

**Table S2. Examination of melanotic mass-associated genes**

Gene name [ref]	CG no.	RNAi strain no.	<i>Act5C-GAL4</i>	<i>Cg-GAL4</i>	<i>FB-GAL4</i>	Information
<i>abs</i> [67]	CG14637	14637R-2	-, P-L	n.t.	n.t.	
<i>Acn</i> [68]	CG10473	10473R-1	-	n.t.	n.t.	
		10473R-3	-	n.t.	n.t.	
<i>cact</i> [19]	CG5848	5848R-1	-	n.t.	n.t.	BM of <i>ubc9</i> mutant larvae analyzed in [19]
		5848R-3	MM, P-L	n.t.	n.t.	
<i>Cct2</i> [28]	CG18330	18330R-2	n.t.	-	-	
		18330R-3	n.t.	-	-	
<i>CSN5</i> [28]	CG14884	14884R-1	-, MZ	n.t.	n.t.	MZ in 3 <sup>rd</sup> instar larvae
<i>Cul4</i> [28]	CG8711	44829	n.t.	MM	MM	FB, SG, and IDs absent ( <i>Cg-GAL4</i> ); a very rare MM ( <i>FB-GAL4</i> )
		8711R-1	n.t.	-	-	
		8711R-2	n.t.	-	-	
<i>Dcp-1</i> [6]	CG5370	5370R-1	-	n.t.	n.t.	
<i>Dref</i> [28]	CG5838	5838R-1	-, 2 <sup>nd</sup> -L	n.t.	n.t.	
		5838R-4	-, MZ, P-L	n.t.	n.t.	MZ in 3 <sup>rd</sup> instar larvae
<i>gig</i> [69]	CG6975	6975R-2	-	n.t.	n.t.	
		6975R-8	-	n.t.	n.t.	
<i>heix</i> [70]	CG5876	5876R-1	-, P-L	n.t.	n.t.	
		5876R-2	-	n.t.	n.t.	
<i>Hsc70-4</i> [71]	CG4264	4264R-1	-, 2 <sup>nd</sup> -L	n.t.	n.t.	
		4264R-2	-	n.t.	n.t.	
<i>hyx</i> [28]	CG11990	11990R-2	n.t.	MM	-	Figure S1
		11990R-3	n.t.	MM	-	
<i>krz</i> [6]	CG1487	103756	MM, P-L	MM	-	Figure S1
		41559	-	-	-	
		33880 (BL)	-	-	-	
		29523 (BL)	-	-	-	
		<i>krz<sup>dl</sup></i>	n.t.	n.t.	n.t.	A mutant allele; 1 <sup>st</sup> -L
<i>l(2)37Cd</i> [68]	CG10563	10563R-2	-, MZ	n.t.	n.t.	MZ in some 3 <sup>rd</sup> instar larvae
		10563R-3	-, MZ	n.t.	n.t.	
<i>l(2)37Ce</i> [68]	CG17347	17347R-1	-	n.t.	n.t.	
		17347R-2	-	n.t.	n.t.	
<i>l(3)mbn</i> [6]	CG12755	12755R-1	-	n.t.	n.t.	
		12755R-2	-	n.t.	n.t.	
<i>Lim3</i> [72]	CG10699	10699R-4	-	n.t.	n.t.	
		10699R-5	-	n.t.	n.t.	
<i>mib2</i> [68]	CG17492	17492R-1	-	n.t.	n.t.	
		17492R-3	-	n.t.	n.t.	
<i>morgue</i> [73]	CG15437	15437R-1	-	n.t.	n.t.	

		15437R-2	-, MZ	n.t.	n.t.	MZ in pupae
<i>mrn</i> [74]	CG7764	7764R-2	-	n.t.	n.t.	
<i>mRpS30</i> [28]	CG8470	8470R-4	n.t.	MM	-	Figure S1
		8470R-3	n.t.	MM	-	
<i>Nc</i> [6]	CG8091	8091R-1	-, MZ	n.t.	n.t.	MZ in pupae
<i>pita</i> [75]	CG3941	3941R-1	-	n.t.	n.t.	
		3941R-2	-, MZ	n.t.	n.t.	MZ in 3 <sup>rd</sup> instar larvae
<i>Pof</i> [76]	CG3691	3691R-1	-	n.t.	n.t.	
		3691R-3	-	n.t.	n.t.	
<i>pr-set7</i> [6]	CG3307	3307R-3	-, MZ	n.t.	n.t.	MZ in 3 <sup>rd</sup> instar larvae
<i>pUf68</i> [77]	CG12085	12085R-2	MM, 2 <sup>nd</sup> -L	n.t.	n.t.	MM in LG of 2 <sup>nd</sup> instar larvae
		12085R-4	MM, MZ, 2 <sup>nd</sup> -L	n.t.	n.t.	MM in LG of 2 <sup>nd</sup> instar larvae; MZ in trachea
<i>rnh1</i> [78]	CG8729	8729R-1	-	n.t.	n.t.	
		8729R-2	-	n.t.	n.t.	
<i>skpA</i> [6]	CG16983	16983R-2	-, MZ	n.t.	n.t.	MZ in pupae
		16983R-3	-, 2 <sup>nd</sup> -L	n.t.	n.t.	
<i>spag</i> [6]	CG13570	<i>spag</i> <sup>k12101</sup>	n.t.	n.t.	n.t.	A mutant allele; Figure S1
<i>Su(var)205</i> [6]	CG8409	8409R-2	-	n.t.	n.t.	
		8409R-4	-, MZ	n.t.	n.t.	MZ in some pupae
<i>Top3a</i> [79]	CG10123	10123R-1	-, 2 <sup>nd</sup> -L	n.t.	n.t.	
<i>Tsc1</i> [80]	CG6147	6147R-1	-, MZ	n.t.	n.t.	MZ in pupae
		6147R-2	-, P-L	n.t.	n.t.	
<i>ush</i> [35]	CG2762	2762R-4	n.t.	MM	-	Blood cell tumor [35]
		2762R-2	n.t.	MM	-	
<i>Zfrp8</i> [6]	CG3260	3260R-2	-, P-L	n.t.	n.t.	
		3260R-6	-, P-L	n.t.	n.t.	

MM: melanotic masses ("melanotic nodules" [6]). MZ: melanization in larval cuticle, trachea, or pupal cuticle. -: no melanotic mass was observed. n.t.: not tested.

2<sup>nd</sup>-L or 3<sup>rd</sup>-L: 2<sup>nd</sup> or 3<sup>rd</sup> instar larva lethal, respectively. P-L: pupa lethal.

FB, SG, ID, and LG indicate fat body, salivary gland, imaginal disc, and lymph gland, respectively.

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