

Supplementary Information

Effects of Chronic Roundup Exposure on Medaka Larvae

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Table S1. The sequences of the primers used in the present study. Primers were designed using the <https://useast.ensembl.org/index.html> and Primer3 software [36].

Primer Name	Sequence	
	Forward	Reverse
<i>ef1a</i>	AGAAGGAAGCCGCTGAGATGG	GCTCAGCCTTCAGTTTGTCCAA
<i>thr</i>	AGGTGGATCTGGAAGCCTTC	TCACAAGGCAGCTCAGAGAA
<i>thr</i>	TGAGGGTTGCAAGGGATTCT	CGCACTTCCCCTCGTACTTA
<i>tsh</i>	CTCAAGGGACAGCAACATGAG	TTGGACTCAAGGGGACAGC
<i>thr a</i>	CATGTTTTTCAGGGCTGCCTT	CTCGCTTTCTGGATCGTAGC
<i>ache</i>	CTAGCAGGGGTCAAGATGGG	TGTTCTCGTCCATCCAGTCC
<i>mahce</i>	AAGAAAATGGTCATGAAGCCCA	GTCTTAGGGGCCAGCAGATC
<i>dnmt1</i>	CTTCTGCCGCTGGAAAGAC	CCTCCTATCGGCGACCTG
<i>bax</i>	CTCAGAGGGTACGTGATTGAA	CAGCTGCTCCACCACTTCTT
<i>caspase3</i>	TCAGCCAAATCCCAGGTCTA	AGGGTCGGCGTCTTGTTTTA
<i>catalase</i>	GCGGTACAACAGCGCAGATGAAG	GGATGGACGGCCTTCAAGTTC
<i>gst</i>	CACGGCCATCCTGAAATACCT	GTCAGCCGGAACCAATGAT
<i>sod1</i>	GGCACTCTGTATGCCGGCTGC	GTTACCAAAGTCTCCCGGATG

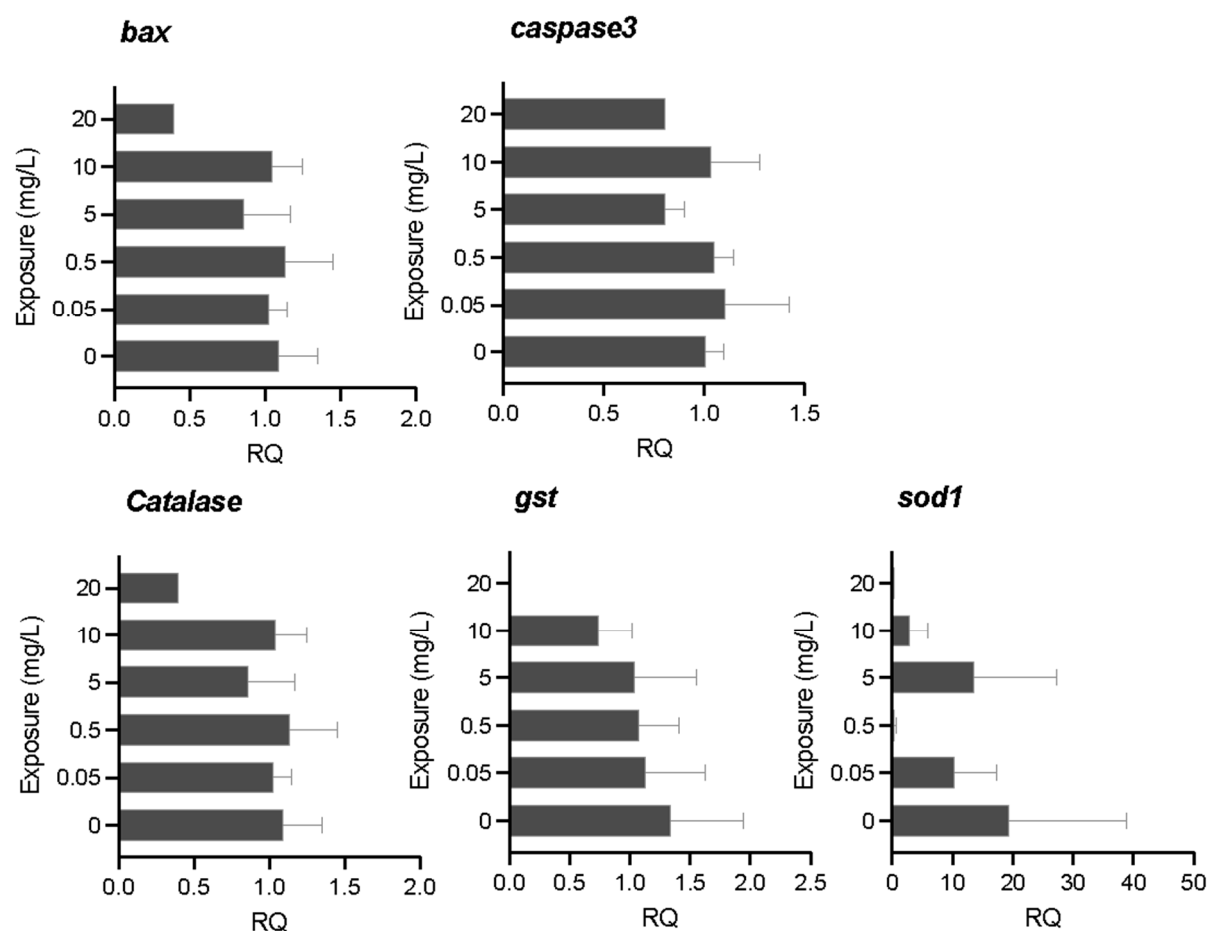


Figure S1. Expression of genes encoding *bax1*, *caspase3*, *catalase*, *gst*, and *sod1* in the whole larvae of medaka exposure to various concentrations of glyphosate in commercially available Roundup formulation. The mRNA levels were determined by real-time quantitative PCR using the primers shown in Table S1. No statistical significance was observed, although effects tended to be profound in larvae exposed to 20 mg/L of glyphosate.