

Table S1. Sequences of the oligonucleotides for mutation detection and vector construction in this study.

Use	Name	Sequence
Indel mutation detection	White-F	TATCATTGCAGGGTGACAGCG
	White-R	GGCATTGAGCAGGGTCGTC
Cas9 nickase mutagenesis	Cas9-D10A-F	CTCCATTGGGCTCGCTATCGGCACAAACA
	Cas9-D10A-R	TGTTTGTGCCGATAGCGAGCCCAATGGAG
	Cas9-H840A-F	TACGACGTGGATGCTATCGTGCCCCAG
	Cas9-H840A-R	CTGGGGCACGATAGCATCCACGTCGTA
<i>piwi</i> -4XP3-mCherry donor template homologous arms	<i>piwi</i> -L-F	GGCCTAGGTGCGGTATTTAAGGCTCTTGC
	<i>piwi</i> -L-R	CTAGCTAGCGGCATGCAGATTCCAAGAC
	<i>piwi</i> -R-F	CGGGATCCGGATTGAGTTCAGTGATAATATCG
	<i>piwi</i> -R-R	GGACTAGTCGCAACTGAGCAATACTTTCCAC
<i>piwi</i> -4XP3-mCherry donor template mCherry marker	mCherry-F	CCGCTCGAGATGGTGAGCAAGGGCGAGGA
	mCherry-R	CGGGGTACCTTACTTGTACAGCTCGTCCATGCC
	SV40-F	CGGGGTACCGATCTTTGTGAAGGAACC
	SV40-R	CGGGATATCACTAGACTGGAACCAGACATG
<i>piwi</i> ^{HDR-mCherry} confirmation	primer 1	TTACTTGCATAGCAGGGTGGCTG
	primer 2	CTCCGGCGCTCGTCTAGTGTCG
	primer 3	CACACCTCCCCCTGAACCTG
	primer 4	GCCTCCACCAGTTCAGACG