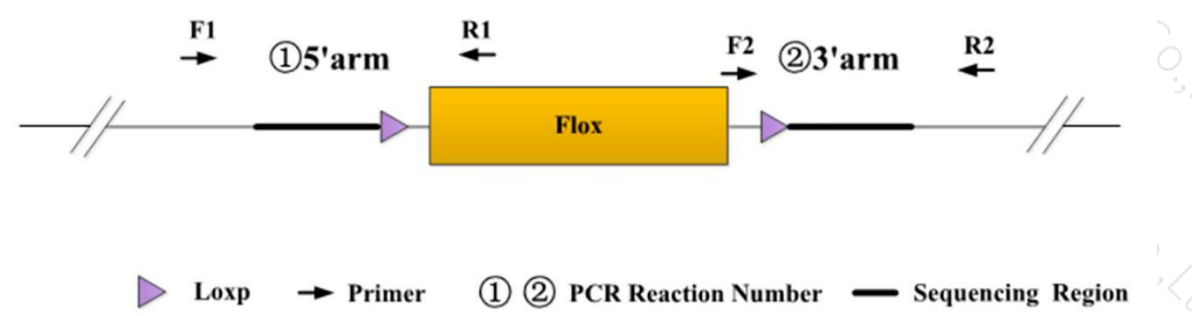


Genotyping Report

Strain ID	T008338	Strain Type	CKO(Cas9)	Genetic Background	C57BL/6JGpt
Designer	Zifan Lin	Gene Name	<i>Aars2</i>		

1. Strategy of Genotyping



▶ Loxp \rightarrow Primer ① ② PCR Reaction Number — Sequencing Region

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	JS02317-Aars2-5wt-tF1	AAGCAACAGGAGAAGAGGTGTTGG	WT:268bp Targeted:372bp
	R1	JS02317-Aars2-5wt-tR1	TAACCATCTCAGCAGCCCAGCAT	
②(3'arm)	F2	Neo-3F	TCTGAGGCGGAAAGAACCAG	WT:0bp Targeted:311bp
	R2	JS02317-Aars2-3wt-tR1	TTTCTATTTGAGCCTCTGTACCAAGC	

3. Gel Image & Conclusion

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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.

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% ≥ 60% or GC% ≤ 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	ddH ₂ O		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°C	5min	
2	98°C	30s	20×
3	65°C*(-0.5°C/cycle)	30s	
4	72°C	45s*	
5	98°C	30s	
6	55°C*	30s	15×
7	72°C	45s*	
8	72°C	5min	
9	10°C	hold	
PCR program II (the second choice)			
Seg.	Temp.	Time	Cycle

1	95°C	5min	
2	98°C	30s	35×
3	58°C*	30s	
4	72°C	45s*	
5	72°C	5min	
6	10°C	hold	

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