**Supplementary materials**

Table S1. Survival rate of ZFL challenged with different doses of RSL3 for 6 h

| Dose of RSL3 | OD$_{450nm}$ | | | | | | mean | Survival rate[a] |
|:---:|:---:|:---:|:---:|:---:|:---:|:---:|:---:|:---:|
| Blank | 0.175 | 0.164 | 0.179 | | | | 0.173 | |
| Ctrl (0 μM) | 0.649 | 0.635 | 0.654 | 0.652 | 0.69 | 0.663 | 0.657 | 100% |
| 1.0 μM | 0.47 | 0.512 | 0.458 | 0.447 | 0.454 | 0.492 | 0.472 | 61.78% |
| 2.5 μM | 0.442 | 0.439 | 0.425 | 0.472 | 0.429 | 0.413 | 0.437 | 54.55% |
| 5.0 μM | 0.385 | 0.379 | 0.394 | 0.397 | 0.364 | 0.392 | 0.385 | 43.80% |
| 7.5 μM | 0.353 | 0.357 | 0.374 | 0.349 | 0.342 | 0.331 | 0.351 | 36.78% |
| 10.0 μM | 0.346 | 0.332 | 0.343 | 0.345 | 0.352 | 0.329 | 0.341 | 34.71% |

[a] Survival rate was calculated as: $[(OD_{treatment\ group}-OD_{blank})/(OD_{Ctrl}-OD_{blank})]\times100\%$

**Confidence Limits**

| | Probability | 95% Confidence Limits for Dose_RSL3 | | | 95% Confidence Limits for log(Dose_RSL3)[a] | | |
|---|---|---|---|---|---|---|---|
| | | Estimate | Lower Bound | Upper Bound | Estimate | Lower Bound | Upper Bound |
| LOGIT | .010 | .000 | .000 | .006 | −3.458 | −6.539 | −2.230 |
| | .020 | .001 | .000 | .016 | −2.857 | −5.484 | −1.809 |
| | .030 | .003 | .000 | .028 | −2.502 | −4.860 | −1.561 |
| | .040 | .006 | .000 | .041 | −2.248 | −4.413 | −1.382 |
| | .050 | .009 | .000 | .057 | −2.048 | −4.063 | −1.242 |
| | .060 | .013 | .000 | .075 | −1.883 | −3.774 | −1.126 |
| | .070 | .018 | .000 | .094 | −1.743 | −3.527 | −1.027 |
| | .080 | .024 | .000 | .115 | −1.619 | −3.311 | −.940 |
| | .090 | .031 | .001 | .137 | −1.510 | −3.118 | −.863 |
| | .100 | .039 | .001 | .161 | −1.410 | −2.944 | −.793 |
| | .150 | .097 | .006 | .306 | −1.015 | −2.252 | −.514 |
| | .200 | .192 | .019 | .498 | −.718 | −1.733 | −.302 |
| | .250 | .337 | .050 | .748 | −.472 | −1.305 | −.126 |
| | .300 | .553 | .117 | 1.070 | −.258 | −.934 | .030 |
| | .350 | .866 | .252 | 1.493 | −.063 | −.599 | .174 |
| | .400 | 1.317 | .512 | 2.062 | .120 | −.291 | .314 |
| | .450 | 1.971 | .988 | 2.874 | .295 | −.005 | .458 |
| | .500 | 2.924 | 1.796 | 4.167 | .466 | .254 | .620 |
| | .550 | 4.338 | 2.992 | 6.598 | .637 | .476 | .819 |
| | .600 | 6.488 | 4.532 | 11.719 | .812 | .656 | 1.069 |
| | .650 | 9.874 | 6.511 | 22.892 | .994 | .814 | 1.360 |
| | .700 | 15.466 | 9.258 | 48.517 | 1.189 | .967 | 1.686 |
| | .750 | 25.349 | 13.390 | 112.991 | 1.404 | 1.127 | 2.053 |
| | .800 | 44.627 | 20.207 | 300.654 | 1.650 | 1.305 | 2.478 |
| | .850 | 88.511 | 33.006 | 990.711 | 1.947 | 1.519 | 2.996 |
| | .900 | 219.789 | 62.936 | 4858.771 | 2.342 | 1.799 | 3.687 |
| | .910 | 276.313 | 73.985 | 7254.136 | 2.441 | 1.869 | 3.861 |
| | .920 | 355.877 | 88.454 | 11301.428 | 2.551 | 1.947 | 4.053 |
| | .930 | 472.656 | 108.048 | 18585.008 | 2.675 | 2.034 | 4.269 |
| | .940 | 653.578 | 135.752 | 32808.520 | 2.815 | 2.133 | 4.516 |
| | .950 | 955.006 | 177.268 | 63817.756 | 2.980 | 2.249 | 4.805 |
| | .960 | 1511.735 | 244.810 | 142895.622 | 3.179 | 2.389 | 5.155 |
| | .970 | 2716.176 | 369.420 | 399780.330 | 3.434 | 2.568 | 5.602 |
| | .980 | 6150.597 | 655.417 | 1679888.84 | 3.789 | 2.817 | 6.225 |
| | .990 | 24514.434 | 1727.085 | 19075142.9 | 4.389 | 3.237 | 7.280 |

a. Logarithm base = 10.

Figure S1. Prediction of the lethal concentration 50% (LC50) of ZFL challenged with RSL3 for 6 h. (Software: IBM SPSS Statistics, version 25.0)

Table S2. Nucleotide sequences of qPCR primers used in this study

| Primer name | Sequence (5' to 3') | NCBI accession numbers |
| --- | --- | --- |
| *β-actin* Forward | CACCACCACAGCCGAAAGAG | EF026002.1 |
| *β-actin* Reverce | ACCGCAAGATTCCATACCCA | |
| *gpx4a* Forward | TGCGACACCACAACTGACTGAAC | NM_001346537.1 |
| *gpx4a* Reverce | ACCAATGATCCCACTGCTCGATAAAG | |
| *gpx4b* Forward | CGCTGAGAAGGGTTTACGCATCC | NM_001030070.2 |
| *gpx4b* Reverce | CTCCTTAATCTCCGCTTCACTTCCAG | |
| *hamp1* Forward | TGTTTCTGGCTGCTGTCGTCATC | NM_205583.2 |
| *hamp1* Reverce | GATGCTCATCCTGTACCTGCTGTATG | |
| *hamp2* Forward | CAGATCACAGCCGTTCCCTTCATAC | NM_001289794.1 |
| *hamp2* Reverce | TTCAGCTTCAGTCAGATGTTGGTTCTC | |
| *nrf2* Forward | TCGGGTTTGTCCCTAGATG | NM_182889.1 |
| *nrf2* Reverce | AGGTTTGGAGTGTCCGCTA | |
| *keap1* Forward | CCAACGGCATAGAGGTAGTTAT | NM_182864.2 |
| *keap1* Reverce | CCTGTATGTGGTAGGAGGGTT | |
| *il-6* Forward | TCAACTTCTCCAGCGTGATG | NM_001261449.1 |
| *il-6* Reverce | TCTTTCCCTCTTTTCCTCCTG | |
| *il1-b* Forward | TGGCGAACGTCATCCAAG | NM_212844.2 |
| *il1-b* Reverce | GGAGCACTGGGCGACGCATA | |
| *nfκb* Forward | GGCAGGTGGCGATAGTGTT | NM_001001839.2 |
| *nfκb* Reverce | CATTCCTTCAGTTCTCTTGCG | |
| *ptgs2* Forward | TGGATCTTTCCTGGGTGAAGG | NM_153657 |
| *ptgs2* Reverce | GAAGCTCAGGGGTAGTGCAG | |
| *ho-1* Forward | ATGCCCTTGTTTCCAGTCAGC | NM_205671.1 |
| *ho-1* Reverce | GGACTTGGAGCACTTCTTCGG | |
| *fth1* Forward | CAGGACGTGAAGAAACCAGAGAAGG | NM_131585.1 |
| *fth1* Reverce | ATGTGAGGGTCGTTGTGTTGAGATG | |