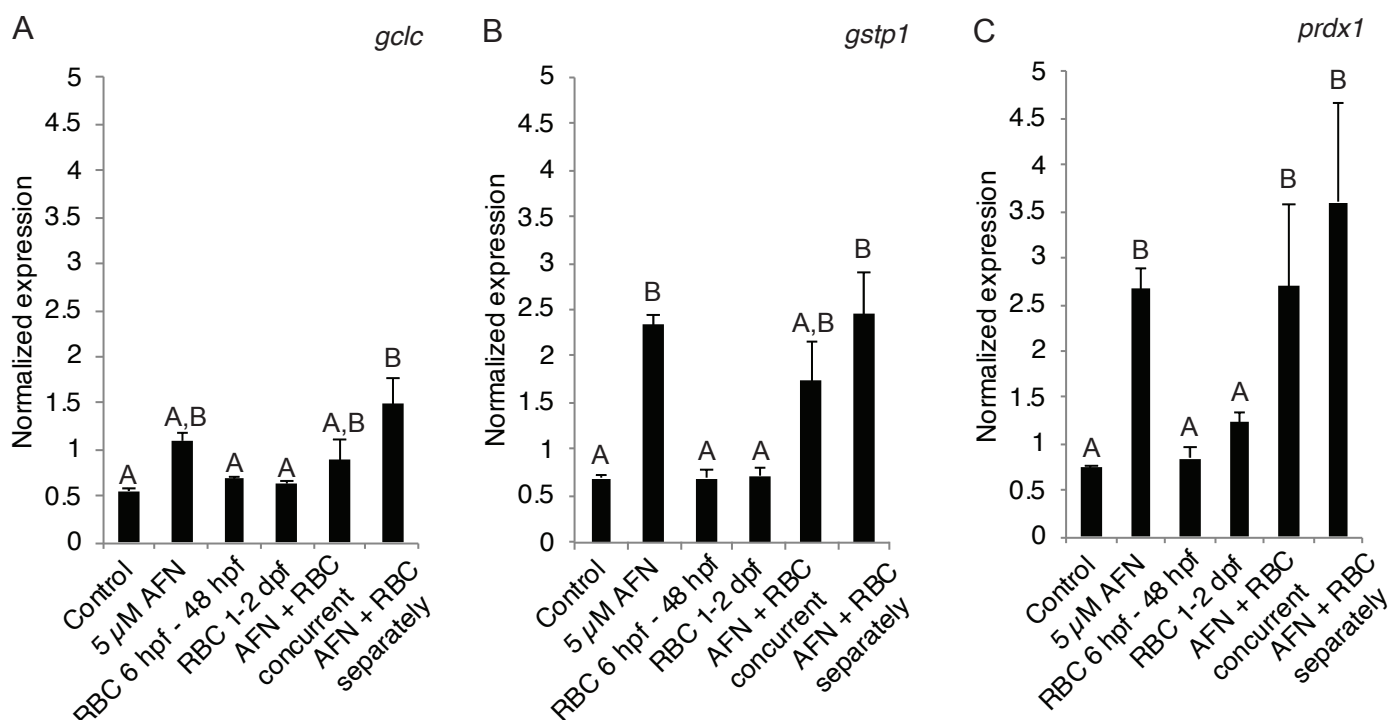


Supplementary Figure S1. Percentage of larvae with normal cranial cartilage and cranial cartilage defects in zebrafish larvae treated with increasing doses of RBC. 500 μ M RBC was the highest dose before RBC became toxic. Data labels show the number of larvae observed in each treatment group. Riboceine, RBC.



Supplementary Figure S2. Normalized expression levels of *gclc*, *gstp1* and *prdx1*.

Normalized expression in 48 hpf embryos for *gclc* (A), *gstp1* (B) and *prdx1* (C) in treatments groups; untreated controls, 5 μ M AFN, RBC (500 μ M) exposure 6 hpf - 48 hpf, RBC (500 μ M) exposure 1 - 2 dpf, 5 μ M AFN and concurrent RBC (500 μ M) exposure (6 hpf - 48 hpf), 5 μ M AFN and separate RBC (500 μ M) exposure 1-2 dpf. Error bars are standard error of the mean from three biological replicates (total n = 50 embryos). Bars not sharing a letter are statistically significantly different ($p < 0.05$, one-way ANOVA, Tukey HSD post-hoc analysis). Auranofin, AFN. Ribocaine, RBC. hours post fertilization, hpf. days post fertilization, dpf.