

Table 1. List of the target sequences for the gRNAs.

Target Site	Target Sequence
Alb gRNA (sgAlb)	TAAACTGTTGTTAGGCCAT
GAPDH gRNA (sgGAPDH)	GTGCAGGGTCTGGCGCCCTC
PGK1 gRNA (sgPGK1)	TTACTACCTGGGCAGTACAG
AAVS1 gRNA (sgAAVS1)	AAGGAATCTGCCTAACAGG
SEL1L gRNA (sgSEL1L)	GCAGGAAGAGCAGCGGCGAG
ERK1 gRNA (sgERK1)	GGGAGCCCCGTAGAACCGA
ARPC2 gRNA (sgARPC2)	CAGGCGGGTTCAGGCTTCG

Table 2. List of RT-qPCR and qPCR Primers

Primers	Primer Sequence
Primers for lentivirus titer determination	
ACTB-titer-F	TCGTGCGTGACATTAAGGAG
ACTB-titer-R	GGCAGCTCGTAGCTCTTCTC
Lenti-titer-F	TTCAGACCTGGAGGAGGAGA
Lenti-titer-R	CCAAGAACCCAAGGAACAAA
Primers for VICEP titer determination and Indel% analysis	
VICEP-sgAAVS1-F	ATCCTCTCTGGCTCCATCGT
VICEP-sgAAVS1-R	AGCCACCTCTCCATCCTCTT
VICEP-sgPGK1-F	CCTGGAAGGTGAGGGTCTTC
VICEP-sgPGK1-R	TGCAAAATCCAGGGTGCACTG
VICEP-sgGAPDH-F	TGGTGAAGCAGGCGTCGGAG
VICEP-sgGAPDH-R	AGGGGTCTACATGGCAACTG
RT-qPCR primers for human cells or sgRNA level in VICEP	
ACTB-F1	GGACTTCGAGCAAGAGATGG
ACTB-R1	AGCACTGTGTTGGCGTACAG
GFP-F	ACGTAAACGGCCACAAGTTC
GFP-R	AAGTCGTGCTGCTTCATGTG
HBB-T87Q-F	CAAGGGCACCTTTGCCCAG
HBB-T87Q-R	ATTAGCCACACCAGCCACC
SEL1L-F	TGAATGTACATCAGATGGGAGG
SEL1L-R	TTCTTCAGTTTCACAAAAGCCC
ERK1-F	ACTCCAAAGCCCTTGACCTG
ERK1-R	CTCGGCCACTGGCTCATC
ARPC2-F	CTGGAGGTGAACAACCGCAT
ARPC2-R	GACCCCATCGAAATCTGCAAA
sgRNA-F	GCTGGAAACAGCATAGCAAG
sgRNA-R	CGACTCGGTGCCACTTTTT
Primers used for long-fragment PCR	
AAVS1-lonPCR-F	CTAACGCTGCCGTCTCTCTC
AAVS1-lonPCR-R	GGGGCTGGCTACTGGCCTTA