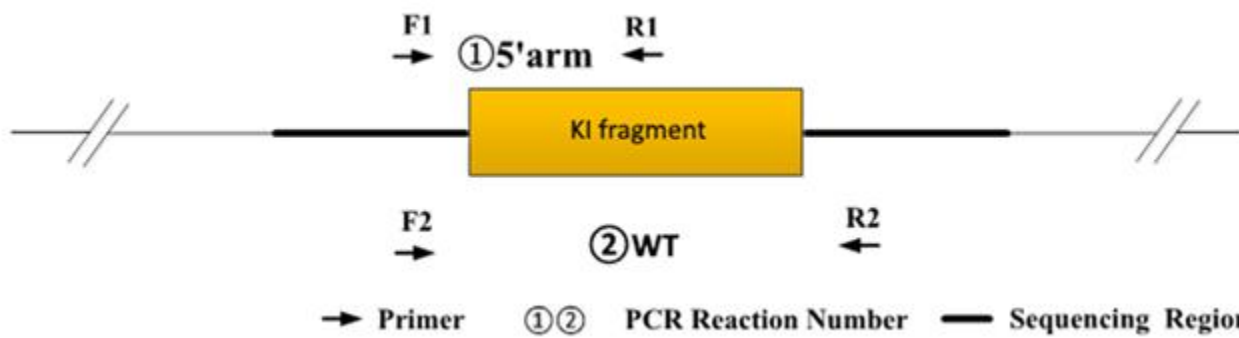


## Genotyping Report

Strain ID	T050099	Strain Type	KI(Cas9)	Genetic Background	C57BL/6JGpt
Designer	Tianjiao Wang	Gene Name	Sox2-rox-stop-rox-P2A-iCre		

### 1. Strategy of Genotyping



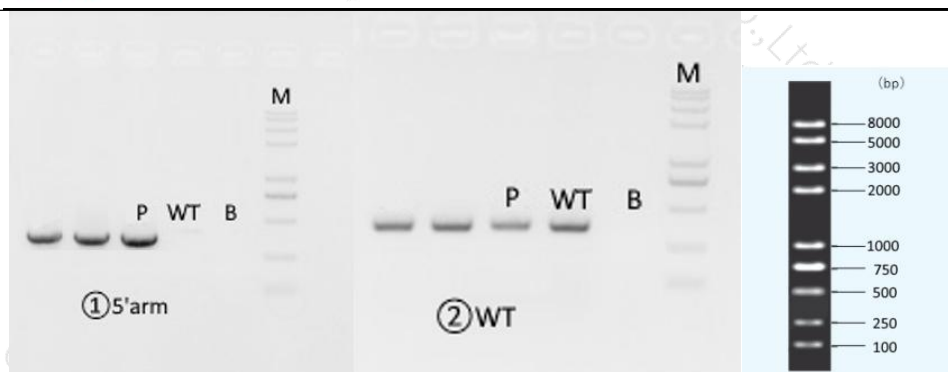
Wild type: ①PCR reaction obtains none band; ②PCR reaction obtains a WT band.  
Heterozygote: ①PCR reaction obtains a Targeted band; ②PCR reaction obtains a WT band.  
Homozygote: ①PCR reaction obtains a Targeted band; ②PCR reaction obtains none band.  
Note: The sizes of WT and Targeted band are shown below. For ②PCR reaction, because the WT band is much smaller than the target band, it is likely to produce dominant amplification, the reaction is only used to judge whether there is a WT allele.

### 2. Primer Information

PCR No.	Primer No.	Sequence	Band Size
① 5'arm	T050099-F1	TGGTTACCTCTTCCTCCCACTCCA	WT:0bp Targeted:371bp
	T050099-R1	CCGTAGCTCCAATCCTTCCATTC	
② WT	T050099-F2	TGGTTACCTCTTCCTCCCACTCCA	WT:396bp Targeted:0bp
	T050099-R2	AAGTTTTCTAGTCGGCATCACGG	

### 3. Gel Image & Conclusion

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Note: P:Heterozygous samples; WT: Wildtype control; B: Blank control (ddH<sub>2</sub>O); 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.

② Control (B) : PCR amplification was performed without template in the PCR reagent to monitor whether the reagent was contaminated.

#### 4. PCR Condition

PCR Reaction Component			
Seg.	reaction component		Volume (μl)
1	2 × Rapid Taq Master Mix (Vazyme P222)		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.