Supplementary Material

***Chaetomium globosum* from *Alisma orientale* (Sam.) Juzep. enhances the antioxidative stress capacity of *Caenorhabditis elegans***

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Supplementary Table 1 Effect of CGE on the viability of *C. elegans*

|  |  |  |
| --- | --- | --- |
| Concentration (μg/mL) | Survival tate(%) | P-value |
| Control | 98±1 | - |
| 10 | 98±1 | >0.05 |
| 40 | 98±1 | >0.05 |
| 70 | 98±1 | >0.05 |
| 100 | 99±1 | >0.05 |
| 150 | 98±2 | >0.05 |
| 200 | 98±1 | >0.05 |

Supplementary Table 2 Statistical analysis of survival time of *C. elegans*

| Stressors | Group | Mean time(1) | P-Value(2) | Average percentage increase(3) | Median time(4) | P-Value(2) |
| --- | --- | --- | --- | --- | --- | --- |
| Ultraviolet stress | Control | 4.70±0.06a | - | - | 4.13±0.10a | - |
| Res（5） | 5.34±0.04c | <0.001 | 13.62% | 4.75±0.05c | <0.001 |
| 20 μg/mL | 5.02±0.12b | <0.05 | 6.71% | 4.43±0.13b | <0.05 |
| 60 μg/mL | 5.20±0.09b | <0.01 | 10.65% | 4.62±0.10bc | <0.05 |
| 100 μg/mL | 5.39±0.18c | <0.001 | 14.78% | 4.79± 0.17c | <0.001 |
| oxidative stress | Control | 2.32±0.11a | - | - | 1.98±0.09a | - |
| Res（5） | 3.11±0.30b | <0.01 | 34.12% | 2.69±0.24b | <0.01 |
| 20 μg/mL | 2.78±0.03b | <0.05 | 19.72% | 2.38±0.02b | <0.05 |
| 60 μg/mL | 2.85±0.13b | <0.05 | 22.85% | 2.49±0.11b | <0.05 |
| 100 μg/mL | 3.11±0.30b | <0.01 | 33.84% | 2.73± 0.27b | <0.01 |

Note: All data were expressed as Mean±SD, and different letters in the column indicated statistically significant differences (P<0.05). (1) Mean survival time = 1/n∑jXjdj, where j is the age, dj is the number of nematodes dying at Xj, and n is the total number of nematodes. (2) The CGE treatment group was compared with the control group, and the P-value was calculated by log-rank test. (3) Percentage increase in life expectancy relative to the control group. (4) Median life is the time when the survival rate is equal to 50%. (5) 20 μg/mL resveratrol was a positive control.

Supplementary Table 3 Effect of CGE on malondialdehyde content and antioxidant enzyme activity in *C. elegans*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Control | Res | 20（μg/mL） | 60（μg/mL） | 100（μg/mL） |
| MDA  (nmol/mgprot) | non-oxidative stress | 0.385±0.027a | 0.267±0.014b | 0.298±0.058b | 0.252±0.016b | 0.234±0.12b |
| oxidative stress | 1.432±0.089c | 0.871±0.057a | 0.972±0.008a | 0.965±0.019a | 1.165±0.069b |
| SOD  (U/mgprot) | non-oxidative stress | 6.018±0.256a | 6.866±0.158b | 6.597±0.05b | 6.208±0.093a | 6.084±0.031a |
| oxidative stress | 7.022±0.564a | 8.337±0.546c | 7.985±0.419b | 7.124±0.027a | 7.071±0.000a |
| GSH-PX  (U/mgprot) | non-oxidative stress | 1.393±0.179a | 4.012±0.253b | 3.091±0146b | 3.245±0.364b | 2.915±0.960b |
| oxidative stress | 2.230±0.729a | 5.809±1.240b | 2.376±0.689a | 4.684±1.224b | 5.537±0.603b |
| CAT  (U/mgprot) | non-oxidative stress | 1.128±0.074a | 1.562±0.152a | 1.541±0.140a | 1.780±0.304b | 1.324±0.292a |
| oxidative stress | 1.381±0.465a | 2.828±0.880b | 2.113±0.236a | 2.637±0.139b | 1.854±0.215a |

Note: The absence of the same letter in the same column indicates a statistically significant difference (P < 0.05).