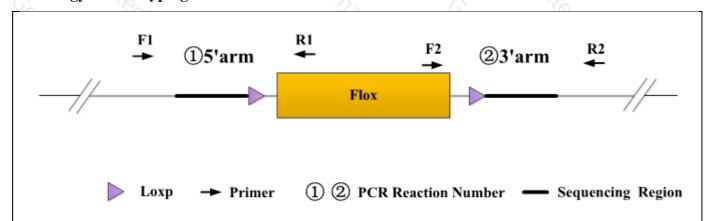


# **Genotyping Report**

| Strain ID | T026136     | Strain Type | CKO(Cas9) | Genetic Background | C57BL/6JGpt |
|-----------|-------------|-------------|-----------|--------------------|-------------|
| Designer  | Binjie Jiao | Gene Name   | 3/2       | Slc13a3            | 0)          |

#### 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.

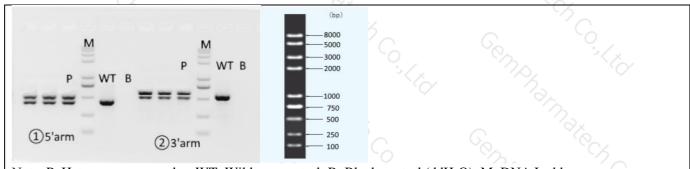
Homozygote: ①PCR reaction obtains a single Targeted band; ②PCR reaction obtains a single Targeted band.

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

### 2. Primer Information

| PCR No.  | Primer<br>No. | Primer Name    | Sequence                  | Band Size                    |  |
|----------|---------------|----------------|---------------------------|------------------------------|--|
| ①(5'arm) | F1            | T026136(P1)-F1 | GACACTTTAGATCGTGCTGGTGG   | WT: 408bp                    |  |
|          | R1            | T026136(P1)-R1 | TGCAAAAGGGCTCCATCAGG      | Targeted: 513bp              |  |
| ②(3'arm) | F2            | T026136(P1)-F2 | GATGACTCCTGAAGACTATCTGAGG | WT: 492bp<br>Targeted: 598bp |  |
|          | R2            | T026136(P1)-R2 | CATGCACATTCATAGGTGTGTGC   |                              |  |

#### 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.

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 C | omponent                     |  | 3/x  |  |
|----------------|------------------------------|--|--|--|
| Seg.           | reaction                     | reaction component                     |  |  |
| 10             | 2 × Rapid Taq Master Mix(Vaz | 2 × Rapid Taq Master Mix (Vazyme P222) |  |  |
| 2 %            | ddH2O                        | (C)                                    | 9.5  |  |
| 3              | Primer A(10pmol/μl)          | 6                                      | 3/1 3/x                                    |  |
| 4              | Primer B(10pmol/μl)          | Primer B(10pmol/μl)                    |  |  |
| 5              | Template(20~80ng/μl)         | Template(20~80ng/μl)                   |  |  |
| PCR program I  | priority selection           | 'S,                                    | 6 6  |  |
| Seg.           | Temp.                        | Time                                   | Cycle                                      |  |
| 1              | 95℃                          | 5min                                   | 72/2                                       |  |
| 2              | 98℃                          | 30s                                    | 20×  |  |
| 3              | 65℃*(-0.5℃/cycle)            | 30s                                    | - TO C                                     |  |
| 4 %            | 72℃                          | 45s*                                   | 74   |  |
| 5              | 98℃                          | 30s                                    | 15×  |  |
| 6              | 55℃*                         | 30s                                    | 79x  |  |
| 7 %            | 72°C                         | 45s*                                   | %  |  |
| 8              | 72℃                          | 5min                                   | 79, 6                                      |  |
| 9              | 10℃                          | hold                                   | 3/2 3/2                                    |  |
| PCR program I  | I the second choice          | 73. C                                  | 9%   |  |
| Seg.           | Temp.                        | Time                                   | Cycle                                      |  |
| 1 7            | 95℃                          | 5min                                   |  |  |
| 2              | 98℃                          | 30s                                    | 35×  |  |
| 3              | 58℃*                         | 30s                                    | 1600                                       |  |
| 4              | 72°C                         | 45s*                                   | 0 ''S                                      |  |
| 5              | 72℃                          | 5min                                   | 34   |  |
| 6              | 10℃                          | hold                                   | 10/2 · · · · · · · · · · · · · · · · · · · |  |

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