

Supplementary information, Figure S1

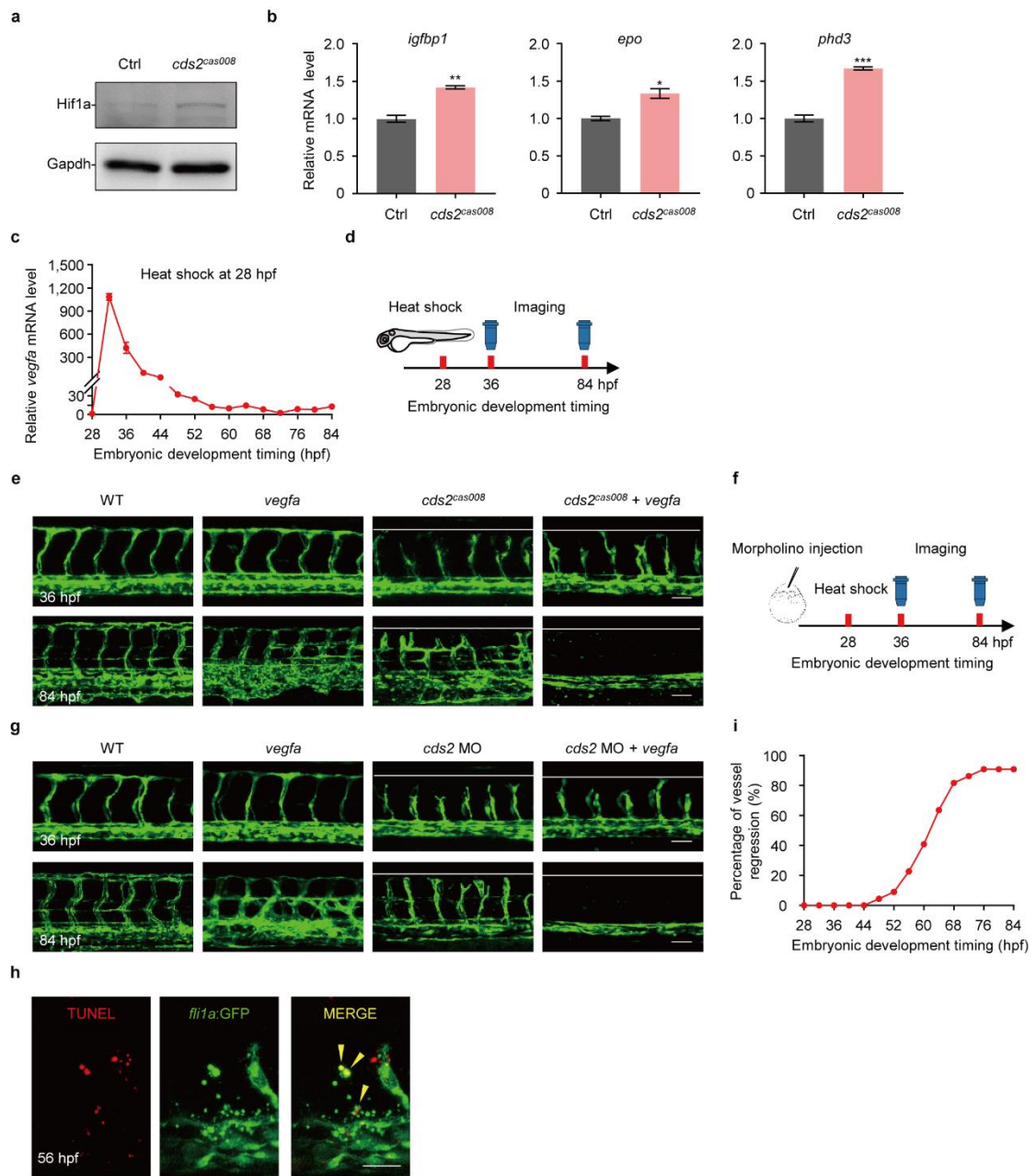


Fig. S1. VEGFA induces vessel regression in zebrafish *cds2* mutants. (a, b) Western blotting analysis of Hif1a protein level **(a)** and relative expression of Hif target genes **(b)** in WT and *cds2* mutant embryos (severe phenotype) at 36 hpf. $n = 3$ samples, 3-5 embryos pooled for each sample **(b)**. **(c)** Relative *vegfa* expression at different time points after heatshock at 28 hpf. *vegfa* level was normalized to wild type embryos in the same experimental conditions. $n = 3$ samples per point, 10 embryos pooled for each sample. **(d)** Model of timing for heatshock induction and confocal imaging analysis in (Fig. S1e). **(e)** Confocal images of trunk vessels in WT and *cds2* mutant under *Tg(fli1a:eGFP)* background, with or without *vegfa* overexpression (OE) at 36 hpf and 84 hpf. *vegfa* OE was induced by heat shock at 28 hpf in *Tg(hsp:vegfaa)* background. **(f)** Model of timing for morpholino injection (MI), heatshock induction and confocal imaging analysis in (Fig. S1g). **(g)** Confocal images of trunk vessels in WT and *cds2* MO-injected embryos with or w/o *vegfa* OE under *Tg(fli1a:eGFP)* background. **(h)** Representative confocal images of TUNEL staining in 56 hpf *cds2* mutants with *vegfa* OE during vessel regression. **(i)** Time-lapse phenotype analysis of vessel regression in *cds2* morphants with *vegfa* OE. $n = 300$ ISVs counted from 30 embryos per group. Scale bars, 50 μm (**c** and **e**; 36 hpf), 70 μm (**c** and **e**; 84 hpf) and 25 μm (**h**). Error bars, mean \pm SEM. * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.