

Table S1. Comparison of essential autophagy genes in the *D. melanogaster* larval fat body and *l(2)mbn* cells

Yeast gene	CG number	Flybase designation	Required for autophagy in larval fat body ^a	Required for autophagy in <i>l(2)mbn</i> cells
<i>Atg1</i>	CG10967	<i>DmAtg1</i>	Yes	Yes
<i>Atg2</i>	CG1241	<i>DmAtg2</i>	Yes	Yes
<i>Atg3</i>	CG6687	<i>DmAtg3</i>		Yes
<i>Atg4</i>	CG6194		No	Yes
	CG4428	<i>DmAtg4</i>		No
<i>Atg5</i>	CG1643	<i>DmAtg5</i>	Yes	Yes
<i>Atg6</i>	CG5429	<i>DmAtg6</i>	Variable	Yes
<i>Atg7</i>	CG5489	<i>DmAtg7</i>	Yes	Yes
<i>Atg8</i>	CG32672	<i>DmAtg8a</i>	No	Yes
	CG12334	<i>DmAtg8b</i>		Yes
<i>Atg9</i>	CG3615	<i>DmAtg9</i>		No
<i>Atg12</i>	CG10861	<i>DmAtg12</i>	Yes	Yes
<i>Atg18</i>	CG7986	<i>DmAtg18</i>	Yes	Yes
	CG8678		No	No

The fat body data were generated from a study by Scott R. et al. (Scott, R.C., O. Schuldiner, and T.P. Neufeld. 2004. *Dev. Cell.* 7:167-178) RNAi of 11 *DmAtg* genes showed a significant reduction in LTG high cells ($P < 0.05$), which indicates that these *DmAtg* genes are required for autophagy in *l(2)mbn* cells.

^aScott, R.C., O. Schuldiner, and T.P. Neufeld. 2004. Role and regulation of starvation-induced autophagy in the *Drosophila* fat body. *Dev. Cell.* 7:167-178.

Table S2. Sequences of primers used for the preparation of dsRNAs

Gene Name	Amplicon length	Forward primer sequence	Reverse primer sequence
<i>Atg1</i> (CG10967)	701	TAATACGACTCACTATAGGTGCGGCTCTCCCATGTATATG	TAATACGACTCACTATAGGTGATTTTGTGCTGCTGTGGAC
<i>Atg2</i> (CG1241)	705	TAATACGACTCACTATAGGCCCATGATAGCCAAGCACAAT	TAATACGACTCACTATAGGCCGAGTAGCGAAGGTAACCTTG
<i>Atg3</i> (CG6687)	713	TAATACGACTCACTATAGGATGTGGCCGAATATCTGACG	TAATACGACTCACTATAGGACATCTGTCCACCGTCCAGTG
CG6194	703	TAATACGACTCACTATAGGCCTTCCAAGTTGACCCGACGA	TAATACGACTCACTATAGGACCAATCTCATCGATCTGCT
<i>Atg4</i> (CG4428)	714	TAATACGACTCACTATAGGACATTCGCCGAAGAAACACC	TAATACGACTCACTATAGGTGCGTGGTATGAGGATCTAGGT
<i>Atg5</i> (CG1643)	633	TAATACGACTCACTATAGGAGCCGGAGCCTTCTATCTGA	TAATACGACTCACTATAGGTGCGACATCCATTGCGATTG
<i>Atg6</i> (CG5428)	713	TAATACGACTCACTATAGGGCTGGAGAAGATTAGCGTGCA	TAATACGACTCACTATAGGTAATGGTACCGAAATGCCCG
<i>Atg7</i> (CG5489)	724	TAATACGACTCACTATAGGCCATTGAAGTTTCTTGCCCTG	TAATACGACTCACTATAGGAAGCCTAAAGCTGCGTTGATG
<i>Atg8</i> (CG32672)	351	TAATACGACTCACTATAGGTCCAATAACAAGGAGGACACG	TAATACGACTCACTATAGGCATGCCGTAACCATCTCATCG
CG12334	287	TAATACGACTCACTATAGGCCAGTACAAGAAGGACCCTCG	TAATACGACTCACTATAGGAAGTGCTCTGGTACAGTGCA
<i>Atg9</i> (CG3615)	703	TAATACGACTCACTATAGGACCTTGACTCGTTCTTCTCGC	TAATACGACTCACTATAGGCAGTCCGTTTGATTGCTTC
<i>Atg12</i> (CG10861)	265	TAATACGACTCACTATAGGTTTGTATCTTCTGAAACGCCAC	TAATACGACTCACTATAGGTGATGTCGATCGATTAGCC
<i>Atg18</i> (CG7986)	724	TAATACGACTCACTATAGGAGGACATGAAGGTGGTGACCA	TAATACGACTCACTATAGGCCTGCTCTTATTAGCTGGC
CG8678	707	TAATACGACTCACTATAGGCAAGGTGGAGGAGATATTCGC	TAATACGACTCACTATAGGCAGAAATTTTCGGACTTGGCA
<i>Pten</i>	718	TAATACGACTCACTATAGGTGGAAGAGAATCATGCCAG	TAATACGACTCACTATAGGTGTTCCATCGGACTCGCAA
<i>Tsc1</i>	709	TAATACGACTCACTATAGGCCGATTTATCCCTTGTGGTG	TAATACGACTCACTATAGGCCGATTTATCCCTTGTGGTG
<i>Tsc2</i>	716	TAATACGACTCACTATAGGGTGAATGGATCGACGGTAGCT	TAATACGACTCACTATAGGCCTGATAATCGGTGTCGTGTT
<i>Rheb</i>	502	TAATACGACTCACTATAGGTGACCCCAACATTGAGAACA	TAATACGACTCACTATAGGTATTTCCAACAGTTCCGGCCG
<i>Tor</i>	700	TAATACGACTCACTATAGGCAAGGATCAGAAAGCCGTGAC	TAATACGACTCACTATAGGAAGAGCGTTATGCAAGCAA
<i>S6k</i>	713	TAATACGACTCACTATAGGACAGCTCTGCGAGGAGAATGT	TAATACGACTCACTATAGGCTCGATGGTCTTCTTCCGATT
<i>rpr</i>	227	TAATACGACTCACTATAGGTTCTACATACCCGATCAGGCCG	TAATACGACTCACTATAGGTGACTATTGGTTTCCCCCTG
<i>hid</i>	703	TAATACGACTCACTATAGGAAATCTTCCAGTATCCGCCG	TAATACGACTCACTATAGGTGGCAGACTGGATTATTGCTG
<i>grim</i>	387	TAATACGACTCACTATAGGTGCGCCATCGCTATTTCATC	TAATACGACTCACTATAGGAGCTGCTCCTCATCGTTGTC
<i>sickle</i>	316	TAATACGACTCACTATAGGTGACCGAATACAACATGGTCTG	TAATACGACTCACTATAGGCACCAAGTGTGTAATAATGCATCG
<i>Ras</i>	486	TAATACGACTCACTATAGGGGCCATTCCATTTTTCGAAG	TAATACGACTCACTATAGGCCTGCGGTTGTATTGAACG
<i>phl</i>	710	TAATACGACTCACTATAGGACCCGCGAGAATATTGATGC	TAATACGACTCACTATAGGATCGGCACCTATTGGCACAC
<i>rl</i>	495	TAATACGACTCACTATAGGAGTTTGTCTCATTTTCAGTATGT	TAATACGACTCACTATAGGCTTGCAATCCATCCATCC
<i>th</i>	704	TAATACGACTCACTATAGGCCAAACCGGCAATGACTTCA	TAATACGACTCACTATAGGAGCTGACCCCTCATCAGCTTG
<i>Bruce</i>	723	TAATACGACTCACTATAGGTACACAGAACGTCGCCGCTGT	TAATACGACTCACTATAGGCATCGGCGAACTTCTCGTATG
<i>debcl</i>	718	TAATACGACTCACTATAGGCAAGTTCAAGTCTCTGTCGCT	TAATACGACTCACTATAGGCCTGTGTCATGACCCAGTAGAC
<i>buffy</i>	626	TAATACGACTCACTATAGGTGGAGATTACGTGGAGCAAGG	TAATACGACTCACTATAGGCTTCTCGCCAAATGCGAAC
<i>Ark</i>	726	TAATACGACTCACTATAGGGTCCAGGATATGCCGAAATCA	TAATACGACTCACTATAGGAGTGACCTGCTTGAACCGTGT
<i>p53</i>	590	TAATACGACTCACTATAGGTCTCCAATGATGTGAGTGTCTC	TAATACGACTCACTATAGGTCTCGACGAGCCATTCCTTA
<i>Nc</i>	514	TAATACGACTCACTATAGGATCGCGAGCATATACGCAAG	TAATACGACTCACTATAGGAATATGGCACTATCCCCACCA
<i>lce</i>	714	TAATACGACTCACTATAGGAGTACAACATGCGCCACAAGA	TAATACGACTCACTATAGGGTACGATGGTGGTATGACAG
<i>Dcp-1</i>	705	TAATACGACTCACTATAGGTGCGTAACAGAAACTACGGAG	TAATACGACTCACTATAGGGGAATGGTGGATAGGAGAAG
<i>Damm</i>	695	TAATACGACTCACTATAGGATGATCTGCCGAAAGAACAG	TAATACGACTCACTATAGGCATAGTTGACCTTCTGTTCCGAC
<i>Dredd</i>	722	TAATACGACTCACTATAGGCAGCGAGTGCAATTTATCGG	TAATACGACTCACTATAGGCGGAGCGTTACTAATGATGGTG
<i>dream</i>	701	TAATACGACTCACTATAGGAGTTTGAACGGCTCTCCCT	TAATACGACTCACTATAGGTTCACCTTTCAGCTTCCAGCTG
<i>decay</i>	704	TAATACGACTCACTATAGGCGAGGACACATACGAGAATTGC	TAATACGACTCACTATAGGATTCGACTGGTACTGCTAGGCC
<i>Hs</i>	708	TAATACGACTCACTATAGGATTGGAGACACCTTCAGACTCG	TAATACGACTCACTATAGGAGTCTGTGCTATGTCCTCTCT
<i>hid_2</i>	601	TAATACGACTCACTATAGGCCGAGCAAAACTTGACTTGAG	TAATACGACTCACTATAGGGGTACATCTGACCCACTCGTA
<i>Ras_2</i>	565	TAATACGACTCACTATAGGCAGCGCAATTAATTTGGTGC	TAATACGACTCACTATAGGCGCATATACTGATCCCGCAT
<i>phl_2</i>	709	TAATACGACTCACTATAGGACGAGCACCTTGAACACAATC	TAATACGACTCACTATAGGCGCCAAACAGTTCGTACATCAC
<i>rl_2</i>	141	TAATACGACTCACTATAGGAATTCGAGCGGATCAGTAG	TAATACGACTCACTATAGGCATGCCATAAGCTCCTTCA
<i>Dcp-1_2</i>	489	TAATACGACTCACTATAGGTCAACAATGGCTCCTGGTACAT	TAATACGACTCACTATAGGTTTCTATTGGCAAGGCTCTCGC
<i>debcl_2</i>	465	TAATACGACTCACTATAGGCAGTCCCGTTGAAATTCAGA	TAATACGACTCACTATAGGTTGCTGCTGAGGCCCTTTGTT
<i>Ark_2</i>	662	TAATACGACTCACTATAGGGATCATTCTGATGACGCTTACGC	TAATACGACTCACTATAGGGGGCATTCCAAGCAGTTGAATC
<i>p53_2</i>	370	TAATACGACTCACTATAGGAATGATAGCCGAGACTGCGAC	TAATACGACTCACTATAGGTACCCGTTAAACGCCTTACG
<i>Bruce_2</i>	693	TAATACGACTCACTATAGGTCCCTGGCTGAGAAAGCATATC	TAATACGACTCACTATAGGTTATCACGTTGGCACCAAGTGT
<i>lce_2</i>	415	TAATACGACTCACTATAGGCAGCCCAACGATCACACAGAT	TAATACGACTCACTATAGGCATATCGCTGTGATTCTGCG
<i>buffy_2</i>	481	TAATACGACTCACTATAGGCCACACTACATCCGCATCAC	TAATACGACTCACTATAGGAACGTTGTGTTGATGCCACT