S2 Supporting Table. Sequences of oligonucleotide primers used in this study

Primer's name	Primer sequence (5'-3')	Application
KD1 **KR1**	CGAGCTCGTCGACGAAGTCATCACAAGTGATCAC CGAGCTCGTCGACGATCATTGGTCCAGAATGAAC	Primers for amplification of the *KlSEC59* gene
SD1 **SR1**	CTCAGCCTTTCATAGCTCCCACTC GCGATTCTTCCAACTCTAAGAGC	Primers for amplification of the *ScSEC59* gene
KD2 **KR2**	GCACCTGCTTGGCATATTAAGTTTGATTGC GCACCTGCGGAATAATATTGATAGATAGTCAAACCTG	Primers for construction of *KlSEC59* expression cassette
SD2 **SR2**	GCACCTGCCGACCATATAGGCAATGAACAGAATAAC GCACCTGCTCTTTAATCAAAGTCAATTATTTTCAAC	Primers for construction of *ScSEC59* expression cassette
KD3 **KR3**	GCACCTGCTTAATATGCCAACTTCCACGTTAGC GCACCTGCCAATATTATTCCTTCATAGATTCCAACAATATC	Primers for amplification of the *KlSEC59* gene CDS for cloning into pJET-ScS59k
SD3 **SR3**	GCACCTGCCTAATATGGTCGCTATAATACCTC GCACCTGCCAATATTAAAGAGTAATTAATTTTTCACAAATC	Primers for amplification of the *ScSEC59* gene CDS for cloning into pJET-KlS59k
KD4 **KR4**	GCACCTGCTTAATATGCCAACTTCCACGTTAGC GCACCTGCCAATATTATGGGACATTGTTAATGATGAG	Primers for amplification of DK N domain encoding *KlSEC59* gene fragment for cloning into pJET-KlS59k
KD5 **KR5**	GCACCTGCTTAATATGTCTCCGTTCACATGGCTTATAG GCACCTGCCAATATTATTCCTTCATAGATTCCAACAATATC	Primers for amplification of DK C domain encoding *KlSEC59* gene fragment for cloning into pJET-KlS59k
KD6 **KR6** **CD1** **CR1**	GCTCTAGAATGCCAACTTCCACGTTAGC CACACCTGCTAAACTCTGATCATAGAGGAACCG CGTCACCTGCGAATAGAGTTTATATGGTTGC GCTCTAGATTACAAGATCAAATAAG	Primers for construction of hybrid KlN-CeC protein encoding DNA fragment
KD3 **CR3**	GCACCTGCTTAATATGCCAACTTCCACGTTAGC CAGCACCTGCTAGAATTACAAGATCAAATAAGTAACCAATG	Primers for amplification of the hybrid KlN-CeC protein encoding CDS for cloning into pJET-KlS59k
CD2 **CR2** **KD71** **KR7**	CTGCACCTGCTTAATATGTTGGGTGATGAATATGGTTC CTGCACCTGCACATGTCTATTCCAAGAATCTTG CTGCACCTGCGATCAGACTGAAAATAATGG GCACCTGCCAATATTATGGGACATTGTTAATGATGAG	Primers for construction of hybrid CeN-KlC protein encoding gene
CD3 **CR3**	CTGCACCTGCTTAATATGTTGGGTGATGAATATGGTTC CAGCACCTGCTAGAATTACAAGATCAAATAAGTAACCAATG	Primers for amplification of the *CeSEC59* gene CDS for cloning into pJET-KlS59k and pJET-ScS59k
KLA1 **KLS1**	AATCAATGTAAACAGCGGATCTAA AAACTTAGATCCGCTGTTTACATT	Linker K1 encoding 20 bp gRNA targeting *KlSEC59* sequence for replacement of *KlSEC59* CDS by CRISPR/Cas9
KLA2 **KLS2**	GATCGATATTGTTGGAATCTATGA AAACTCATAGATTCCAACAATATC	Linker K2 encoding 20 bp gRNA targeting *KlSEC59* sequence for replacement of *KlSEC59* CDS by CRISPR/Cas9
SLA1 **SLS1**	AATCTATTCTGTTCATTGCCTATA AAACTATAGGCAATGAACAGAATA	Linker S1 encoding 20 bp gRNA targeting *ScSEC59* sequence for replacement of *ScSEC59* CDS by CRISPR/Cas9
SLA2 **SLS2**	GATCTCACAAATCATCATAAATGC AAACGCATTTATGATGATTTGTGA	Linker S2 encoding 20 bp gRNA targeting *ScSEC59* sequence for replacement of *ScSEC59* CDS by CRISPR/Cas9
SD4 **SR4**	CGTCACCTGCGGGATCATAGCGGGCCATTGATCATATC GCACACCTGCCGCTATGATCCCTATCATCAGCAAACCTTC	Primers for introduction of DK PAM1 mutation into *ScSEC59* gene

SD5 **SR5**	CGTCACCTGCTCCCGAAAATTGGGTCATTTCATCATTTTC GCACACCTGCCAATTTTCGGGAGGTGTTC	Primers for introduction of DK W332G mutation into *ScSEC59* gene
SD6 **SR6**	CGTCACCTGCATATCAACACCTTTATTAATG GCACACCTGCAGGTGTTGATATTGAGAAGAGTAAATAAAG	Primers for introduction of DK G407S mutation into *ScSEC59* gene
SD7 **SR7**	CGTCACCTGCATAGGATTGGGAATTGGTG GCACACCTGCTCCCAATCCTATTGAACCCATTGGAGAG	Primers for introduction of DK L421S mutation into *ScSEC59* gene
SD8 **SR8**	CGTCACCTGCGGATTGGGAATTGGTGATTCACTAGCATC GCACACCTGCAATTCCCAATCCTATTAGATCCATTGGAGAG	Primers for introduction of DK G420D and PAM2 silent mutation into *ScSEC59* gene
SLA3 **SLS3**	GATCATATGATCAATGGCCCGCTG AAACCAGCGGGCCATTGATCATAT	Linker S3 encoding 20 bp gRNA targeting *ScSEC59* sequence for its replacement into mutant alleles of *ScSEC59* gene by CRISPR/Cas9
SLA4 **SLS4**	GATCTTTACCAATAATAGATGCTA AAACTAGCATCTATTATTGGTAAA	Linker S4 encoding 20 bp gRNA targeting *ScSEC59* sequence for its replacement into mutant allele (G420D) of *ScSEC59* gene by CRISPR/Cas9
SD9 **SR1**	GAAGGGCATTATCCTTGCTCTCAC GCGATTCTTCCAACTCTAAGAGC	Primers for amplification of the *ScSEC59* gene donor DNA fragment
SD1 **SR9**	CTCAGCCTTTCATAGCTCCCACTC GACGTTAAACCTGAATTGGCTAAC	Primers for amplification of the *ScSEC59* gene for sequencing