

Table S4. List of genes downregulated in *otd*; *Pph13* at less than 1 day old

Gene	GO description	Microarray data	
		Fold change	P-value
Phototransduction			
<i>Rh4</i>	Opsin receptor	-7.52	0
<i>Gβ76C</i>	Gtpase activity	-6.27	0
<i>Rh2</i>	Opsin receptor	-4.2	0
<i>ninaC</i>	Protein kinase and motor activity	-3.7	0
<i>Rh6</i>	Opsin receptor	-7.59	1.00E-05
<i>Arr2</i>	Metarhodopsin binding	-3.45	1.00E-05
<i>ninaE</i>	Opsin receptor	-4.21	3.00E-05
<i>Cpn</i>	Calcium ion binding	-2.67	3.00E-05
<i>trpl</i>	Calcium channel activity	-5.56	0.00012
<i>chp</i>	Rhabdomere development	-3.22	0.00017
<i>Gα49B</i>	GTPase activity	-4.01	0.00031
<i>Rh5</i>	Opsin receptor	-3.4	0.00031
<i>inaF</i>	Channel regulator activity	-2.31	0.00043
<i>Arr1</i>	Metarhodopsin binding	-2.11	0.00602
<i>CG31006</i>	Deactivation of rhodopsin signaling	-3.28	0.00872
<i>Rh3*</i>	Opsin receptor	-2.69	0.03478
Phagocytosis/defense			
<i>CG10233</i>	Engulfment of apoptotic cell	-3.44	1.00E-05
<i>IM4</i>	Defense response	-3.47	0.00024
<i>CG16791</i>	Phagocytosis, engulfment	-2.23	0.00089
<i>TotC</i>	Stress response	-4.73	0.00648
Structural component			
<i>jbug</i>	Actin binding	-2.19	0.00749
Enzymes with unknown biological process			
<i>CG8889</i>	Hydrolase	-3.04	2.00E-05
<i>CG14786</i>	Oxidoreductase activity	-2.2	0.00323
<i>CG9391</i>	Inositol-1(or 4)-monophosphatase activity	-2.56	0.00339
<i>CG12079</i>	NADH dehydrogenase (ubiquinone) activity	-2.62	0.0039
<i>CG16749</i>	Serine-type endopeptidase activity	-2.99	0.00416
<i>Cyp6a17</i>	Cytochrome P450	-2.47	0.00492
<i>YL-1</i>	Histone acetyltransferase activity	-2.52	0.00732
<i>CG3902</i>	Electron carrier activity	-2.29	0.00935
Other			
<i>Slob</i>	Synaptic transmission	-2.83	0.00011
<i>Ank2</i>	Axon extension	-2.06	0.00088
<i>Obp8a</i>	Odorant binding protein	-3.86	0.00508
<i>plexB</i>	Axon guidance	-2.1	0.00978
Unknown			
<i>CG14748</i>	Unknown	-3.45	0.00044
<i>msta</i>	Unknown	-2.86	0.00045
<i>PIP82</i>	Unknown	-2.07	0.00055
<i>CG31036</i>	Unknown	-3.29	0.00105
<i>CG12333</i>	Unknown	-3.09	0.00125
<i>CG18467</i>	Unknown	-2.27	0.00153
<i>CG4000</i>	Unknown	-2.28	0.00196
<i>CG6750</i>	Unknown	-2.76	0.0024
<i>ncRNA</i>	Unknown	-3.4	0.00457
<i>CG7607</i>	Unknown	-2.03	0.00467
<i>CG8343</i>	Unknown	-2.08	0.00469
<i>CG4660</i>	Unknown	-2.81	0.00586
<i>CG31646</i>	Unknown	-2.06	0.00761
<i>CG32114</i>	Unknown	-5.26	0.00767
<i>CG17202</i>	Unknown	-2.53	0.00965

*The expression of *Rh3* shows a downregulation in the double mutant; however, a hybridization defect on one chip in this region resulted in a lower P-value.