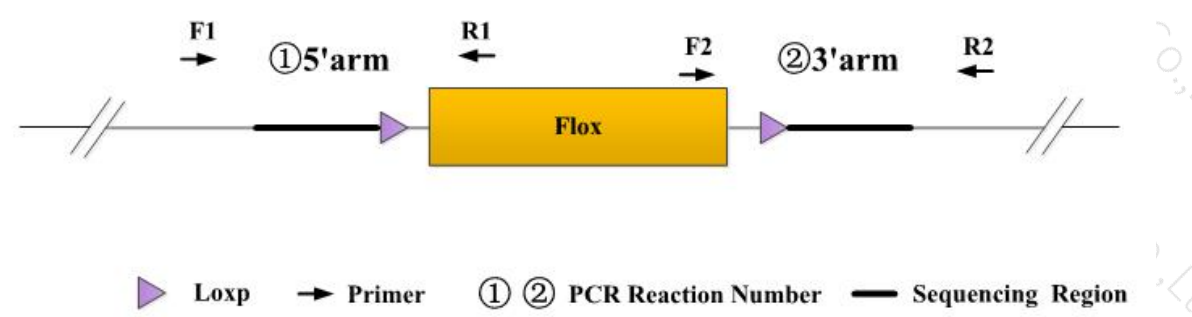


Genotyping Report

| | | | | | |
|-----------|-----------|-------------|--------------|--------------------|-------------|
| Strain ID | T051853 | Strain Type | CKO(Cas9) | Genetic Background | C57BL/6JGpt |
| Designer | Ya'nan Xu | Gene Name | <i>Trim8</i> | | |

1. Strategy of Genotyping



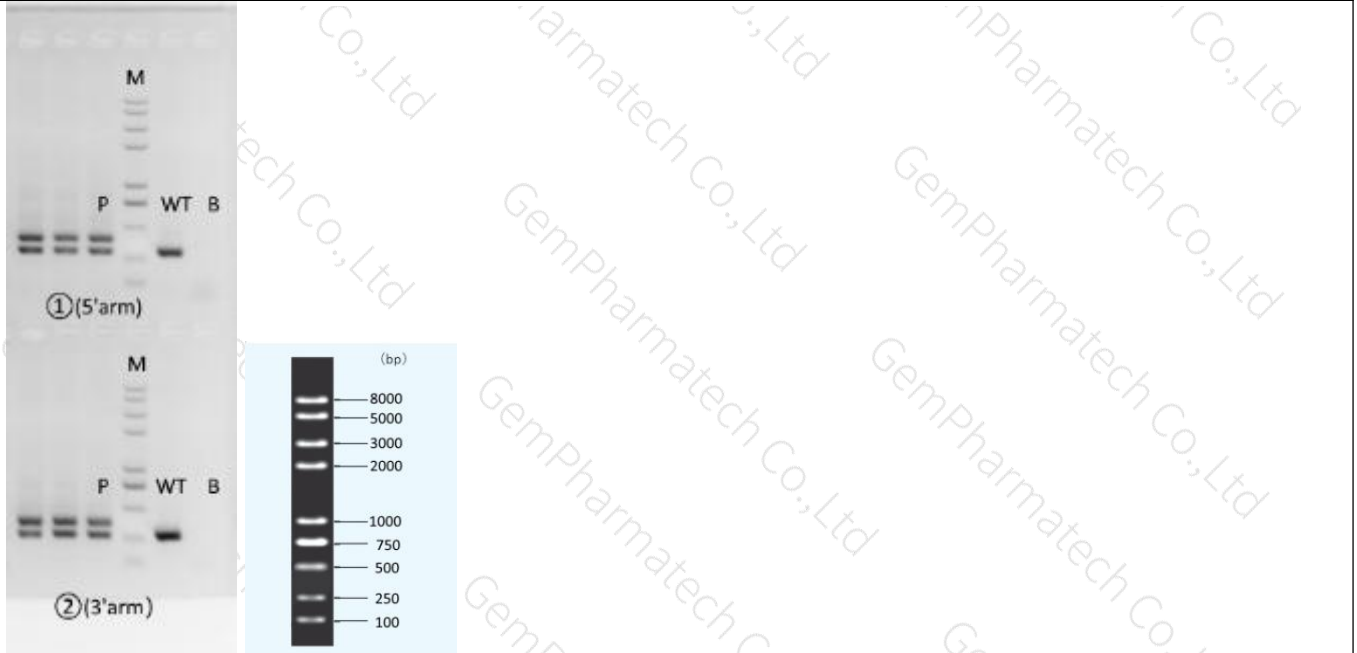
Wild type: ①PCR reaction obtains a single WT band; ②PCR reaction obtains a single WT band.
 Heterozygote: ①PCR reaction obtains a WT band and a Targeted band; ②PCR reaction obtains a WT band and a Targeted band.
 Homozygote: ①PCR reaction obtains a single Targeted band; ②PCR reaction obtains a single 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 | T051853-F1 | CCTGTGTCACCTTGGAGGCTGTTT | WT:274bp Targeted:376bp |
| | R1 | T051853-R1 | AGAGTCAGGTTCCGTTCCCAGCA | |
| ②(3'arm) | F2 | T051853-F2 | GGATTAGAAGGGGAAGGAGGGCTA | WT:254bp Targeted:357bp |
| | R2 | T051853-R2 | AAGCAACCAGTCAACTAACCAGCTAG | |

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 | 15× |

| 6 | 55°C* | 30s | |
|---|-------|------|-------|
| 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.