**Table S2.** **Involvement of *mir-71* and the microRNA machinery in KGB-1’s detrimental effects on lifespan of fertile and sterile worms.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Strain** | **Median Lifespan (days a)** | **Median lifespan fold change d** | **n** | **Log-Rank p-value d** |
| **EV control** | ***vhp-1*****RNAi** | **EV control** | ***vhp-1*****RNAi** |
| *wt* ***b*** | 15.8 | 7.9 | 0.50 | 116 | 129 | <0.0001 |
| *wt; cdc-25.1(RNAi)***c** | 20.1 | 9.4 | 0.47 | 103 | 146 | <0.0001 |
| *wt; cdc-25.1(RNAi)***c** | 22.3 | 8.1 | 0.37 | 81 | 115 | <0.0001 |
| *kgb-1(km21); cdc-25.1(RNAi)* | 17.2 | 6.7 | 0.39 | 116 | 113 | <0.0001 |
| *daf-16(mu86); cdc-25.1(RNAi)* | 9.7 | 7.8 | 0.81 | 120 | 118 | <0.0001 |
| *mir-71(n4115); cdc-25.1(RNAi)* | 5.7 | 7.4 | 1.31**d** | 113 | 118 | <0.0001**d** |
| *wt* ***e****; cdc-25.1(RNAi)* | 21.3 | 9.2 | 0.43 | 75 | 25 | <0.0001 |
| *mir-71(n4115)* ***e****; cdc-25.1(RNAi)* | 7.2 | 7.8 | 1.08 | 53 | 68 | 0.0146 |
| *mir-71 o.e.[nls286]* ***e****;**cdc-25.1(RNAi)* | 23.5 | 11.0 | 0.47 | 66 | 55 | <0.0001 |
| *wt* ***e****; cdc-25.1(RNAi)* | 11.8 | 6.3 | 0.54 | 78 | 92 | <0.0001 |
| *mir-71(n4115)* ***e****; cdc-25.1(RNAi)* | 4.1 | 5.9 | 1.44 | 94 | 100 | <0.0001 |
| *mir-71 o.e.[nls286]* ***e****;**cdc-25.1(RNAi)* | 21.5 | 7.2 | 0.33 | 96 | 99 | <0.0001 |
| *wt* ***e****; cdc-25.1(RNAi)* | 9.1 | 6.7 | 0.74 | 89 | 88 | <0.0001 |
| *mir-71(n4115)* ***e****; cdc-25.1(RNAi)* | 4.3 | 6.6 | 1.53 | 94 | 95 | <0.0001 |
| *mir-71 o.e.[nls286]* ***e****;**cdc-25.1(RNAi)* | 16.6 | 7.4 | 0.45 | 88 | 92 | <0.0001 |
| *wt* | 21.5 | 13.3 | 0.62 | 157 | 134 | <0.0001 |
| *kgb-1(km21)* | 12.7 | 11.8 | 0.93 | 112 | 133 | n.s. |
| *daf-16(mu86)* | 13.4 | 13.1 | 0.97 | 154 | 134 | n.s. |
| *mir-71(n4115)* | 7.6 | 7.6 | 1.01 | 161 | 152 | n.s. |
| *wt* | 17.4 | 14.1 | 0.81 | 115 | 132 | <0.0001 |
| *kgb-1(km21)* | 10.8 | 11.2 | 1.03 | 94 | 107 | n.s. |
| *mir-71(n4115)* | 10.7 | 9.8 | 0.92 | 124 | 128 | n.s. |
| *wt* | 18.6 | 13.9 | 0.75 | 137 | 129 | <0.0001 |
| *kgb-1(km21)* | 17.4 | 16.8 | 0.96 | 125 | 98 | n.s. |
| *daf-16(mu86)* | 14.5 | 15.9 | 1.10 | 142 | 129 | n.s. |
| *mir-71(n4115)* | 11.2 | 11.1 | 0.99 | 138 | 133 | n.s. |
| *alg-1(tm492)* | 12.7 | 10.6 | 0.84 | 115 | 65 | n.s. |
| *wt* | 17.7 | 16.0 | 0.91 | 113 | 108 | 0.0027 |
| *kgb-1(km21)* | 13.5 | 13.2 | 0.98 | 96 | 80 | n.s. |
| *mir-71(n4115)* | 8.1 | 6.9 | 0.86 | 116 | 118 | <0.0001 |
| *alg-1(tm492)* | 11.1 | 11.4 | 1.03 | 107 | 64 | n.s. |
| *alg-2(ok304)* | 16.9 | 13.0 | 0.77 | 113 | 120 | <0.0001 |
| *drsh-1(ok369)* | 5.4 | 3.8 | 0.71 | 135 | 105 | <0.0001 |
| *pash-1(mj100)* | 9.9 | 10.4 | 1.06 | 64 | 48 | n.s. |

**a** Days are counted starting at day 2 of adulthood, following *vhp-1* knock-down (or exposure to empty vector control).

**b** Each shade-separated block represents an independent experiment.

**c** *cdc-25.1* RNAi exposure during development was used to disrupt germline proliferation, rendering worms sterile. In color-shaded blocks, all experiments were carried out with sterile worms following development on *cdc-25.1* RNAi.

**d** Red values denote instances where *vhp-1* RNAi has a positive effect on survival. This is presumed to be due to activation of the p38 ortholog PMK-1, a protective (age-invariably) MAPK also negatively regulated by VHP-1 (Twumasi-Boateng et al., 2012). In the absence of the detrimental effects of activated KGB-1, this protection become the dominant outcome of *vhp-1* RNAi.

**e** In marked experiments, lifespan assays were carried out with continuous exposure to EV/*cdc-25.1* or *vhp-1*/*cdc-25.1* RNAi mixtures, rather than transferred to dead *E. coli* after two days on RNAi.