

**Table S1** Brood size data for *mel-28* genetic interactors

gene	progeny/adult (N2)	eggs/ adult ( <i>mel-28</i> )	ratio N2 brood size: <i>mel-28</i> brood size	genetic interaction
<i>pat-2</i>	25.3	0.8	31.6	synthetic sterility
<i>pat-6</i>	7.3	0.8	9.1	enhancement
<i>klf-3</i>	13.9	0.0	>3	synthetic sterility
<i>his-67</i>	9.9	2.7	3.7	enhancement
<i>his-68</i>	10.2	0.0	>3	enhancement
<i>pyp-1</i>	2.8	0.0	>3	enhancement
<i>rvvb-2</i>	9.5	0.7	13.6	enhancement
<i>dhc-1</i>	1.7	0.0	>3	enhancement
<i>dyci-1</i>	4	0.0	>3	enhancement
<i>dli-1</i>	16	0.4	40	synthetic sterility
<i>dnc-1</i>	14.1	0.6	23.5	synthetic sterility
<i>cap-1</i>	12	0.6	20	enhancement
<i>cap-2</i>	8.4	1.4	6	enhancement
<i>arp-1</i>	16.7	1.8	9.3	synthetic sterility
<i>npp-2</i>	8.7	0.7	12.4	enhancement
<i>npp-4</i>	14.7	0.0	>3	synthetic sterility
<i>npp-5</i>	18.2	1.8	10.1	synthetic sterility
<i>npp-12</i>	21.3	0.3	71	synthetic sterility
<i>npp-14</i>	16.2	0.0	>3	synthetic sterility
<i>npp-15</i>	16	0.0	>3	synthetic sterility
<i>npp-17</i>	12.3	0.3	41	enhancement
<i>npp-20</i>	8.5	0.0	>3	enhancement
<i>npp-22</i>	25	0.0	>3	synthetic sterility
<i>ima-3</i>	6	0.0	>3	enhancement
<i>vrk-1</i>	4	1.1	3.6	enhancement
<i>lpin-1</i>	5	0.0	>3	enhancement
<i>cct-2</i>	17.3	0.2	86.5	synthetic sterility
<i>stc-1</i>	13.6	1.3	10.5	synthetic sterility
<i>sca-1</i>	13.2	0.0	>3	synthetic sterility
<i>phi-56</i>	12.3	0.0	>3	enhancement
<i>K12H4.4</i>	11.8	0.0	>3	enhancement
<i>ggtb-1</i>	2.6	0.0	>3	enhancement
<i>ykt-6</i>	11.7	1.0	11.7	enhancement
<i>syx-4</i>	24.3	0.4	60.8	synthetic sterility
<i>mua-6</i>	18.5	0.7	26.4	synthetic sterility
<i>syd-9</i>	55	0.2	275	synthetic sterility

<i>arf-3</i>	4.2	0.0	>3	enhancement
<i>hgrs-1</i>	17.8	0.0	>3	synthetic sterility
<i>vps-32.2</i>	11.3	0.0	>3	enhancement
<i>Y61A9LA.10</i>	9.4	0.0	>3	enhancement
<i>eif-1</i>	3.7	0.0	>3	enhancement
<i>Y39C12A.1</i>	20.8	0.7	29.7	synthetic sterility
<i>F52C6.2</i>	16	1.8	8.9	synthetic sterility
<i>F52C6.3</i>	14.7	0.0	>3	synthetic sterility
<i>exos-3</i>	11.2	3.0	3.7	enhancement
<i>alg-1</i>	4.9	0.0	>3	enhancement
<i>cyd-1</i>	27.8	0.0	>3	synthetic sterility
<i>ego-2</i>	15	0.6	25	synthetic sterility
<i>dre-1</i>	9.3	0.0	>3	enhancement
<i>nipi-3</i>	8.1	1.0	8.1	enhancement
<i>hmgs-1</i>	15.7	0.0	>3	synthetic sterility
<i>nhr-25</i>	17.1	0.0	>3	synthetic sterility
<i>nhr-67</i>	23.3	0.0	>3	synthetic sterility
<i>apl-1</i>	32	0.0	>3	synthetic sterility
<i>F19B6.1</i>	15.6	0.0	>3	synthetic sterility
<i>C55A6.9</i>	6.8	0.2	34	enhancement
<i>egl-13</i>	25	0.0	>3	synthetic sterility
<i>sox-2</i>	17	0.0	>3	synthetic sterility
<i>gei-13</i>	15	0.4	37.5	synthetic sterility
<i>Y53F4B.13</i>	3.8	0.0	>3	enhancement
<i>lin-3</i>	26.7	0.7	38.1	synthetic sterility
<i>arx-2</i>	27.2	0.0	>3	synthetic sterility
<i>eat-6</i>	10.9	0.0	>3	enhancement
<i>B0250.7</i>	3.8	1.0	3.8	enhancement
<i>sos-1</i>	7.8	0.0	>3	enhancement

For each strain (N2 or *mel-28*) the number of progeny per adult was tallied. We did this by adding up the total number of mothers and dividing this number by the total number of progeny from at least two RNAi experiments. For the *dhc-1* gene these tallies came from a single RNAi experiment (see methods for details).