



**Supplementary Figure 1. Enhancer detector lines reflect mushroom body and antennal lobe expression.** Frontal sections of adult fly brains showing  $\beta$ -galactosidase activity in the mushroom bodies of nine enhancer-detector lines with *lacZ* reporter gene insertions near *Drosophila mef2* (insertion locations shown in Fig. 1). Those lines with insertions closer to *mef2* (left column) exhibit  $\beta$ -galactosidase activity restricted to the mushroom body neurons whereas the lines with slightly more distal insertions (right column) exhibit additional activity throughout the cortex.

**Supplementary Table 1. Intragenic complementation for lethality in *mef2* alleles.<sup>1</sup>**

<i>mef2</i> allele	22-21	22-24	25-34	26-6	26-7	26-49	30-5	44-5	48-7	66-65
<b>78-11</b>	0 (192)	0 (232)	0 (217)	0 (206)	Not tested	1 (203)	13 (97)	0 (193)	0 (220)	0 (185)
<b>66-65</b>	0 (221)	0 (272)	0 (260)	0 (224)	0 (191)	0 (210)	35 (194)	0 (240)	0 (266)	
<b>48-7</b>	0 (315)	0 (307)	0 (282)	0 (230)	0 (210)	0 (203)	0 (208)	0 (304)		
<b>44-5</b>	0 (198)	1 (251)	6 (188)	0 (246)	0 (203)	28 (307)	14 (212)			
<b>30-5</b>	0 (210)	3 (358)	28 (207)	0 (121)	0 (128)	78 (131)				
<b>26-49</b>	0 (174)	0 (227)	45 (252)	0 (235)	0 (234)					
<b>26-7</b>	0 (178)	0 (406)	0 (195)	0 (195)						
<b>26-6</b>	0 (193)	0 (291)	0 (272)							
<b>25-34</b>	0 (223)	0 (598)								
<b>22-24</b>	0 (519)									

<sup>1</sup> Each cell shows the percentage of transheterozygous adult progeny observed out of the number expected. The total numbers of progeny recovered are indicated in parentheses.