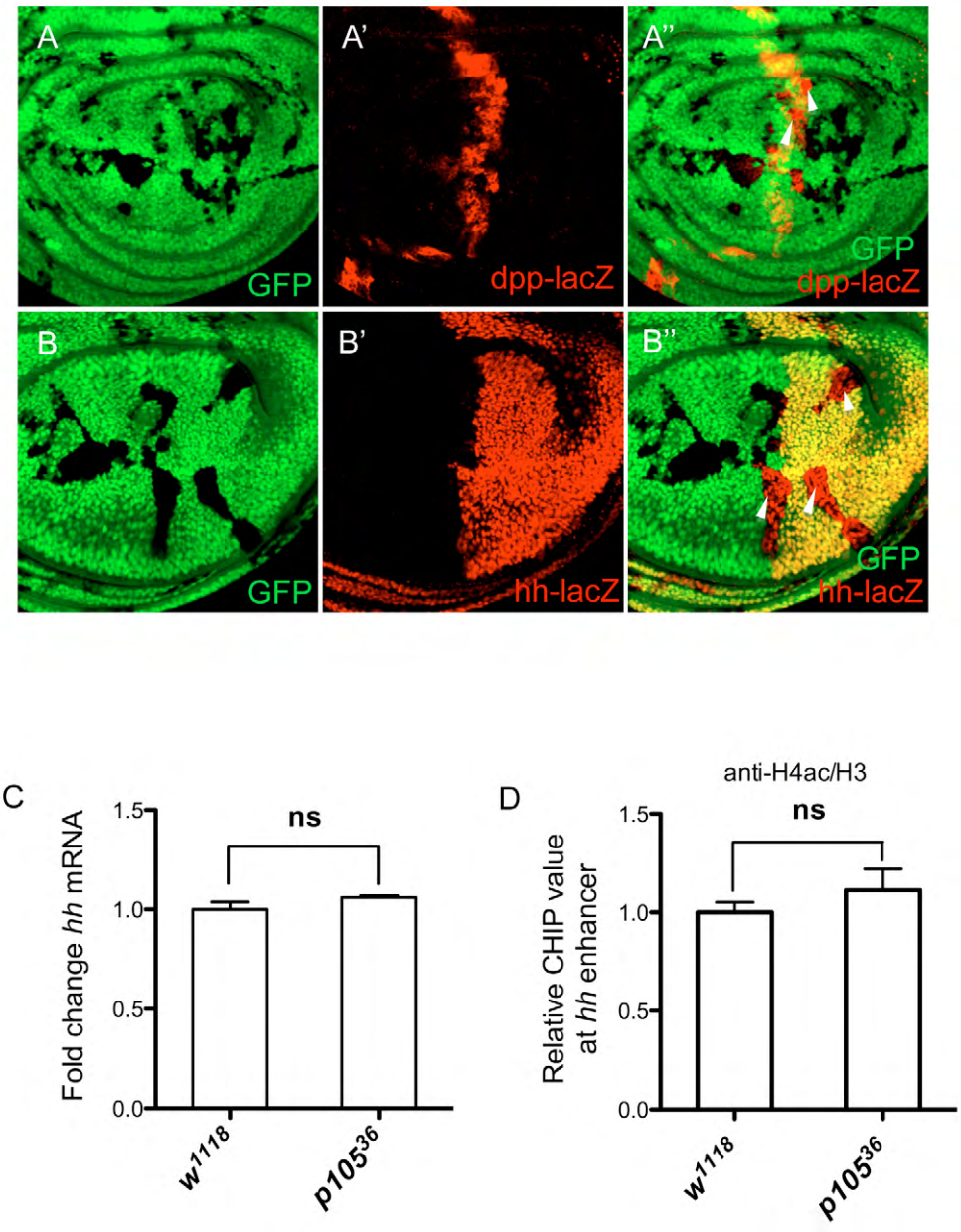

Fig. S3. Mutation of *dCAF-1-p105* does not affect Hh signaling. (**A-B″**) Expression of *dpp-lacZ* and *hh-lacZ* is unaffected in $p105^{36}$ mutant clones. $p105^{36}$ mutant clones are indicated at GFP-negative regions. *lacZ* expression is red, GFP is green. (**C**) $p105^{36}$ mutation did not affect *hh* transcription. (**D**) The H4ac level (normalized) was unchanged in the *hh* enhancer region in $p105^{36}$ mutant larvae as compared with that of the wild-type control.

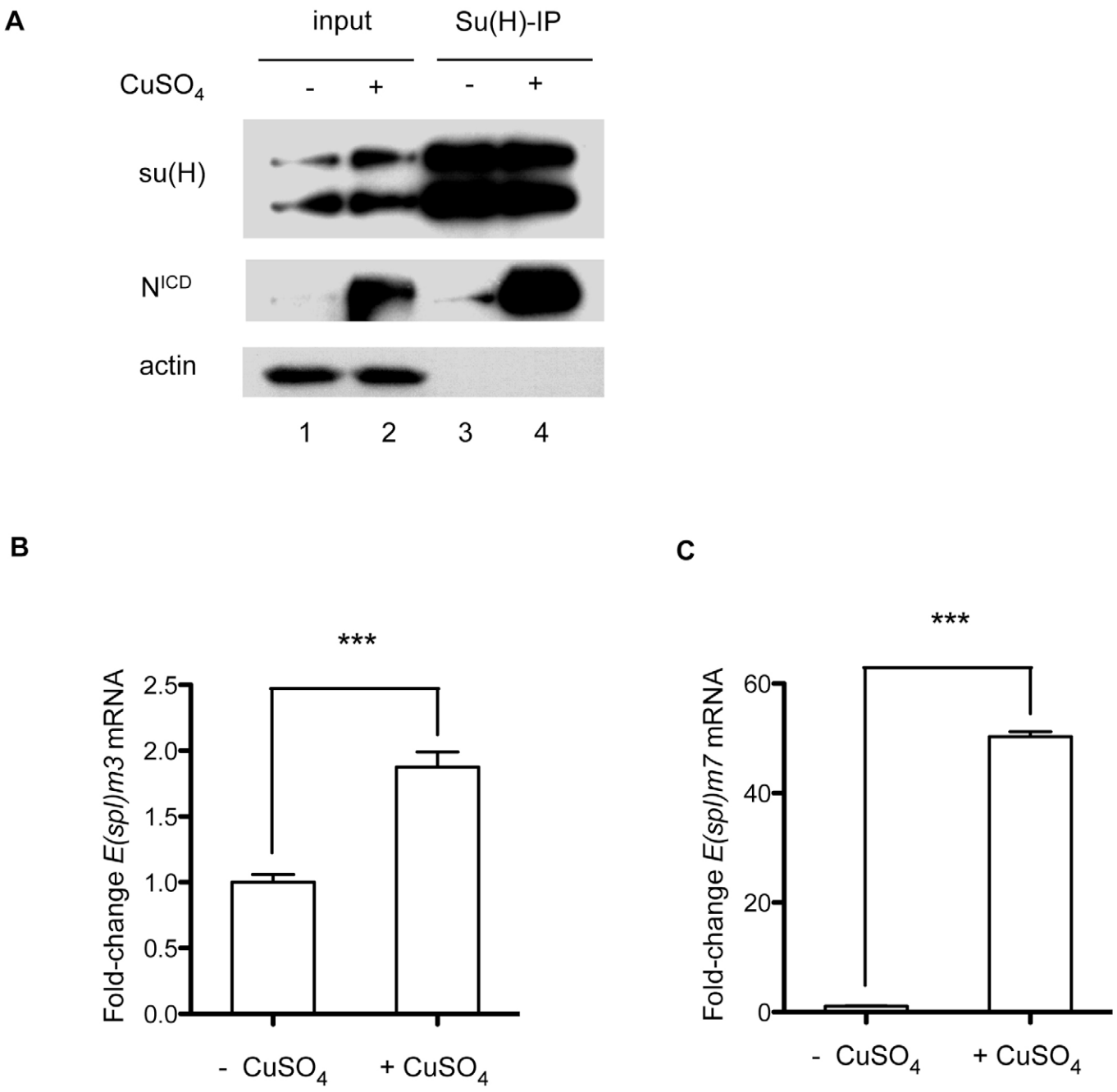

Fig. S4. N^{ICD} associates with Su(H) upon Notch induction in cultured S2 cells, activating the expression of Notch target genes *E(spl)m3* and *E(spl)m7*. (**A**) Physical interaction between N^{ICD} and Su(H). The $CuSO_4$ induction of full-length Notch is indicated by (+), as opposed to no induction indicated by (–). Actin was used as the loading control. (**B**,**C**) Induced expression of the Notch target genes *E(spl)m3* and *E(spl)m7*. ***$P<0.0001$, Student's *t*-test.

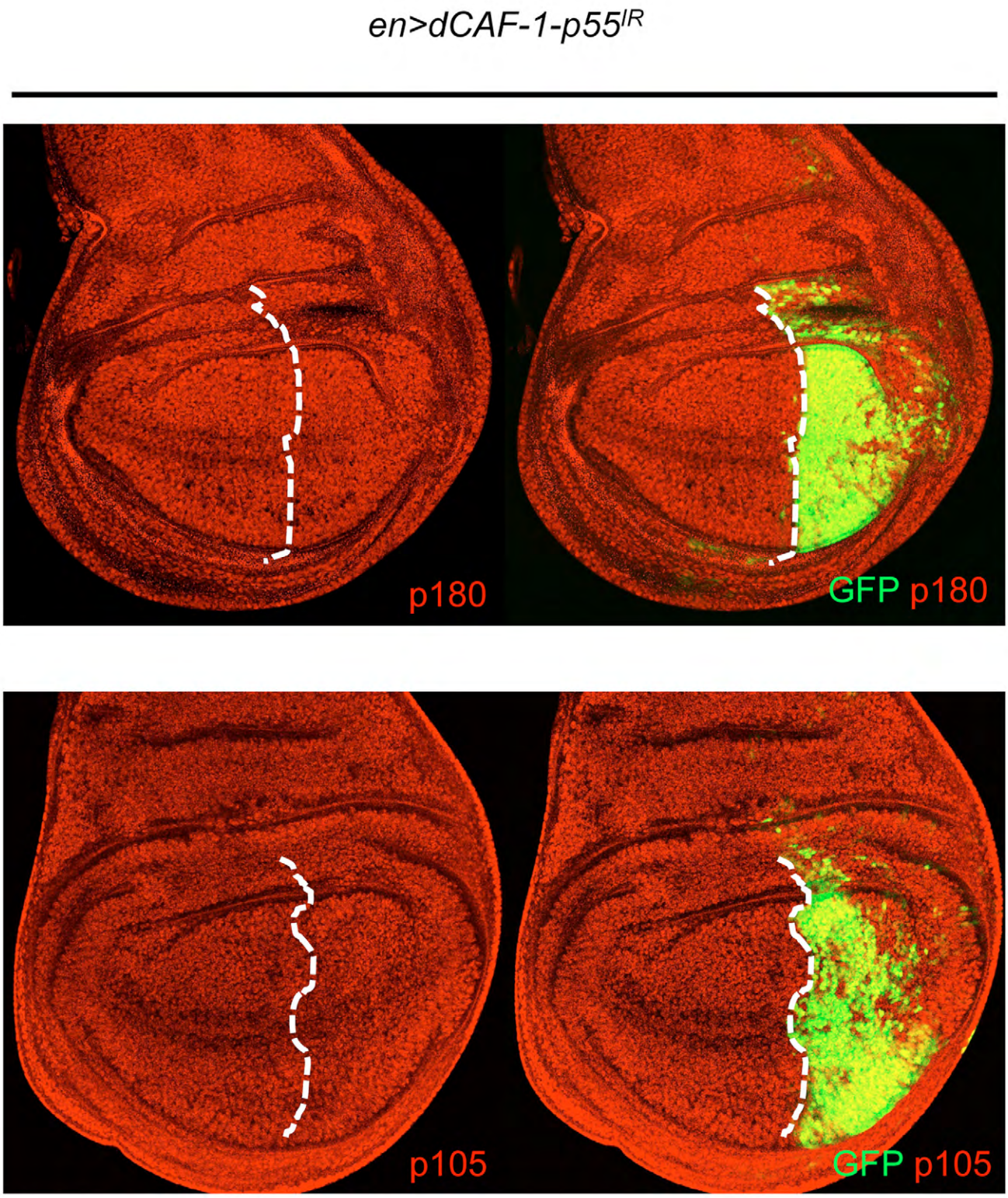

Fig. S5. Knockdown of dCAF-1-p55 does not lead to a reduction in the protein level of dCAF-1-p180 or dCAF-1-p105. Knocking down dCAF-1-p55 at the wing disc posterior (as indicated in green) does not apparently affect the level of dCAF-1-p180 or dCAF-1-p105 (red). The full genotype of *en>dCAF-1-p55^{IR}* is *en-Gal4, UAS-GFP/+; UAS-dCAF-1-p55^{IR}/+*.

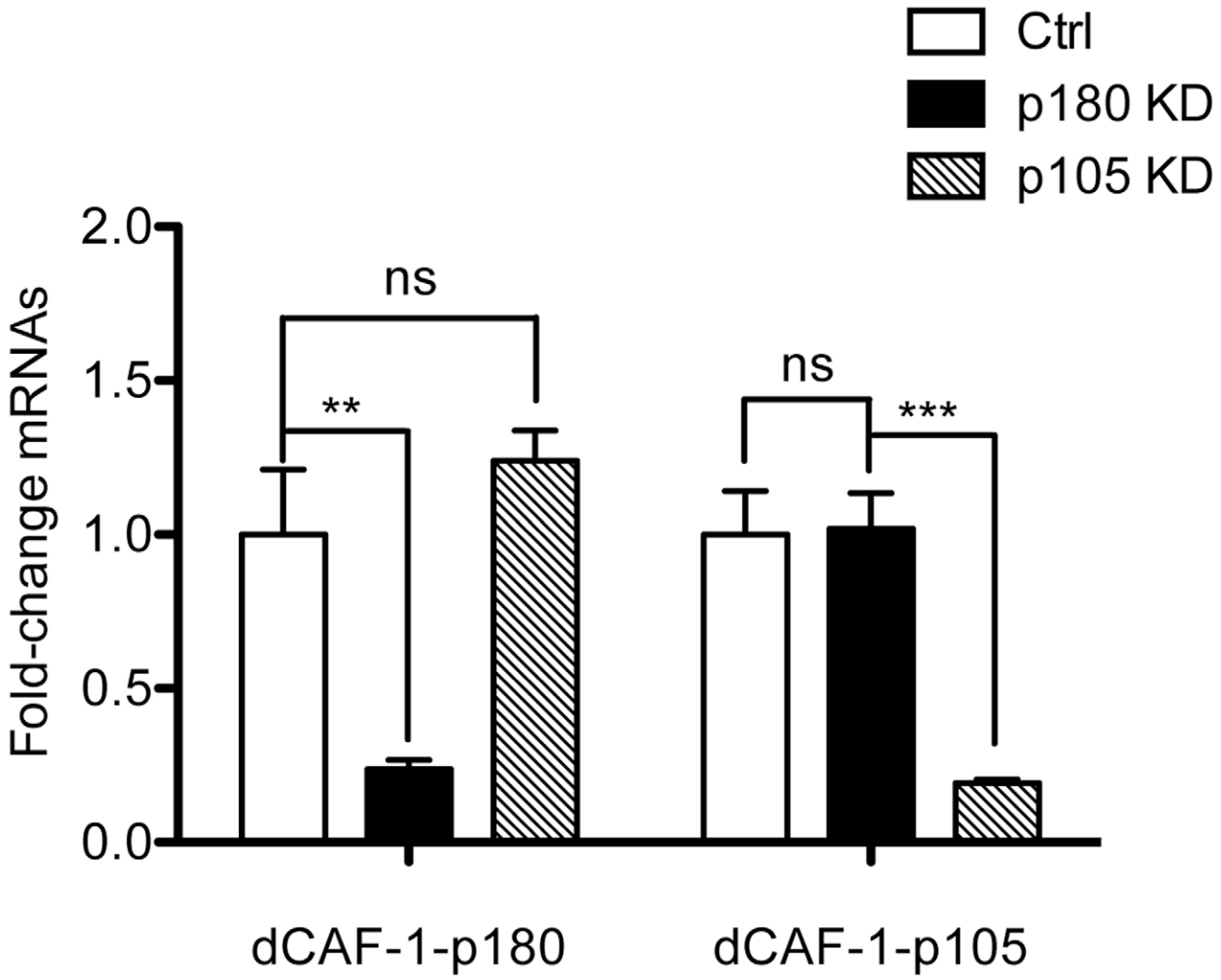

Fig. S6. Knockdown of dCAF-1-p180 does not affect the transcription of *dCAF-1-p105* and vice versa. Quantitative RT-PCR was used to monitor the transcription of *dCAF-1-p180* and *dCAF-1-p105* with or without RNAi to one of them. Ctrl, second instar larvae of *da-Gal4/+*; p180KD, second instar larvae of *da-Gal4/dCAF-1-p180^{IR}*; p105KD, second instar larvae of *da-Gal4/dCAF-1-p105^{IR}*.

Table S1. Statistics of the fly eyes that were categorized in Fig. 1

Genotype	(–)	(+)	(++)	(+++)	*n* (total)
Ctrl	39	18	2	0	59
smo	34	20	12	0	66
yki	34	16	0	0	50
Egfr	25	15	6	0	46
tkv	24	15	2	0	41
*N**	0	0	0	2	2
H	36	0	0	0	36
Dl	0	4	18	18	40
mam	0	14	15	16	45
eyg	0	5	15	13	33
Rescue‡	45	0	0	0	0

*Most N^{1}/+; *ey-Gal4,UAS-dCAF-1-p105*^{IR}/+ flies are lethal when cultured in 25°C.

‡*ey-Gal4,UAS-dCAF-1-p105*^{IR}*/UAS-HA-dCAF-1-p105*.

Table S2. Primers used to generate constructs for S2 cell transfections

Primer	Sequence (5'-3')
NICD-F	ATGGTCTTGAGTACGCAAAG
NICD-R	TCAAATGTAGATGGCCTCGGAAC
dCAF-1-p105-F	ATGAAGTGCAAGATACCCGAGATTTCGT
dCAF-1-p105-R	GTTAAGTCTAATCTATTGCATTGTCTACTC
dCAF-1-p55-F	ATGGTGGATCGCAGCGATAATG
dCAF-1-p55-R	TTAAGCGGTATTGGTTTCTAACTCG

pAc5.1-Myc, pAc5.1-HA and pAc5.1-Flag vectors were modified from pAc5.1 before being used for the construction of pAc5.1-HA-N^{ICD}, pAc5.1-Flag-dCAF-1-p105, pAc5.1-Flag-dCAF-1-p55 and pAc5.1-Myc-dCAF-1-p105 using the primers above. pAc5.1-Flag-dCAF-1-p180 coding sequence was cut from UAS-dCAF-1-p180 (Song et al., 2007) and cloned into the pAc5.1-Flag vector.

Table S3. Primers used for quantitative PCR

Primer	Sequence (5'-3')
Rp49-F	ACGTTGTGCACCAGGAACTT
Rp49-R	TACAGGCCCAAGATCGTGAA
dCAF-1-p105-F	GATGGTAAGCTGCTGTTAAC
dCAF-1-p105-R	TTCTTCTCCGCATTGTACGG
E(spl)mβ-F	GTGACCATAGCTTGATCCTC
E(spl)mβ-R	CGTTCATGCTGCCAATGAAG
E(spl)m3-F	CGAGCCAGGATCAACAAGTG
E(spl)m3-R	CGGTCAACTCCAGGATATCC
E(spl)m7-F	GTTTCCGTGCTGGATACATC
E(spl)m7-R	CTGCTCCAGTTGGTTGAGAC
GAPDH-F	GTTCAAGTTCGATTCGACCC
GAPDH-R	GTGGACTCCACGATGTATTC
Notch-F	CAGTCGCGCACCAAACACTT
Notch-R	CAGTTCCGCGAACGGTGTTT
dCAF-1-p180-F	ACGAGGAGGATGATGACGAT
dCAF-1-p180-R	CGAGATGCTGCTGCTCTTTT
hh-F	GGAAAAGGATGTCCCTGTTG
hh-R	TCTTGCCGATGGTCTTTAGC
E(spl)mβ enhancer-F	CACATGGCAAGACTTGAGAC
E(spl)mβ enhancer-R	TTGGGATCCCAGATACGATG
hh enhancer-F	ACGCACACTATCACACATCC
hh enhancer-R	CAGCATACTCACAAGACTGG