**Supplemental Table S4** \*Indicates experiment shown in Figures.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S4A. Genes required for *pgrn-1(-)* resistance to ER stress** | | | | | | | |
| **Treatment** | **Repeat #** | **Tunicamycin**  **(µg/mL)** | **Genotype** | **Fraction developing to L4 ± SD** | **N** | **P vs.**  **control** | **P vs. *pgrn-1*** |
| ER stress | 1\* | 0 | Control | 1.00 ± 0.02 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 1.00 ± 0.01 | N = 150 | n.s. | -- |
|  |  |  | *ire-1* | 1.00 ± 0.09 | N = 150 | n.s. | n.s. |
|  |  |  | *pgrn-1; ire-1* | 1.00 ± 0.02 | N = 150 | n.s. | n.s. |
|  |  | 1 | Control | 0.09 ± 0.07 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.62 ± 0.02 | N = 150 | P < 0.001 | -- |
|  |  |  | *ire-1* | 0.07 ± 0.02 | N = 150 | n.s. | P < 0.001 |
|  |  |  | *pgrn-1; ire-1* | 0.01 ± 0.02 | N = 150 | n.s. | P < 0.001 |
|  |  | 5 | Control | 0.07 ± 0.05 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.68 ± 0.05 | N = 150 | P < 0.001 | -- |
|  |  |  | *ire-1* | 0.00 ± 0.00 | N = 150 | n.s. | P < 0.001 |
|  |  |  | *pgrn-1; ire-1* | 0.00 ± 0.00 | N = 150 | n.s. | P < 0.001 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S4B. Genes required for *pgrn-1(-)* resistance to ER stress** | | | | | | | |
| **Treatment** | **Repeat #** | **Tunicamycin**  **(µg/mL)** | **Genotype** | **Fraction developing to L4 ± SD** | **N** | **P vs.**  **control** | **P vs. *pgrn-1*** |
| ER stress | 1\* | 0 | Control | 1.00 ± 0.01 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 1.00 ± 0.01 | N = 150 | n.s. | -- |
|  |  |  | *daf-2* | 1.00 ± 0.03 | N = 150 | n.s. | n.s. |
|  |  |  | *pgrn-1; daf-2* | 1.00 ± 0.00 | N = 150 | n.s. | n.s. |
|  |  |  | *daf-16* | 1.00 ± 0.04 | N = 150 | n.s. | n.s. |
|  |  |  | *daf-16 pgrn-1* | 1.00 ± 0.02 | N = 150 | n.s. | n.s. |
|  |  | 1 | Control | 0.06 ± 0.02 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.51 ± 0.07 | N = 150 | P < 0.001 | -- |
|  |  |  | *daf-2* | 0.96 ± 0.00 | N = 150 | P < 0.001 | P < 0.001 |
|  |  |  | *pgrn-1; daf-2* | 0.79 ± 0.10 | N = 150 | P < 0.001 | P < 0.001 |
|  |  |  | *daf-16* | 0.23 ± 0.06 | N = 150 | P < 0.001 | P < 0.001 |
|  |  |  | *daf-16 pgrn-1* | 0.12 ± 0.03 | N = 150 | n.s. | P < 0.001 |
|  |  | 5 | Control | 0.02 ± 0.02 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.44 ± 0.06 | N = 150 | P < 0.001 | -- |
|  |  |  | *daf-2* | 0.96 ± 0.01 | N = 150 | P < 0.001 | P < 0.001 |
|  |  |  | *pgrn-1; daf-2* | 0.80 ± 0.05 | N = 150 | P < 0.001 | P < 0.001 |
|  |  |  | *daf-16* | 0.12 ± 0.03 | N = 150 | P < 0.05 | P < 0.001 |
|  |  |  | *daf-16 pgrn-1* | 0.07 ± 0.02 | N = 150 | n.s. | P < 0.001 |
|  | 2 | 0 | Control | 1.00 ± 0.042 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 1.00 ± 0.076 | N = 150 | n.s. | -- |
|  |  |  | *daf-2* | 1.00 ± 0.083 | N = 150 | n.s. | n.s. |
|  |  |  | *pgrn-1; daf-2* | 1.00 ± 0.064 | N = 150 | n.s. | n.s. |
|  |  | 2 | Control | 0.57 ± 0.110 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.83 ± 0.061 | N = 150 | P < 0.001 | -- |
|  |  |  | *daf-2* | 0.93 ± 0.122 | N = 150 | P < 0.001 | n.s. |
|  |  |  | *pgrn-1; daf-2* | 1.03 ± 0.072 | N = 150 | P < 0.001 | n.s. |
|  |  | 5 | Control | 0.19 ± 0.000 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.49 ± 0.122 | N = 150 | P < 0.001 | -- |
|  |  |  | *daf-2* | 0.62 ± 0.200 | N = 150 | P < 0.001 | n.s. |
|  |  |  | *pgrn-1; daf-2* | 0.56 ± 0.095 | N = 150 | P < 0.001 | n.s. |
|  | 3 | 0 | Control | 1.00 ± 0.012 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 1.00 ± 0.042 | N = 150 | n.s. | -- |
|  |  |  | *daf-2* | 1.00 ± 0.031 | N = 150 | n.s. | n.s. |
|  |  |  | *pgrn-1; daf-2* | 1.00 ± 0.023 | N = 150 | n.s. | n.s. |
|  |  | 2 | Control | 0.52 ± 0.216 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.80 ± 0.110 | N = 150 | P < 0.01 | -- |
|  |  |  | *daf-2* | 1.26 ± 0.111 | N = 150 | P < 0.001 | P < 0.001 |
|  |  |  | *pgrn-1; daf-2* | 0.85 ± 0.053 | N = 150 | P < 0.001 | n.s. |
|  | 4 | 0 | Control | 1.00 ± 0.035 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 1.00 ± 0.061 | N = 150 | n.s. | -- |
|  |  |  | *daf-2* | 1.00 ± 0.020 | N = 150 | n.s. | n.s. |
|  |  |  | *pgrn-1; daf-2* | 1.00 ± 0.050 | N = 150 | n.s. | n.s. |
|  |  |  | *daf-16* | 1.00 ± 0.058 | N = 150 | n.s. | n.s. |
|  |  |  | *daf-16 pgrn-1* | 1.00 ± 0.053 | N = 150 | n.s. | n.s. |
|  |  | 2 | Control | 0.41 ± 0.130 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.88 ± 0.069 | N = 150 | P < 0.001 | -- |
|  |  |  | *daf-2* | 0.86 ± 0.070 | N = 150 | P < 0.001 | n.s. |
|  |  |  | *pgrn-1; daf-2* | 1.06 ± 0.042 | N = 150 | P < 0.001 | P < 0.05 |
|  |  |  | *daf-16* | 0.56 ± 0.060 | N = 150 | n.s. | P<0.001 |
|  |  |  | *daf-16 pgrn-1* | 0.43 ± 0.040 | N = 150 | n.s. | P < 0.001 |
|  |  | 5 | Control | 0.40 ± 0.053 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.82 ± 0.072 | N = 150 | P < 0.001 | -- |
|  |  |  | *daf-2* | 0.81 ± 0.061 | N = 150 | P < 0.001 | n.s. |
|  |  |  | *pgrn-1; daf-2* | 0.64 ± 0.106 | N = 150 | P < 0.01 | P < 0.05 |
|  |  |  | *daf-16* | 0.63 ± 0.150 | N = 150 | P < 0.01 | P<0.05 |
|  |  |  | *daf-16 pgrn-1* | 0.46 ± 0.050 | N = 150 | n.s. | P < 0.001 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S4C. Constitutively active DAF-16 does not affect ER stress resistance of *pgrn-1* mutants** | | | | | | | |
| **Treatment** | **Repeat #** | **Tunicamycin**  **(µg/mL)** | **Genotype** | **Fraction developing to L4 ± SD** | **N** | **P vs.**  **control** | **P vs. *pgrn-1*** |
| ER stress | 1\* | 0 | Control | 1.00 ± 0.042 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 1.00 ± 0.076 | N = 150 | n.s. | -- |
|  |  |  | *daf-16; muIs113* | 1.00 ± 0.042 | N = 150 | n.s. | n.s. |
|  |  |  | *pgrn-1; muIs113* | 1.00 ± 0.031 | N = 150 | n.s. | n.s. |
|  |  | 2 | Control | 0.57 ± 0.110 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.83 ± 0.061 | N = 150 | P < 0.001 | -- |
|  |  |  | *daf-16; muIs113* | 0.56 ± 0.042 | N = 150 | n.s. | P < 0.001 |
|  |  |  | *pgrn-1; muIs113* | 0.76 ± 0.031 | N = 150 | P < 0.05 | n.s. |
|  |  | 5 | Control | 0.19 ± 0.000 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.49 ± 0.122 | N = 150 | P < 0.001 | -- |
|  |  |  | *daf-16; muIs113* | 0.34 ± 0.064 | N = 150 | n.s. | n.s. |
|  |  |  | *pgrn-1; muIs113* | 0.62 ± 0.053 | N = 150 | P < 0.001 | n.s. |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S4D. Genes required for *pgrn-1(-)* resistance to ER stress** | | | | | | | |
| **Treatment** | **Repeat #** | **Tunicamycin**  **(µg/mL)** | **Genotype** | **Fraction developing to L4 ± SD** | **N** | **P vs.**  **control** | **P vs.**  ***pgrn-1*** |
| ER stress | 1\* | 0 | Control | 1.00 ± 0.05 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 1.00 ± 0.07 | N = 150 | n.s. | -- |
|  |  |  | *pmk-1* | 1.00 ± 0.02 | N = 150 | n.s. | n.s. |
|  |  |  | *pgrn-1; pmk-1* | 1.00 ± 0.05 | N = 150 | n.s. | n.s. |
|  |  | 1 | Control | 0.14 ± 0.06 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.67 ± 0.11 | N = 150 | P < 0.001 | -- |
|  |  |  | *pmk-1* | 0.01 ± 0.01 | N = 150 | n.s. | P < 0.001 |
|  |  |  | *pgrn-1; pmk-1* | 0.00 ± 0.00 | N = 150 | n.s. | P < 0.001 |
|  |  | 5 | Control | 0.06 ± 0.02 | N = 150 | -- | -- |
|  |  |  | *pgrn-1* | 0.31 ± 0.12 | N = 150 | P < 0.001 | -- |
|  |  |  | *pmk-1* | 0.00 ± 0.00 | N = 150 | n.s. | P < 0.001 |
|  |  |  | *pgrn-1; pmk-1* | 0.00 ± 0.00 | N = 150 | n.s. | P < 0.001 |