

Supplementary Material

Efficient generation of goats with defined point mutation (I397V) in *GDF9* through CRISPR/Cas 9

Yiyuan Niu^A, Xiaoe Zhao^B, Jiankui Zhou^C, Yan Li^A, Yu Huang^A, Bei Cai^A, Yutai Liu^B, Qiang Ding^A, Shiwei Zhou^A, Jin Zhao^A, Guangxian Zhou^A, Baohua Ma^B, Xingxu Huang^C, Xiaolong Wang^{A,D} and Yulin Chen^{A,D}

^ACollege of Animal Science and Technology, Northwest A&F University, #22, Xinong Road, Yangling 712100, China.

^BCollege of Veterinary Medicine, Northwest A&F University, #22, Xinong Road, Yangling 712100, China.

^CSchool of Life Science and Technology, ShanghaiTech University, #100, Haike Road, Shanghai 201210, China.

^DCorresponding authors. Emails: cheneyulin@nwafu.edu.cn; xiaolongwang@nwafu.edu.cn

Table S1. Oligonucleotides for generating sgRNA expression vectors

Name	Sequence
GDF9 sgRNA top strand	TAGGCTCTCCGATTCACACCA
GDF9 sgRNA bottom strand	AAACTGGTGTGAATCGGAGAG
ssODN	AGGGGACTGTCCCAGGGCGGTTGGACATCGGTATGGCT CTCCGGTGCACACCATGGTGCAGAACATCATCCATGAG AAACTTGACTCCT

Table S2. Primers for genotyping and amplifying Cas9/sgRNA targeted *GDF9* fragment

Name	Sequence	Amplicon (bp)
GDF9 CK 1F	GGTTCAGCTTCAGTCAATCT	518
GDF9 CK 1R	ATGCTAACTATACAGGCTCCTC	

Table S3. sgRNA sequences and target sites

sgRNA	Targeting site	Location	Strand
GDF9 sgRNA	GGCTCTCCGATTCACACCATGG	Chr7:40637547-40637568	-

Table S4. Primers for genotyping and amplifying predicted off-target locus fragments

Name	Sequence	Amplicon (bp)
gGDF9-OT1F	TGTTCTGTTCTGTGCTCAGTCAT	595
gGDF9-OT1R	TTCATCCACTCCAGTGAAGCT	
gGDF9-OT2F	GGATAACAGTACCAGGCACATAC	561
gGDF9-OT2R	GCCAATGCTCATCCTCTTGTC	