

Supplementary Table 1 Cell line, strain and materials used in this study.

Cell lines, Strains or Plasmids	Properties	Source
Cell line		
HEK-293T	HEK293 cells derivate, Δ SV40 T antigen	Our laboratory
Strains		
DH5 α	E.coli derivate, R ⁻ 、M ⁻ 、AMP ⁻	Our laboratory
Plasmids		
pLV3-CMV-CTGF(human)-EF1-TagRFP-Puro	A lentivirus vector	MiaoLingBio
pCMV-SpyCas9	For gene editing	Our laboratory
pCMV-PE6d	For gene editing	Our laboratory
pU6-sgRNA-seed1	For SpyCas9	Our laboratory
pU6-sgRNA-seed2	For SpyCas9	Our laboratory
pU6-pegRNA	For PE6d	Our laboratory

Supplementary Table 2 Primers in plasmid construction used in this study.

Primer	Sequence (5'-3')	Description
oLK-1	AAGATTCTAGAGCT	For amplification of CRISPR-Bright
	AGCGGCCGCCATGG	
	CTAGCCGACTGCAG	
	CGGA	
oLK-15	ATCCTTCGCGGCCG	
	CGGATCCTTACAGG	
	CGATCCAGAATCCA	
	CAG	
T7E1-F	AAGCAAGTGCGTCG	For T7E1 assay
	AGGC	
T7E1-R	ACGTTACGGCGAC	
	TACTG	

Supplementary Table 3 Sequence information.

Gene	Sequence (5'-3')
oxStayGold	ACCCCATTTAAATTCCAGCTGAAGGGCACCATTAACGG CAAAAGCTTCACCGTTGAAGGCGAAGGCGAAGGTAAT AGCCACGAAGGTAGCCACAAGGGCAAATACGTCTGTA CCTCTGGTAAGCTGCCAATGTCTTGGGCAGCACTGGGT ACAAGTTTCGGCTACGGCATGAAATACTACACCAAGTA CCCAAGCGGCCTGAAAACTGGTTCCACGAAGTCATG CCAGAAGGTTTCACCTACGACCGTCACATCCAGTACAA GGGAGATGGTAGCATTACGCCAAACATCAGCACTTC ATGAAGAACGGCACCTACCACAACATCGTCGAATTTAC CGGCCAGGACTTCAAAGAAAACAGCCCAGTTCTGACC GGCGATATGAACGTTAGCCTGCCGAACGAAGTTCAGC ATATTCCGCGCGACGACGGAGTTGAGTGTCCAGTTACA CTGCTGTACCCACTGCTGTCTGATAAAAGCAAGTGCGT CGAGGCACATCAGAACACCATCTGCAAACCGCTGCAT AATCAGCCAGCACCAAGACGTTCCATATCATTGGATTCTG CAAGCAGTACACCCAGAGCAAAGACGATACCGAAGAA CGCGATCACATCTGTCAGAGCGAAACACTGGAAGCAC ATCTG

Quenching peptide	TGCAACGACAGCTCTGATCCACTGGTTGTTGCCGCAAG CATTATCGGCATTCTGCACCTGATCCTGTGGATTCTGG ATCGCCTG
Linker sequence	GGTAACCCTTGGCATGAACCATCTGCAAGCGCAGTTCT GGAAGTTCTGTTCCAGGGACCT
pegRNA	<u>ACCATCTGCAAGCGCAGTTCGTTTAAGAGCTATGCTGG</u> AAACAGCATAGCAAGTTTAAATAAGGCTAGTCCGTTATC AACTTGAAAAAGTG <u>CCTGGAACAGAACTTCACAGAAC</u> <u>TGCGCTTGCAGA</u>
sgRNA-seed1	<u>ACCATCTGCAAGCGCAGTTCGTTTAAGAGCTATGCTGG</u> AAACAGCATAGCAAGTTTAAATAAGGCTAGTCCGTTATC AACTTGAAAAAGTG
sgRNA-seed2	<u>CTTGCAGATGGTTCATGCCAGTTTTAGAGCTAGAAATAG</u> CAAGTTAAAATAAGGCTAGTCCGTTATCAACTTGAAAA AGTGGCACCGAGTCGGTGC
