

Table S2. Desiccation survival assay results for the mutant screen. Estimated mean survival rates $\pm$ standard errors based on n replicates at 98% and 60% RH are presented with the statistical significance (p-values) calculated by beta regression. *daf-2;lea-1(RNAi)* and *daf-2; $\Delta\Delta djr$* were compared to *daf-2*, all other mutants are compared to N2. Desiccation sensitivity phenotype is categorized as desiccation tolerant (–), sensitive (+), very sensitive (++) and extremely sensitive (+++). See the text for details.

		98% RH			60% RH		
Strain	n	Survival	p-value	Sensitivity	Survival	p-value	Sensitivity
N2	12	87.5 $\pm$ 3.1			82.9 $\pm$ 3.6		
<i>daf-2</i>	4	87.8 $\pm$ 3.4			91.1 $\pm$ 2.6		
Heat shock proteins							
<i>F08H9.3</i>	2	62.4 $\pm$ 13.4	0.026	+	10.1 $\pm$ 6.3	< 0.001	+++
<i>F08H9.4</i>	2	76.2 $\pm$ 11.2	0.251	–	52.3 $\pm$ 12.9	0.012	+
<i>hsp-12.6</i>	2	87.1 $\pm$ 7.8	0.959	–	66.3 $\pm$ 12.1	0.135	–
<i>hsp-70</i>	4	81.8 $\pm$ 6.9	0.408	–	45.3 $\pm$ 9.2	< 0.001	++
Intrinsically disordered proteins							
<i>dur-1</i>	5	49.7 $\pm$ 8.9	< 0.001	++	12.4 $\pm$ 4.6	< 0.001	+++
<i>daf-2;lea-1(RNAi)</i>	2	97.0 $\pm$ 2.1	0.039	–	32.9 $\pm$ 6.2	< 0.001	++
Reactive oxygen species defense enzymes							
<i>sod-1</i>	2	78.3 $\pm$ 10.7	0.333	–	53.2 $\pm$ 12.9	0.014	+
<i>sod-3</i>	2	80.8 $\pm$ 10.0	0.468	–	85.0 $\pm$ 8.2	0.814	–
<i>sod-5</i>	3	86.0 $\pm$ 6.7	0.832	–	66.0 $\pm$ 9.9	0.076	–
<i>gpx-2</i>	3	85.4 $\pm$ 6.9	0.767	–	50.2 $\pm$ 10.6	0.002	+
<i>gpx-6</i>	2	66.9 $\pm$ 12.8	0.058	–	32.8 $\pm$ 11.9	< 0.001	++
<i>gpx-7</i>	2	78.9 $\pm$ 10.5	0.363	–	15.5 $\pm$ 8.4	< 0.001	+++
<i>ctl-1</i>	2	84.4 $\pm$ 8.8	0.720	–	42.4 $\pm$ 12.8	0.001	++
<i>ctl-3</i>	2	86.6 $\pm$ 8.0	0.915	–	89.3 $\pm$ 6.6	0.447	–
Xenobiotic detoxification enzymes							
<i>daf-2;$\Delta\Delta djr$</i>	2	97.9 $\pm$ 1.7	0.016	–	79.9 $\pm$ 5.3	0.046	+
<i>glod-4</i>	2	78.8 $\pm$ 10.6	0.357	–	74.2 $\pm$ 10.9	0.407	–
<i>cdr-2</i>	2	62.4 $\pm$ 13.4	0.026	+	16.6 $\pm$ 8.7	< 0.001	+++
<i>cdr-3</i>	2	80.1 $\pm$ 10.2	0.429	–	64.3 $\pm$ 12.3	0.099	+
<i>alh-2</i>	2	80.7 $\pm$ 10.0	0.460	–	67.0 $\pm$ 12.0	0.151	–
Polyamine biosynthesis enzymes							
<i>odc-1</i>	2	56.9 $\pm$ 13.7	0.009	+	20.5 $\pm$ 9.8	< 0.001	+++
<i>spds-1</i>	3	9.7 $\pm$ 5.1	< 0.001	+++	5.0 $\pm$ 2.9	< 0.001	+++
Fatty acid modification enzymes							
<i>fat-5</i>	2	81.9 $\pm$ 9.7	0.534	–	9.5 $\pm$ 6.0	< 0.001	+++
<i>fat-6</i>	2	48.4 $\pm$ 13.9	0.002	++	7.3 $\pm$ 4.9	< 0.001	+++
<i>fat-7</i>	2	50.1 $\pm$ 13.9	0.002	+	5.3 $\pm$ 3.8	< 0.001	+++
<i>fat-3</i>	2	61.2 $\pm$ 13.5	0.021	+	10.2 $\pm$ 6.3	< 0.001	+++
<i>fat-4</i>	4	27.5 $\pm$ 8.5	< 0.001	++	22.5 $\pm$ 7.3	< 0.001	+++
<i>fat-1</i>	2	79.2 $\pm$ 10.5	0.376	–	64.8 $\pm$ 12.2	0.107	–
<i>fat-1,4</i>	2	63.3 $\pm$ 13.3	0.031	+	4.3 $\pm$ 3.2	< 0.001	+++
<i>cyp-33C9</i>	2	78.6 $\pm$ 10.6	0.350	–	57.2 $\pm$ 12.8	0.030	+
Putative hygro-sensation proteins							
<i>daf-6</i>	2	69.8 $\pm$ 12.4	0.093	–	28.6 $\pm$ 11.4	< 0.001	++
<i>osm-9</i>	2	60.5 $\pm$ 13.5	0.018	+	34.9 $\pm$ 12.2	< 0.001	++
<i>ocr-1,2,4</i>	3	89.9 $\pm$ 5.3	0.700	–	72.8 $\pm$ 9.1	0.262	–
<i>osm-11</i>	3	87.3 $\pm$ 6.3	0.973	–	43.4 $\pm$ 10.5	< 0.001	++
Novel proteins							
<i>cex-1</i>	4	69.2 $\pm$ 8.9	0.025	+	54.5 $\pm$ 9.2	0.002	+
<i>cex-2</i>	4	57.5 $\pm$ 9.8	< 0.001	+	16.5 $\pm$ 6.1	< 0.001	+++
<i>try-5</i>	4	73.0 $\pm$ 8.5	0.064	–	37.6 $\pm$ 8.9	< 0.001	++
<i>ugt-1</i>	4	67.6 $\pm$ 9.1	0.016	+	31.0 $\pm$ 8.4	< 0.001	++
<i>C04G2.2</i>	4	86.3 $\pm$ 5.7	0.850	–	51.9 $\pm$ 9.2	< 0.001	+