

<b>Figure</b>	<b>Chrom. I</b>	<b>Chromosome II and III</b>	<b>Temp. °C</b>	
<b>Fig. 1</b>	A $w^{1118} / w^{1118}$	+ / + ; + / +	25	
	B	<i>ap</i> -GAL4 / UAS- <i>APLP2-1</i> ; + / +	25	
	C	<i>sca</i> -GAL4 / UAS- <i>APLP2-1</i> ; + / +	25	
<b>Fig. 2</b>	B	<i>sca</i> -GAL4 <i>AsEs-EGFP</i> / UAS- <i>lacZ</i> or UAS- <i>APP</i> or UAS-.... on II <sup>d</sup> or III <sup>d</sup>	25/29	
	C/D	<i>sca</i> -GAL4 <i>AsEs-EGFP</i> / UAS- <i>lacZ</i> or UAS- <i>APP</i> or UAS-.... on II <sup>d</sup> or III <sup>d</sup>	25	
	E	<i>sca</i> -GAL4 / UAS- <i>APP</i> ; UAS- <i>APP</i> / +	28	
	E	<i>sca</i> -GAL4 / UAS- <i>APP/APLP2</i> ; + / +	25	
	E	<i>sca</i> -GAL4 / UAS- <i>APP/APLP2</i> ; UAS- <i>APP/APLP2</i> / +	25	
<b>Fig. 3</b>	A-a	<i>sca</i> -GAL4 / + ; + / +	25/29	
	A-b	<i>sca</i> -GAL4 / + ; $H^{P8}$	25/29	
	A-c	<i>numb</i> <sup>15</sup> FRT40A <i>sca</i> -GAL4 / + ; + / +	25/29	
	A-d	$N^{spl-1}$ / Y	<i>sca</i> -GAL4 / + ; + / +	25/29
	A-e	<i>sca</i> -GAL4 <i>Su(H)</i> <sup>SF8</sup> / +	25/29	
	A-f	$N^{S5e11}$ / $w^{1118}$	<i>sca</i> -GAL4 / + ; + / +	25/29
	A-a 2xAPP	<i>sca</i> -GAL4 / UAS- <i>APP</i> ; UAS- <i>APP</i> / +	25/29	
	A-b 2xAPP	<i>sca</i> -GAL4 / UAS- <i>APP</i> ; $H^{P8}$ / UAS- <i>APP</i>	25/29	
	A-c 2xAPP	<i>numb</i> <sup>15</sup> FRT40A <i>sca</i> -GAL4 / UAS- <i>APP</i> ; UAS- <i>APP</i> / +	25/29	
	C	$N^{ts1}$ / Y	<i>sca</i> -GAL4 / + ; + / +	21+29
	C	$N^{ts1}$ / Y	<i>sca</i> -GAL4 / UAS- <i>APLP2-1</i> ; + / +	21+29
	D	<i>sca</i> -GAL4 / UAS- <i>numb</i> ; + / +	21	
	D	<i>sca</i> -GAL4 UAS- <i>APP/APLP2</i> / UAS- <i>Numb</i> UAS- <i>APP/APLP2</i> ; + / +	21	
	D	<i>sca</i> -GAL4 UAS- <i>APLP2</i> / UAS- <i>APLP2</i> ; + / +	21	
<b>Fig. 4</b>	B	<i>sca</i> -GAL4 UAS- <i>APP/APLP2</i> / UAS- <i>lacZ</i> ; + / +	25/29	
	B	<i>sca</i> -GAL4 UAS- <i>APP/APLP2</i> / UAS- <i>APP</i> or UAS- <i>APP</i> .... on II <sup>d</sup> or III <sup>d</sup>	25/29	
	C	<i>sca</i> -GAL4 UAS- <i>APP/APLP2</i> / UAS- <i>GFP</i> ; UAS- <i>lacZ</i> / +	25	
	C	<i>sca</i> -GAL4 UAS- <i>APP/APLP2</i> / UAS- <i>APP</i> . $\square$ <i>NPTY</i> ; UAS- <i>APP</i> . $\square$ <i>NPTY</i> / +	25	
	D	<i>sca</i> -GAL4 UAS- <i>GFP</i> / UAS- <i>lacZ</i> ; + / +	29	
	D	<i>sca</i> -GAL4 / +; UAS- <i>APP</i> . $\square$ <i>NPTY</i> UAS- <i>APP</i> . $\square$ <i>NPTY</i> / +	29	
<b>Fig. 5</b>	D	<i>sca</i> -GAL4 x 2xUAS- <i>APP</i> or 2x UAS- <i>APP/APLP2</i> or 2x UAS- <i>APP</i> . $\square$ <i>NPTY</i>	25/29	
	E	<i>sca</i> -GAL4 / UAS- <i>APP</i> ; UAS- <i>Pon.GFP</i> / +	25	
	F	<i>sca</i> -GAL4 UAS- <i>dab-5A</i> / +; UAS- <i>numb.PTB-lacZ</i> / +	25	
	G	<i>sca</i> -GAL4 UAS- <i>dab-5A</i> / UAS- <i>APP</i> ; + / +	25	
	H	<i>sca</i> -GAL4 / UAS- <i>lacZ</i> ; + / +	25	
	H	<i>sca</i> -GAL4 / UAS- <i>APP/APLP2</i> ; + / +	25	
	H	<i>sca</i> -GAL4 / UAS- <i>dab-2</i> ; + / +	25	
	H	<i>sca</i> -GAL4 UAS- <i>APP/APLP2</i> / UAS- <i>dab-2</i> ; + / +	25	
	H	<i>sca</i> -GAL4 / UAS- <i>APP/APLP2</i> ; + / +	28	
	H	<i>sca</i> -GAL4 UAS- <i>dab.RNAi</i> / UAS- <i>APP/APLP2</i> ; + / +	28	
<b>Fig. 6</b>	B	<i>sca</i> -GAL4 / UAS- <i>appl</i> or <i>appl.sd</i> or UAS-.... on II <sup>d</sup> or III <sup>d</sup>	25/29	
	C	<i>sca</i> -GAL4 / UAS- <i>appl.sd</i> ; + / +	25	
	C	<i>sca</i> -GAL4 / UAS- <i>appl.sd</i> ; $H^{P8}$ / +	25	
	C	<i>numb</i> <sup>15</sup> FRT40A <i>sca</i> -GAL4 / UAS- <i>appl.sd</i> ; + / +	25	
	C	$N^{spl-1}$ / Y	<i>sca</i> -GAL4 / UAS- <i>appl.sd</i> ; + / +	25
	C	$N^{S5e11}$ / $w^{1118}$	<i>sca</i> -GAL4 / UAS- <i>appl.sd</i> ; + / +	25
	D	<i>sca</i> -GAL4 / UAS- <i>appl</i> ; + / +	25	
	D	<i>sca</i> -GAL4 / UAS- <i>appl.sd</i> ; + / +	25	
	E	<i>sca</i> -GAL4 / UAS- <i>appl</i> ; UAS- <i>Pon.GFP</i> / +	25	
	F	hs-FLP <i>numb</i> <sup>15</sup> FRT40A <i>sca</i> -GAL4 / arm-LacZ FRT40A ; UAS- <i>appl</i> / + clones: <i>numb</i> <sup>15</sup> FRT40A <i>sca</i> -GAL4 / <i>numb</i> <sup>15</sup> FRT40A ; UAS- <i>appl</i> / +	25+37	
<b>Fig. 7</b>	A	<i>appl</i> <sup>d</sup> / Y		25
	A	<i>appl</i> <sup>d</sup> / Y	UAS- <i>appl</i> / + ; <i>Act5C-GAL4</i> / +	25
	A	$w^{1118}$ / Y	<i>sca</i> -GAL4 / UAS- <i>appl.RNAi</i> ; + / +	29

**Supplementary Table I** Overview of the genotypes used or generated to collect the data displayed in Figures 1-7 of Merdes *et al.* Crosses were performed at the indicated temperatures in tightly regulated incubators with 50-70% humidity on standard *Drosophila* medium. The flies of each cross were transferred to new vials several times to increase the number of offsprings, and the offsprings from the first vial usually were never used for statistical analysis. Recombinants between *sca*-GAL4 and UAS-constructs displaying bristle phenotypes were only used for 2-3 months. If not otherwise indicated,  $w^{1118}$  was present on the X chromosome.