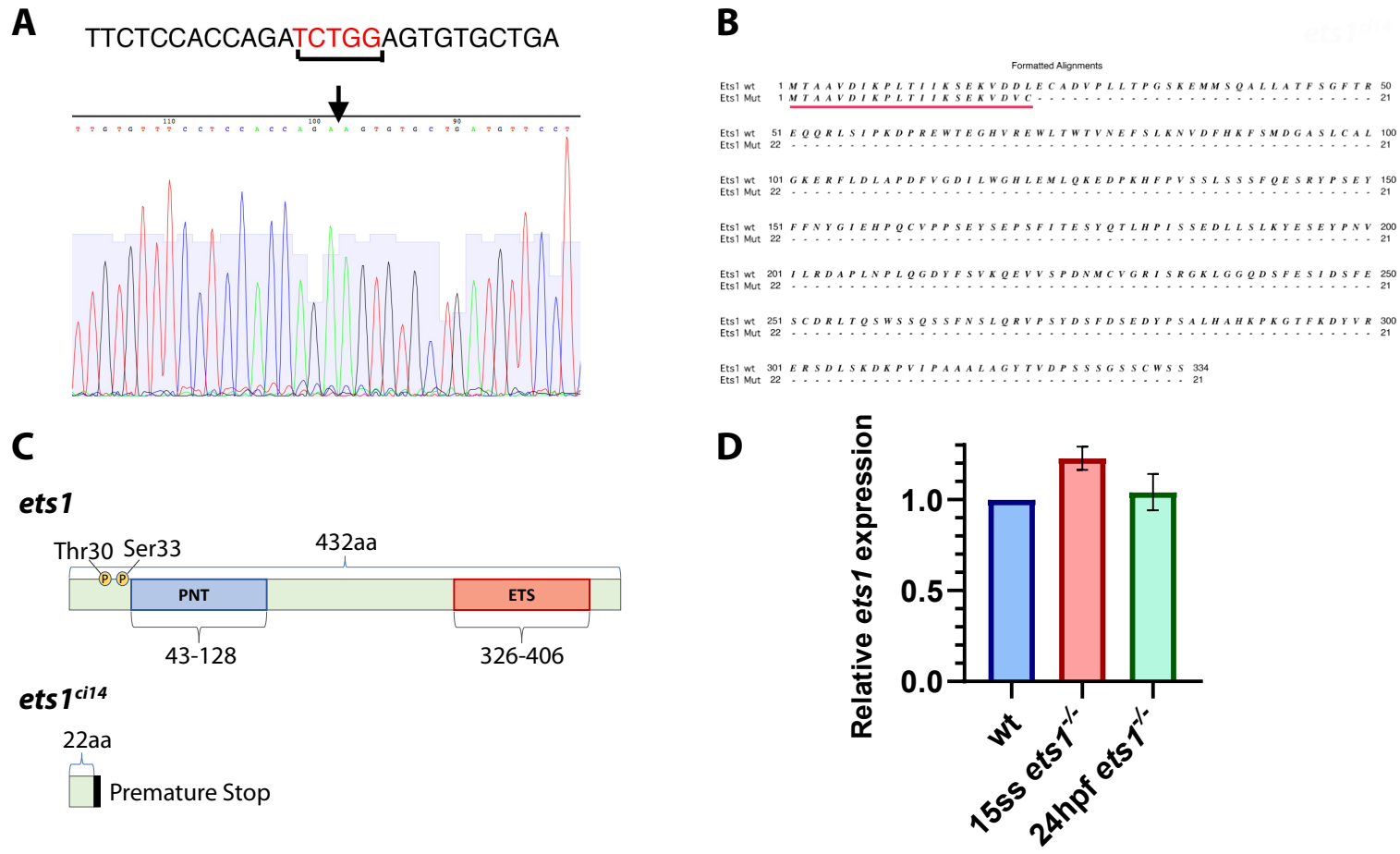
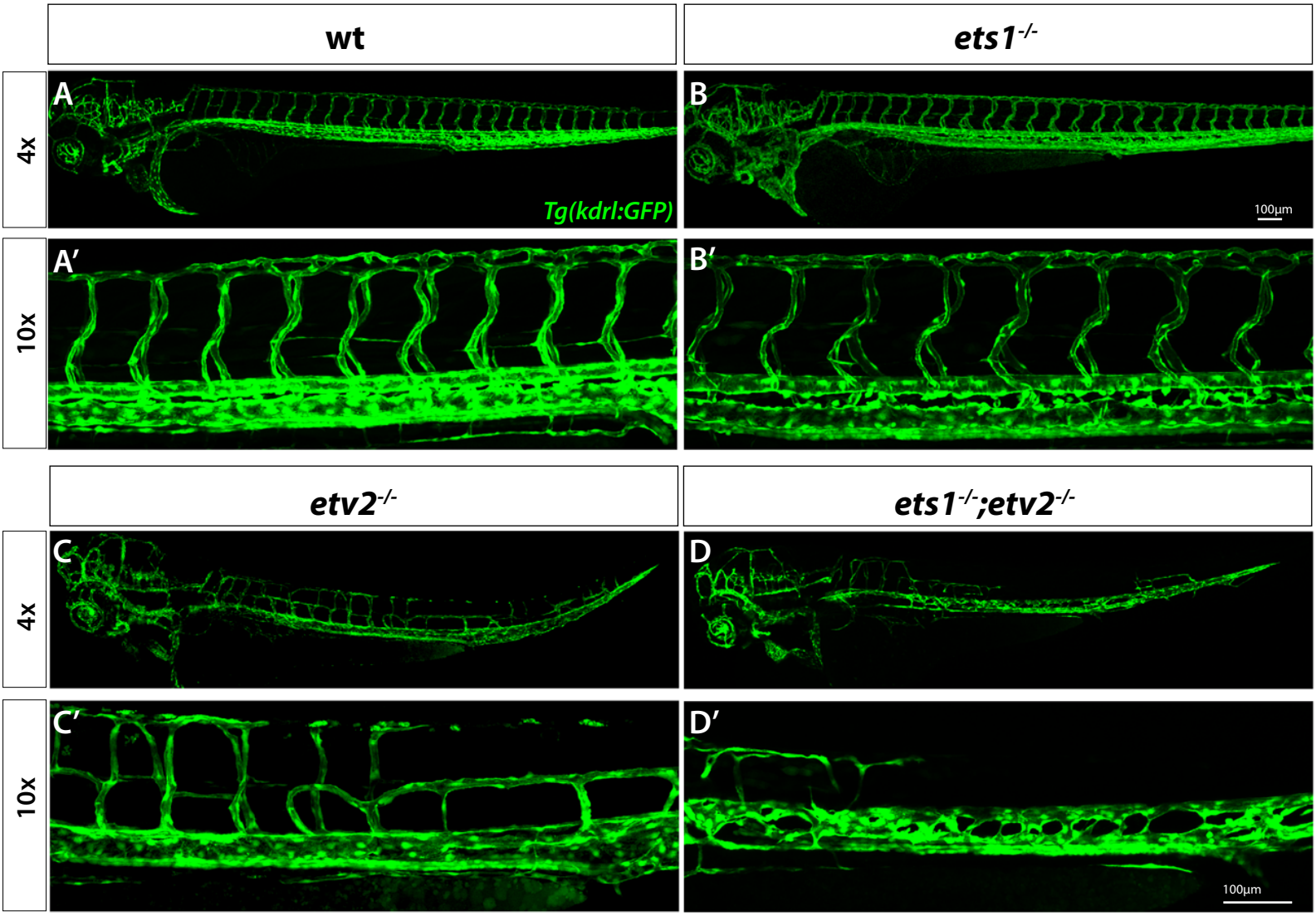
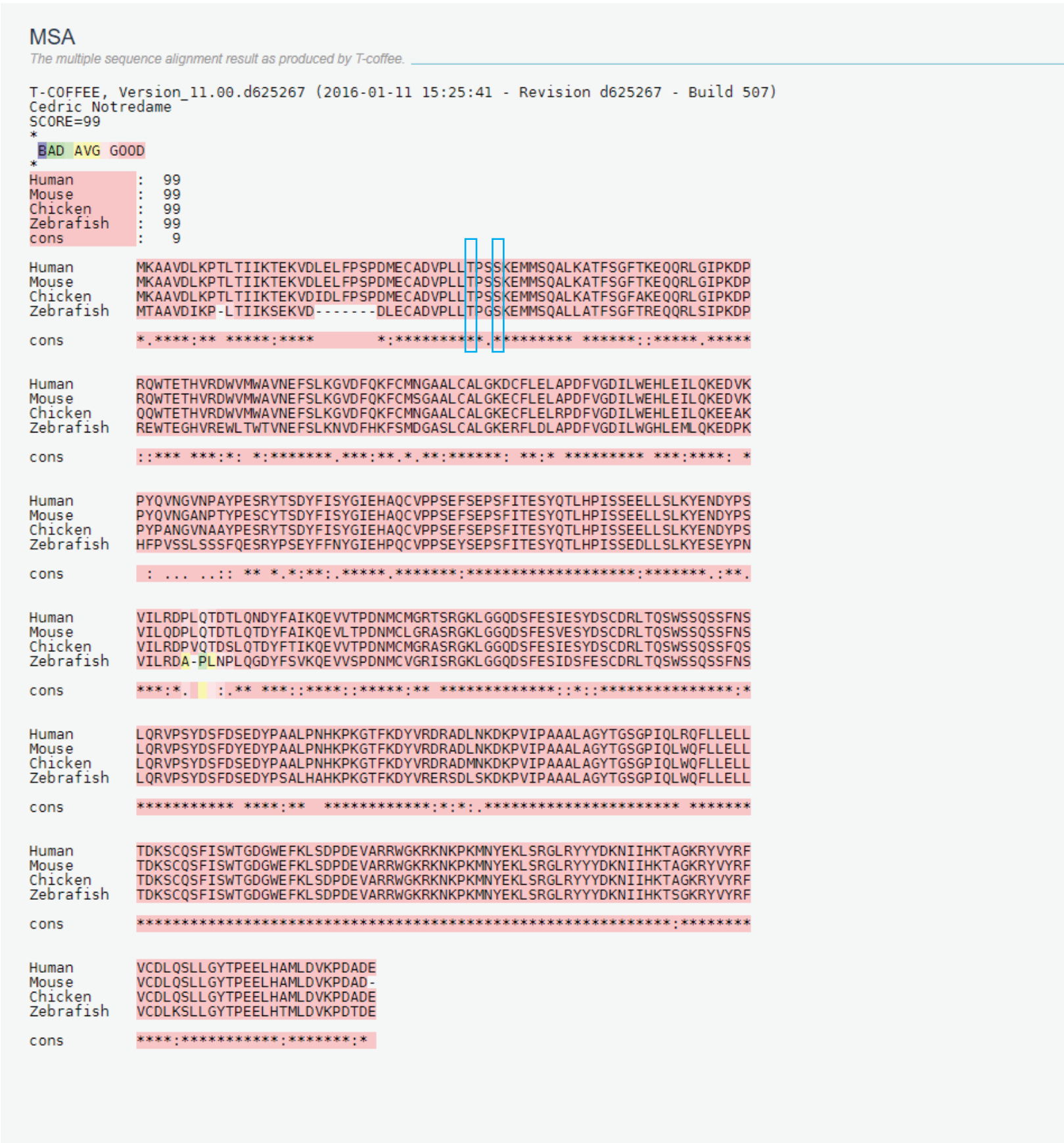



**Supplemental Figure S1. Generation of *ets1*$^{ci14}$ mutants and analysis of *ets1* expression.** (A) DNA sequencing chromatogram shows the 5 bp TCTGG deletion in *ets1*$^{ci14}$ mutants. (B) Alignment between predicted mutant and wild-type Ets1 protein sequences. Note the severely truncated Ets1 mutant protein (underlined in red). (C) Schematic of wild-type Ets1 protein domain structure and predicted phosphorylation sites. Note the Pointed (PNT) and DNA binding ETS domains. The truncated protein in the *ets1*$^{ci14}$ mutant lacks both the PNT and ETS domains. (D) qPCR analysis of *ets1* expression in *ets1*$^{ci14}$ mutants at 15-somite stage (15 ss) and 24 hpf. Note the persistent expression of *ets1* in the mutants. (E,F) In situ hybridization for *ets1* in wildtype and *ets1*$^{ci14}$ embryos at 24 hpf. Note the presence of the *ets1* transcript in *ets1*$^{ci14}$ embryos.




**Supplemental Figure S2. *ets1*$^{-/-}$; *etv2*$^{-/-}$ embryos display severe vascular defects compared to *etv2*$^{-/-}$ embryos.** (A-D′) Confocal micrographs of 80 hpf *Tg(kdrl:GFP)* wild-type, *ets1*$^{-/-}$, *etv2*$^{-/-}$ and *ets1*$^{-/-}$; *etv2*$^{-/-}$ embryos. Note the severe vascular defects in *ets1*$^{-/-}$; *etv2*$^{-/-}$ embryos compared to the *etv2*$^{-/-}$ embryos




**Supplemental Figure S3. Ets1 protein sequence is highly conserved across multiple vertebrate species.** Alignment output of human, mouse, chicken and zebrafish Ets1 protein sequences using the T-COFFEE structural alignment tool (http://tcoffee.crg.cat/apps/tcoffee/do:expresso). The light blue boxes indicate the conserved Threonine and Serine phosphorylation sites present in all four species.