

Supplementary information

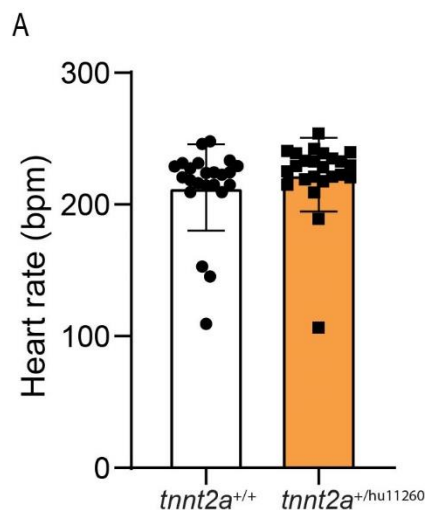
A. Sequencing primers

Primer name	Sequence	Size (bp)
Tnnt2a_ZF_Fw	CCGTTTGCTTTGTGGGTTTTGTCA	301
Tnnt2a_ZF_Rv	TGTTTTCGCGAATTTACCCCACTG	301

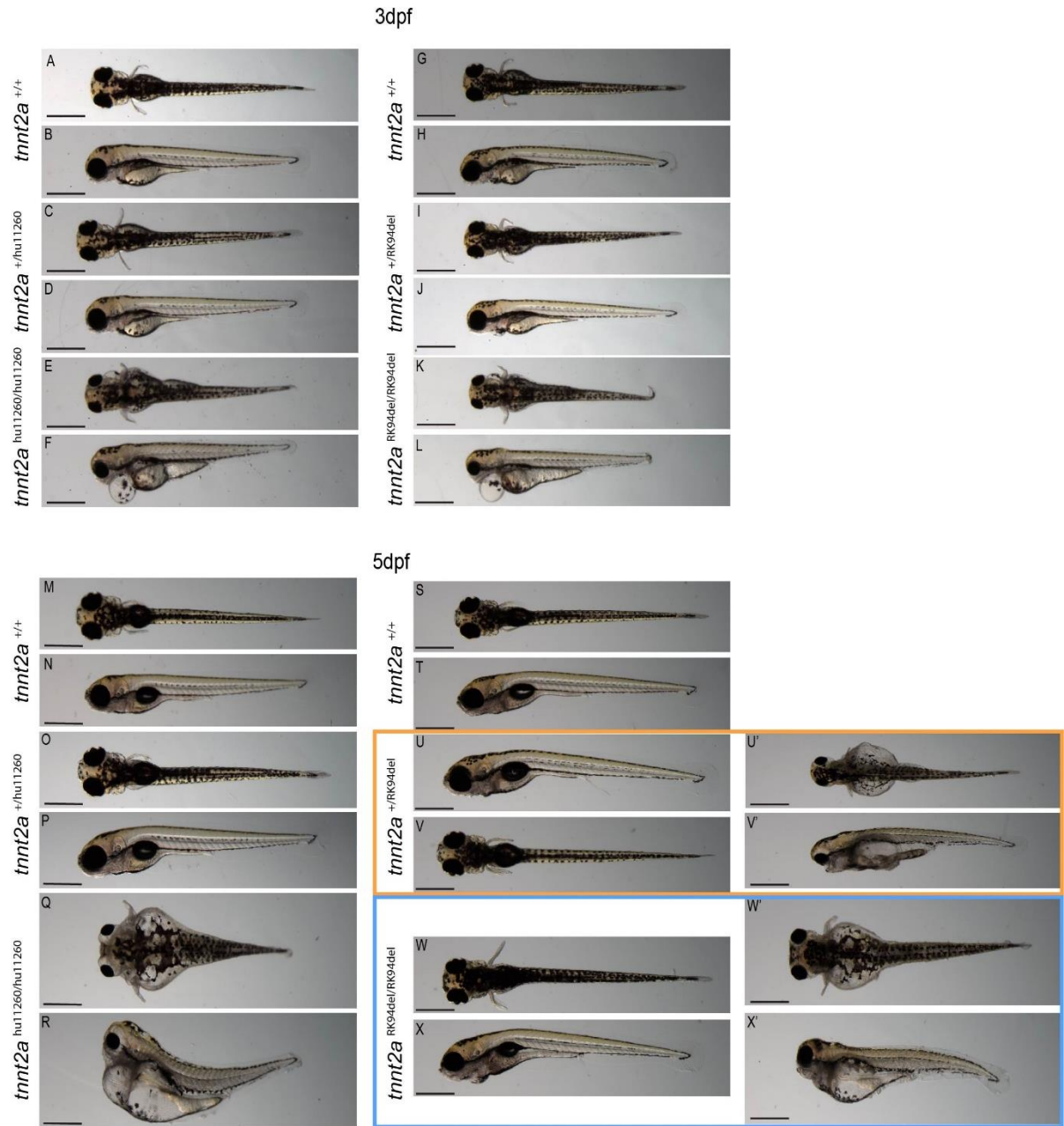
B. sgRNA

Oligo name	Sequence
Tnnt2a_ZF_Oligo 1	TAGGTCCTTCTCCATGCGCTTA

Supplementary Figure 1: Sequences for primers and oligonucleotides used in this study. (A) Sequences of PCR primers used for sequencing. **(B)** Sequence of sgRNAs used for targeting of the Cas9 nuclease to the specific site(s) of mutation(s).



Supplementary Figure 2. Heart rate from a brightfield high-speed video imaging of *tnnt2a*^{+/hu11260} at 5 dpf. (A) Bar graph of heart rate for *tnnt2a*^{+/+} and *tnnt2a*^{+/hu11260}. Statistics: mean ± SEM, n.s. $p > 0.05$, *tnnt2a*^{+/+} $n = 23$, *tnnt2a*^{+/hu11260} $n = 24$, unpaired Students t-test.



Supplementary Figure 3: Representative embryonic pictures of the different genotypes at 3 dpf and 5 dpf embryos. (A-F) Images of *tnnt2a*^{+/+}, *tnnt2a*^{+/hu11260}, *tnnt2a*^{hu11260/hu11260} at 3 dpf. **(G-L)** Images of *tnnt2a*^{+/+}, *tnnt2a*^{+/RK94del}, *tnnt2a*^{RK94del/RK94del} at 3 dpf. **(M-R)** Images of *tnnt2a*^{+/+}, *tnnt2a*^{+/hu11260}, *tnnt2a*^{hu11260/hu11260} at 5 dpf. **(S-X)** Images of *tnnt2a*^{+/+}, *tnnt2a*^{+/RK94del}, *tnnt2a*^{RK94del/RK94del} at 5 dpf. **(U',V',W',X')** Representative images of the phenotype variations of *tnnt2a*^{+/RK94del} and *tnnt2a*^{RK94del/RK94del} at 5 dpf. Scale bar: 100 μ m.