

Table S1. List of genes included in the analysis. Gene families are identified using the *Drosophila melanogaster* Ensembl ID.

Gene family	Description
CG1065	<i>Succinyl coenzyme A synthetase α subunit</i>
CG1081	<i>Ras homolog enriched in brain</i>
CG1088	<i>Vacuolar H⁺-ATPase 26kD E subunit</i>
CG1263	<i>Ribosomal protein L8</i>
CG1268	<i>Vacuolar ATPase M9</i>
CG1404	<i>GTP-binding nuclear protein RAN</i>
CG1519	<i>Proteasome alpha 7 subunit</i>
CG1524	<i>Ribosomal protein S14</i>
CG1532	<i>Glyoxalase</i>
CG1598	<i>Arsenite translocating ATPase</i>
CG1721	<i>Phosphoglycerate mutase</i>
CG1751	<i>Signal peptidase complex subunit 2</i>
CG1967	<i>Transmembrane emp24 domain containing 3</i>
CG1970	<i>NADH dehydrogenase (ubiquinone) Fe-S protein 2 (49 kDa)</i>
CG2099	<i>Ribosomal protein L35A</i>
CG2184	<i>Myosin light chain 3</i>
CG2216	<i>Ferritin 1 heavy chain</i>
CG2238	<i>Translation elongation factor 2</i>
CG2239	<i>J domain containing protein</i>
CG2358	<i>Signal peptidase complex (18kD)</i>
CG2827	<i>Transaldolase</i>
CG2922	<i>Eukaryotic translation initiation factor 5C</i>
CG2968	<i>ATP synthase 1</i>
CG3011	<i>Serine hydroxymethyltransferase</i>
CG3018	<i>Ubiquitin-conjugating enzyme E2I</i>
CG3161	<i>Vacuolar H⁺ ATPase 16kD subunit</i>
CG3186	<i>Eukaryotic translation initiation factor 5A</i>
CG3195	<i>Ribosomal protein L12</i>
CG3203	<i>Ribosomal protein L17</i>
CG3244	<i>C-type lectin</i>
CG3283	<i>Succinate dehydrogenase iron sulfur subunit B</i>
CG3314	<i>Ribosomal protein L7A</i>
CG3320	<i>Rab protein 1</i>
CG3395	<i>Ribosomal protein S9</i>
CG3422	<i>Proteasome 28kD subunit 1</i>
CG3595	<i>Myosin regulatory light chain</i>
CG3612	<i>ATP synthase F1 alpha subunit</i>
CG3644	<i>Bicaudal</i>
CG3689	<i>Cleavage and polyadenylation specific factor 5</i>
CG3944	<i>NADH dehydrogenase (ubiquinone) Fe-S protein 8 (23 kDa)</i>
CG3989	<i>Phosphoribosylaminoimidazole carboxylase</i>
CG4008	<i>Methionine aminopeptidase 2</i>
CG4027	<i>Actin</i>
CG4097	<i>Proteasome 26kD subunit</i>
CG4143	<i>Multiprotein bridging factor 1</i>
CG4169	<i>Ubiquinol-cytochrome c reductase</i>
CG4254	<i>Actin depolymerisation factor</i>
CG4307	<i>ATP synthase oligomycin sensitivity conferral protein</i>

CG4422	<i>GDP dissociation inhibitor</i>
CG4464	<i>Ribosomal protein S19</i>
CG4533	<i>Small heat shock protein</i>
CG4581	<i>Thiolase</i>
CG4634	<i>Inorganic pyrophosphatase</i>
CG4651	<i>Ribosomal protein L13</i>
CG4665	<i>Dihydropteridine reductase</i>
CG4692	<i>Mitochondrial ATP synthase F chain</i>
CG4759	<i>Ribosomal protein L27</i>
CG4769	<i>Cytochrome c1</i>
CG4778	<i>Uncharacterized conserved protein containing Chitin-binding domain type 2</i>
CG4800	<i>Translationally controlled tumor protein</i>
CG4863	<i>Ribosomal protein L3</i>
CG4897	<i>Ribosomal protein L7</i>
CG4904	<i>Proteasome 35kD subunit</i>
CG4944	<i>Thymosin beta</i>
CG5119	<i>PolyA-binding protein</i>
CG5214	<i>Dihydrolipoamide S-succinyltransferase</i>
CG5266	<i>Proteasome 25kD subunit</i>
CG5277	<i>Hairy cell leukemia protein 1</i>
CG5345	<i>Ecdysone-induced polypeptide 40kD</i>
CG5362	<i>Cytosolic malate dehydrogenase</i>
CG5502	<i>Ribosomal protein L4</i>
CG5677	<i>Signal peptidase</i>
CG5703	<i>NADH dehydrogenase (ubiquinone) 24 kDa subunit</i>
CG5771	<i>Rab protein 11</i>
CG5788	<i>Ubiquitin-conjugating enzyme 10</i>
CG5825	<i>Histone H3</i>
CG5920	<i>Ribosomal protein S2</i>
CG5934	<i>Short coiled-coil protein</i>
CG6020	<i>NADH dehydrogenase (ubiquinone) 42 kDa subunit</i>
CG6055	<i>Uncharacterized conserved protein containing C-type lectin domain</i>
CG6058	<i>Fructose-bisphosphate aldolase</i>
CG6094	<i>Uncharacterized conserved protein containing protein chain release factor B domain</i>
CG6223	<i>β-coatamer protein</i>
CG6341	<i>Elongation factor 1 beta</i>
CG6343	<i>NADH dehydrogenase (ubiquinone) 1 alpha subcomplex 10 (42 kDa)</i>
CG6554	<i>Arginine methyltransferase 1</i>
CG6692	<i>Cysteine proteinase 1</i>
CG6719	<i>von Hippel-Lindau binding protein 1</i>
CG6764	<i>Ribosomal protein L24</i>
CG6779	<i>Ribosomal protein S3</i>
CG6910	<i>Myo-inositol oxygenase</i>
CG6949	<i>Mitochondrial ribosomal protein L45</i>
CG6957	<i>Glucosamine-6-phosphate deaminase</i>
CG7070	<i>Pyruvate kinase</i>
CG7107	<i>Troponin T</i>
CG7111	<i>Receptor for activated protein kinase C</i>
CG7113	<i>Hydroxyacyl-Coenzyme A dehydrogenase type II</i>
CG7176	<i>Isocitrate dehydrogenase</i>
CG7188	<i>BAX inhibitor 1</i>
CG7283	<i>Ribosomal protein L10A</i>
CG7425	<i>Ubiquitin-conjugating enzyme 1</i>

CG7490	<i>Ribosomal protein P0</i>
CG7610	<i>ATP synthase subunit gamma</i>
CG7726	<i>Ribosomal protein L11</i>
CG7823	<i>Rho GDP dissociation inhibitor</i>
CG7830	<i>Tumor suppressor candidate 3</i>
CG7891	<i>ADP ribosylation factor-like 10C</i>
CG7939	<i>Ribosomal protein L32</i>
CG7998	<i>Mitochondrial malate dehydrogenase 2</i>
CG8053	<i>Eukaryotic translation initiation factor 1A</i>
CG8186	<i>Vacuolar ATP synthase subunit D</i>
CG8189	<i>ATP synthase subunit b</i>
CG8258	<i>Chaperonin subunit 8 (theta)</i>
CG8327	<i>Spermidine synthase</i>
CG8385	<i>ADP ribosylation factor 79F</i>
CG8495	<i>Ribosomal protein S29</i>
CG8636	<i>Eukaryotic translation initiation factor 3 subunit 4</i>
CG8759	<i>Nascent polypeptide associated complex protein alpha subunit</i>
CG8882	<i>Eukaryotic translation initiation factor 3 subunit 2 (beta)</i>
CG8905	<i>Superoxide dismutase 2 (Mn)</i>
CG8922	<i>Ribosomal protein S5</i>
CG8974	<i>Uncharacterized protein containing ring finger domain</i>
CG8983	<i>Protein disulphide isomerase isoform Erp60</i>
CG9022	<i>Oligosaccharyltransferase 48kD subunit</i>
CG9075	<i>Eukaryotic translation initiation factor 4A</i>
CG9124	<i>Eukaryotic translation initiation factor 3 subunit 3 (gamma)</i>
CG9172	<i>NADH dehydrogenase (ubiquinone) Fe-S protein 7</i>
CG9212	<i>NIPSNAP protein</i>
CG9327	<i>Proteasome 29kD subunit</i>
CG9399	<i>Brain protein 44</i>
CG9429	<i>Calreticulin</i>
CG9543	<i>Coatamer protein complex subunit epsilon</i>
CG9677	<i>Eukaryotic translation initiation factor 3 subunit 6</i>
CG9762	<i>NADH dehydrogenase (ubiquinone) 1 beta subcomplex 5</i>
CG9836	<i>Uncharacterized conserved protein containing NifU domain</i>
CG9946	<i>Eukaryotic translation initiation factor 2 alpha subunit</i>
CG10149	<i>Proteasome p44.5 subunit</i>
CG10306	<i>Eukaryotic translation initiation factor 3 subunit 12</i>
CG10640	<i>Ubiquitin-conjugating enzyme E2</i>
CG10652	<i>Ribosomal protein L30</i>
CG10664	<i>Cytochrome c oxidase polypeptide IV</i>
CG10691	<i>Prohibitin protein Wph</i>
CG10753	<i>Small nuclear ribonucleoprotein D1 polypeptide 16kDa</i>
CG10938	<i>Proteasome alpha 5 subunit</i>
CG10944	<i>Ribosomal protein S6</i>
CG11027	<i>ADP ribosylation factor 102F</i>
CG11140	<i>Aldehyde dehydrogenase type III</i>
CG11276	<i>Ribosomal protein S4</i>
CG11522	<i>Ribosomal protein L6</i>
CG11654	<i>S-adenosyl-L-homocysteine hydrolase</i>
CG11738	<i>Uncharacterized conserved protein containing K homology RNA-binding domain</i>
CG11785	<i>Transmembrane trafficking protein</i>
CG11793	<i>Copper/zinc superoxide dismutase</i>
CG11876	<i>Pyruvate dehydrogenase E1-beta subunit</i>

CG11899	<i>Phosphoserine aminotransferase 1</i>
CG11901	<i>Translation elongation factor 1 gamma</i>
CG11979	<i>DNA directed RNA polymerase II polypeptide E</i>
CG11981	<i>Proteasome beta 3 subunit</i>
CG12079	<i>NADH dehydrogenase (ubiquinone) Fe-S protein 3 (30 kDa)</i>
CG12530	<i>Cell division cycle 42 (CDC42)</i>
CG13630	<i>Methionine aminopeptidase 1</i>
CG13880	<i>Mitochondrial ribosomal protein L17</i>
CG13887	<i>B-cell receptor-associated protein 31</i>
CG14207	<i>Heat shock protein hsp21.4</i>
CG14437	<i>Ubiquinone biosynthesis protein COQ7</i>
CG14542	<i>Uncharacterized conserved protein containing SNF7 domain</i>
CG14792	<i>Ribosomal protein SA (Laminin receptor)</i>
CG14996	<i>Calponin</i>
CG15081	<i>Prohibitin 2</i>
CG15693	<i>Ribosomal protein S20</i>
CG16944	<i>ADP/ATP translocase</i>
CG16983	<i>S-phase kinase-associated protein 1A (Skp1)</i>
CG17146	<i>Adenylate kinase 1</i>
CG17489	<i>Ribosomal protein L5</i>
CG17654	<i>Enolase</i>
CG17737	<i>Protein translation factor SUI1</i>
CG17870	<i>14-3-3 zeta</i>
CG17903	<i>Cytochrome c</i>
CG18495	<i>Proteasome subunit alpha type 6</i>
CG30499	<i>Ribulose-5-phosphate-3-epimerase</i>
CG31692	<i>Fructose-1,6-bisphosphatase</i>
CG32031	<i>Arginine kinase</i>
CG32171	<i>Four and a half LIM domains</i>
CG32672	<i>GABA receptor associated protein</i>
CG33104	<i>Transmembrane emp24 domain containing 4</i>
