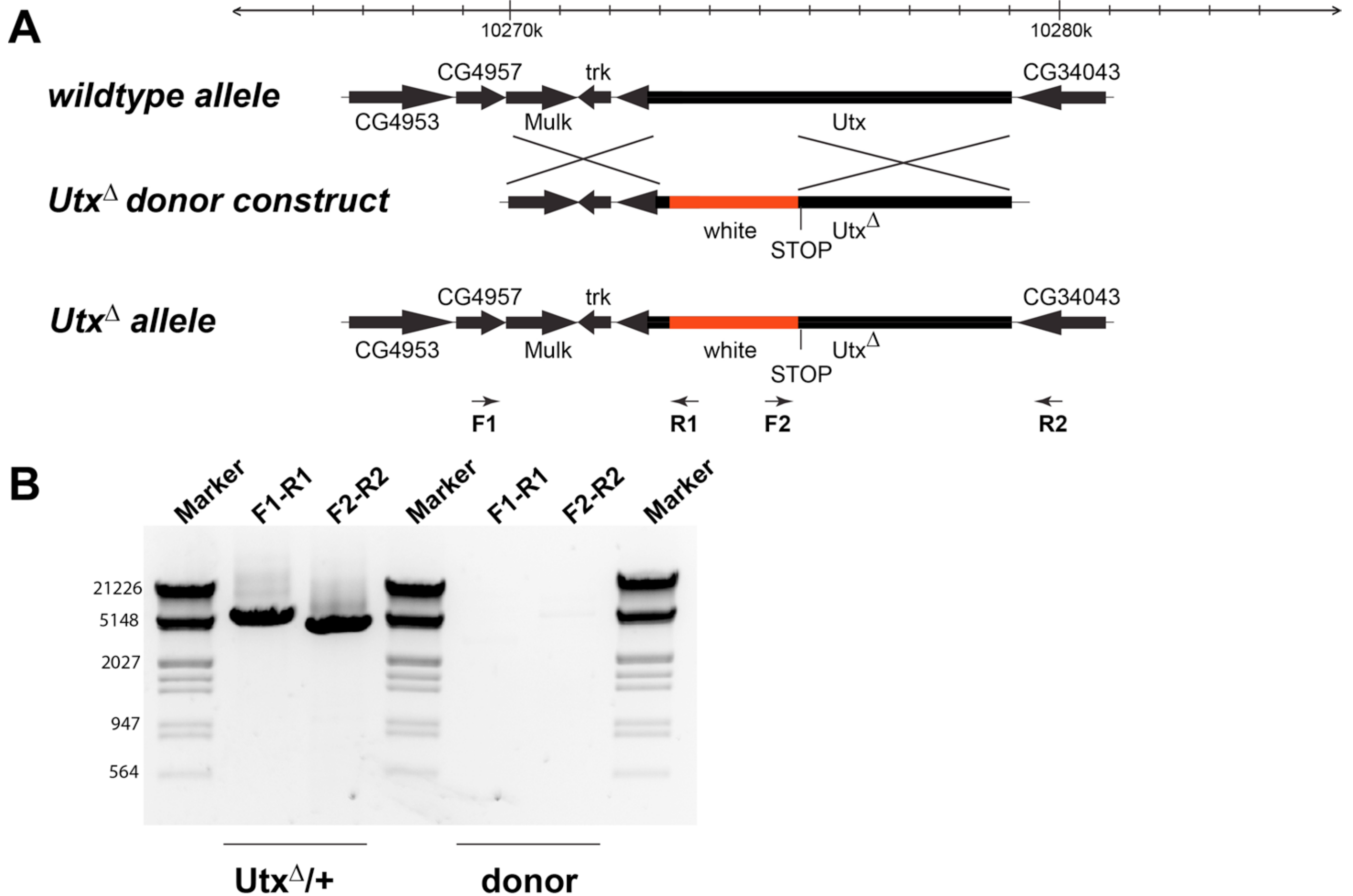

Fig. S1. Molecular analysis of the *Utx*$^{\Delta}$ allele generated by homologous recombination. (**A**) The genomic region containing the *Utx* gene in wild-type animals (*Utx*$^{+}$ allele); the targeting construct containing the indicated genomic region in which part of the *Utx* coding region was replaced by the *white* (w^{+}) marker gene (donor fragment); and the deletion allele in which part of the *Utx* coding region is replaced by w^{+} (*Utx*$^{\Delta}$ allele). In *Utx*$^{\Delta}$, the AGC codon for Ser503 was converted to a TAA termination codon. The positions of primers F1 (5′-CCAAGCCCAGCAACCGATTC-3′), R1 (5′-TCGCTGCATGAATTAGCTTGG-3′), F2 (5′-TGCCGTTTACTGTGCGAC-3′) and R2 (5′-TATCGTTTCGCTCGGAAAGC-3′) used for diagnostic PCR are shown. (**B**) PCR reactions were performed with the indicated primer pairs on genomic DNA isolated from *Utx*$^{\Delta}$/+ heterozygotes or from transgenic animals carrying the donor construct (donor) and analysed by electrophoresis on agarose gels. The 5 kb F1-R1 and F2-R2 fragments are diagnostic for the *Utx*$^{\Delta}$ allele.