

Table S1. Melanotic mass formation after RNAi knockdown of various BM components

| Category | Gene | RNAi strain no. | <i>Act5C-GAL4</i> | <i>HmlΔ-GAL4</i> | <i>FB-GAL4</i> | <i>Cg-GAL4</i> | <i>Hsp70-GAL4</i> | |
|-------------------|---------------------|-------------------|----------------------|------------------|----------------|--------------------|-------------------|---------|
| | | | | | | | 48h AEL | 96h AEL |
| control | | | - | - | - | - | - | 2.63 |
| BM | <i>vkg</i> | 106812 | E-L | - | - | 2 nd -L | 73.90 | 36.25 |
| | | 16858R-3 | 1 st -L | - | - | 3 rd -L | 5.40 | - |
| | <i>Cg25C</i> | 104536 | E-L | - | - | 2 nd -L | 75.90 | 27.00 |
| | | 28369 | E-L | - | - | 2 nd -L | 28.00 | - |
| | <i>LanA</i> | 28071 (BL) | - | - | - | 11.32 | 9.04 | 5.16 |
| | | 18873 | - | - | - | 2.67 | - | - |
| | <i>wb</i> | 108020 | P-L | - | - | - | 15.30 | 24.60 |
| | <i>LanB1</i> | 23119 | 3 rd -L * | - | - | 38.39 | - | - |
| | | 23121 | E-L | - | - | 41.81 | - | - |
| | <i>LanB2</i> | 42559 | E-L | - | - | 52.82 | - | - |
| | | 42560 | E-L | - | - | 49.53 | - | - |
| | | 104013 | E-L | - | - | 26.85 | 18.40 | 28.10 |
| | <i>trol</i> | 22642 | - | - | - | - | - | - |
| | | 12497R-1 | P-semi-L | - | - | - | - | - |
| | <i>Ndg</i> | 13208 | - | - | - | - | - | - |
| | | 12908R-3 | P-semi-L | - | - | - | - | - |
| | BM receptor-related | <i>mew</i> (αPS1) | 44890 | P-L | n.t. | n.t. | - | - |
| 1771R-1 | | | - | n.t. | n.t. | - | - | - |
| <i>if</i> (αPS2) | | 100770 | - | n.t. | n.t. | - | - | - |
| | | 44885 | E-L | n.t. | n.t. | - | - | - |
| <i>scb</i> (αPS3) | | 4891 | P-L | - | - | - | - | 13.54 |
| | | 100949 | P-L | - | - | - | - | 28.63 |
| <i>ItgaPS4</i> | | 16827R-2 | - | n.t. | n.t. | - | - | - |
| | | 37172 | - | n.t. | n.t. | - | - | - |
| <i>ItgaPS5</i> | | 6646 | - | n.t. | n.t. | - | - | - |
| | | 100120 | - | n.t. | n.t. | - | - | - |
| <i>mys</i> (βPS) | | 29619 | E-L | - | - | 44.62 | L | 49.64 |
| | | 1560R-1 | E-L | - | - | 0.55 | L | 13.57 |
| | | 33642 (BL) | E-L | - | - | 3.05 | L | 33.96 |
| <i>Itgβv</i> | | 893 | - | n.t. | n.t. | - | - | - |
| | | 1762R-1 | - | n.t. | n.t. | - | - | - |
| <i>Dg</i> | | 107029 | - | - | - | - | 20.10 | 16.80 |
| <i>Dys</i> | | 106401 | - | - | - | - | L | 25.53 |
| | 106578 | - | - | - | - | L | 25.00 | |

The numbers of larvae containing melanotic masses are presented in percentages (%). For each experiment, n ≥ 150.

-: no melanotic mass was observed. n.t.: not tested. *: escapers had melanotic masses.

E-L: embryo lethal. 1st-L, 2nd-L, or 3rd-L: 1st, 2nd, or 3rd instar larva lethal, respectively. P-L: pupa lethal. P-semi-L: pupa semi-lethal. L: lethal (stage not determined).

Act5C-GAL4: ubiquitous expression with early onset [65].

HmlΔ-GAL4: larval hemocytes, lymph gland [40].
FB-GAL4: fat body, wing discs, central nerve system [28].
Cg-GAL4: embryonic and larval hemocytes, fat body [56].
Hsp70-GAL4: heat shock inducible [66].

References

65. Ito K, Awano W, Suzuki K, Hiromi Y, Yamamoto D (1997) The *Drosophila* mushroom body is a quadruple structure of clonal units each of which contains a virtually identical set of neurones and glial cells. *Development* 124: 761-771.
66. Brand AH, Perrimon N (1993) Targeted gene expression as a means of altering cell fates and generating dominant phenotypes. *Development* 118: 401-415.