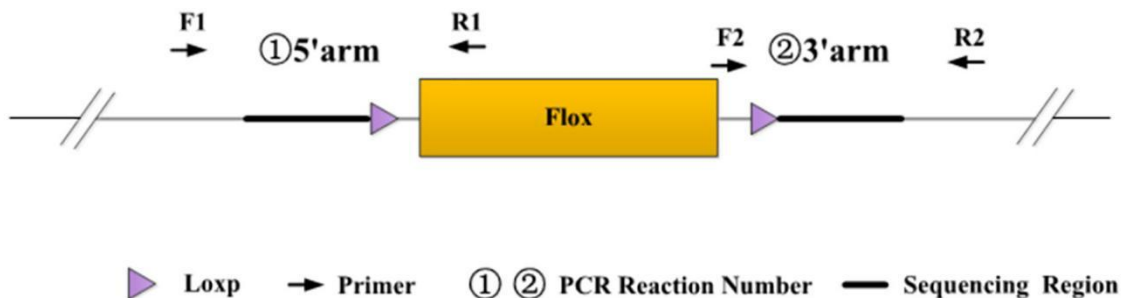


Genotyping Report

Strain ID	T019286	Strain Type	CKO(Cas9)	Genetic Background	C57BL/6JGpt
Designer	Yin Chen	Gene Name	Mcam		

1. Strategy of Genotyping



Wild type: ①PCR reaction obtains a single WT band; ②PCR reaction obtains none band.

Heterozygote: ①PCR reaction obtains a WT band and a Targeted band; ②PCR reaction obtains a Targeted band.

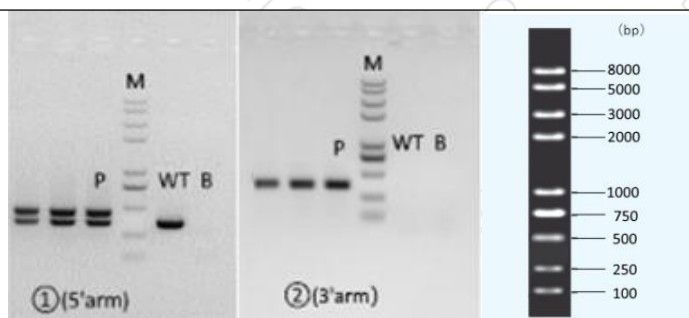
Homozygote: ①PCR reaction obtains a single Targeted band; ②PCR reaction obtains a Targeted band.

Note: The sizes of WT and Targeted band are shown below.

2. Primer Information

PCR No.	Primer No.	Primer Name	Sequence	Band Size
①(5'arm)	F1	JS09580-Mcam-5wt-tF1	TGTAAAGAGAGCACAGCTCCTTCTG	WT:296bp Targeted:398bp
	R1	JS09580-Mcam-5wt-tR1	CTAGTGTTAGGGGGTTGAAAGTGTG	
②(3'arm)	F2	ZMK2F4	CATCGCATTGTCTGAGTAGGTG	WT:0bp Targeted:336bp
	R2	JS09580-Mcam-3wt-tR1	GCTTGGTATTTACCCTAGAAAGCACT	

3. Gel Image & Conclusion



Note: P: Heterozygous samples; WT: Wildtype control; B: Blank control (ddH₂O); M: DNA Ladder

① Control (WT) : It is an important reference mark for whether the PCR reaction is successful and whether the

product band position and size meet the theoretical requirements.

4. PCR Condition

(Generally recommend to use Vazyme P222; If the sequences contain special structures such as $GC\% \geq 60\%$ or $GC\% \leq 40\%$, recommend to use Vazyme P515.)

PCR Reaction Component			
Seg.	reaction component		Volume (μl)
1	2 × Rapid Taq Master Mix(Vazyme P222) or 2 × Phanta Max Master Mix (Vazyme P515)		12.5
2	ddH2O		9.5
3	Primer A(10pmol/μl)		1
4	Primer B(10pmol/μl)		1
5	Template(20~80ng/μl)		1
PCR program I priority selection			
Seg.	Temp.	Time	Cycle
1	95℃	5min	20×
2	98℃	30s	
3	65℃* (-0.5℃/cycle)	30s	
4	72℃	45s*	
5	98℃	30s	15×
6	55℃*	30s	
7	72℃	45s*	
8	72℃	5min	
9	10℃	hold	
PCR program II the second choice			
Seg.	Temp.	Time	Cycle
1	95℃	5min	35×
2	98℃	30s	
3	58℃*	30s	
4	72℃	45s*	
5	72℃	5min	
6	10℃	hold	

Note*: Annealing temperature and extension time can be determined according to the actual amplification situation and amplification enzyme efficiency.