

Table S3. Oligonucleotide primers used in this study

Primer	Oligonucleotide sequences (5' to 3')
sgRNA/A*	AAAAGCACCGACTCGGTGCCACTTTTTCAAGTTGAT AACGGACTAGCCTTATTTAACTTGCTATTTCTAGCTC TAAAAC
sgRNA18-1/S	GATCACTAATACGACTCACTATAGGCCAACGCGCGG GGAGAGGGTTTTAGAGCTAGAAA
sgRNA18-2/S	GATCACTAATACGACTCACTATAGGCCGATTCATTAAT GCAGCGTTTTAGAGCTAGAAA
sgRNA18-3/S	GATCACTAATACGACTCACTATAGCTTGTCTGTAAGC GGATGCGTTTTAGAGCTAGAAA
sgRNA18-4/S	GATCACTAATACGACTCACTATAGACAAGCTGTGACC GTCTCCGTTTTAGAGCTAGAAA
sgRNArkD-1/S	GATCACTAATACGACTCACTATAGACCAGGTGGGCG ACGGGGGGTTTTAGAGCTAGAAA
sgRNArkD-2/S	GATCACTAATACGACTCACTATAGCCGGACTTGATCC ACTTGCGTTTTAGAGCTAGAAA
sgRNA285/S	GATCACTAATACGACTCACTATAGCTCACCGACGACC CGCGCAGTTTTAGAGCTAGAAA
sgRNAhomE-1/S	GATCACTAATACGACTCACTATAGGCCACGTCGCCG TCGCTCCGTTTTAGAGCTAGAAA
sgRNAhomE-2/S	GATCACTAATACGACTCACTATAGA AACTCGAAGAAGA AGTGCGTTTTAGAGCTAGAAA
28+cas9-up	CCGCGCGGCAGCCATATGGATAAGAAATACTCAAT
28+cas9-dn	ACGGAGCTCGAATTCTTAGTCACCTCCTAGCTGAC

rkDCK1	CTGCCGCCGTACGTCTTCGA
rkDCK2	CAGCCCCTGTTGAACTCGC
285CK1	CGGCTAAAAAAGTCATGGCT
285CK2	CAACGGCGTCAGCCGGGCAG
homECK1	GGTGCTGGAGCGGAGGTTGG
homECK2	GCAGCACCAGCAGGATGTCG
bla-up	ACGAAAGGGCCTCGTGATAC
bla-dn	CAATCTAAAGTATATATGAG

* sgRNA/A is a common bottom oligo for transcription template DNA. T7 promoter sequence is presented in green, the guide sequence for the refitment of transcription template DNA in red and the sequence of sgRNAx/S in blue is the overlapping region with sgRNA/A.