

Table S1 List of oligonucleotide primers used in this study

***klp-12* GFP transgene donor vector cloning and recombinant screening primers**

klp-12 F	CGACGTTGTA AACGACGGCCAGTGAATTCGATTCACACA ACTTGCGAAAATTCTTG
klp-12 PAM mut HIII R	GTAAATGAACGATCAGGACCAATTGTAAGCTTGTGGATCA
klp-12 PAM Peft-3 F	CAATTGGTCCTGATCGTTCATTTACGCACCTTTGGTCTTTTATTGTCAACT
Peft-3 GFP R (P2)	GTGAAAAGTTCTTCTCCTTTACTCATTAAGCCTGCTTTTTGTACAACTTGTGAG
GFP F	ATGAGTAAAGGAGAAGA ACTTTTTAC
intron R	GTACCGAACTGTTTAAACTTACGTG
intron GFP F	CACGTAAGTTTAAACAGTTCGGTACTA ACTAACCATACATATTTAAATTTTCAGGTGCTG
GFP tbb-2 UTR R	GGGAATGCTTGAAAGGATTTTGCATTTATCCTATTTGTATAGTTCATCCATGCCATG
tbb-2 UTR F (P3)	GATAAATGCAAATCCTTTCAAGCATTCC
tbb-2 UTR klp-12 R	GAGTAGGCATATCAAATACATGATCTGAGACTTTTTTCTTGGCGGCACA
klp-12 ds F	GATCATGTATTTGATATGCCTACTC
klp-12 R	AACAGCTATGACCATGATTACGCCAAGCTTGAAGACGTGTCAATTTCGAATCAC
klp-12 us outside HR F (P1)	GAGCGAAAAGTGTCGGTTATTTACG
klp-12 ds outside HR R (P4)	CATCAGTGTTCCGGCTGAAATGTGATAG

Cloning *lab-1* upstream region

lab-1-974UPSF-bglII	TTCTGAAGATCTGGAATGGACTGTCATTAGAC
lab1-2-UPSR-bglII	TGGCTCAGATCTGTTGAATAAAGTCGAGGATC

Cloning *lab-1* downstream region

lab-1-24F-sacII	TAATCGCCGCGGTCAA ACTCAAAAACGCTGTG
lab-1-840DWSR-SacII	CGCCGACCGCGGCAAGCTACTTGGTGACAATG

Creating *lab-1* sgRNA

lab-1 mgRNA-F-Cor	GATCTGGGTGCCCGATGAGTGT TTTAGAGCTAGAGCTAGAAATAGC
lab-1 mgRNA-R	ACTCATCGGGCACCCAGATCAAACATTTAGATTTGCAATTCA

Detecting *lab-1* knock-out and *gfp* knock-in

CC01F	CTGCAGCGCAAATAATTCA
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bafP-R TTTGGCATCTGCCTCTCCTC
Amplifying and sequencing *lab-1* locus outside the donor vector homology region
lab1+1100-R GCATTGGTTAATCACTGGAA
CC01F CTGCAGCGCAAATAATTCA
gfp-N-R GTGCCATTAACATCACCAT

RT-qPCR

gpd-1F ACTCGTCCATTTTCGATGCT
gpd-1R TCGACAACACGGTTCGAGTA
lab-Ex34-RT-F CCAACCTCAGGAATCTGTGTCTT
lab-405-RT-R CCTCGGATGTATCGGAATCC
asfl-ex34-RT-R TCATCATCGTCCTCTTCCTCC
asfl-532-RT-F CCATCATCATGCAATGGCAT
T05F-Ex34-R TCCCAAGTTGCAATTTCAATAATC
T05F-454-F GCTCATGATGAAATTCGCTACAA