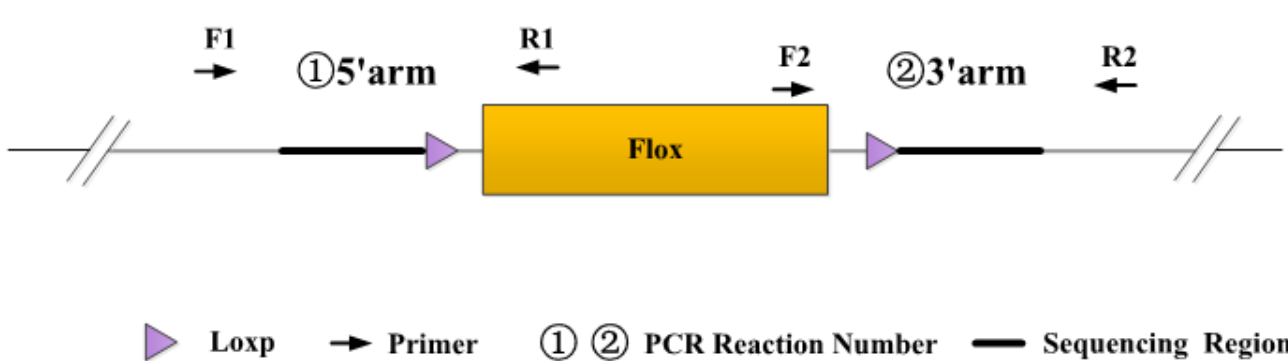





## Genotyping Report

Strain ID	T022666	Strain Type	CKO(Cas9)	Genetic Background	C57BL/6JGpt
Designer	Binjie Jiao	Gene Name	<i>Ccdc22</i>		

### 1. Strategy of Genotyping



 **Loxp**     **Primer**    ① ② **PCR Reaction Number**     **Sequencing Region**

Wild type: ①PCR reaction obtains a single WT band; ②PCR reaction obtains a single WT band.  
 Heterozygote: ①PCR reaction obtains a WT band and a Targeted band; ②PCR reaction obtains a WT band and a Targeted band.  
 Homozygote: ①PCR reaction obtains a single Targeted band; ②PCR reaction obtains a single 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	T022666(P2)-F1	CCATGGTTTGCCAGAACAACC	WT: 528bp
	R1	T022666(P2)-R1	ATTCCAGGAGTGTGCTGTTGTGG	Targeted: 633bp
②(3'arm)	F2	T022666(P2)-F2	CTTGGTTGCACTGTTCTTGAGCATG	WT: 422bp
	R2	T022666(P2)-R2	AGGAGTAACATGCTACCAATCTGGG	Targeted: 528bp

### 3. Gel Image & Conclusion



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

(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.