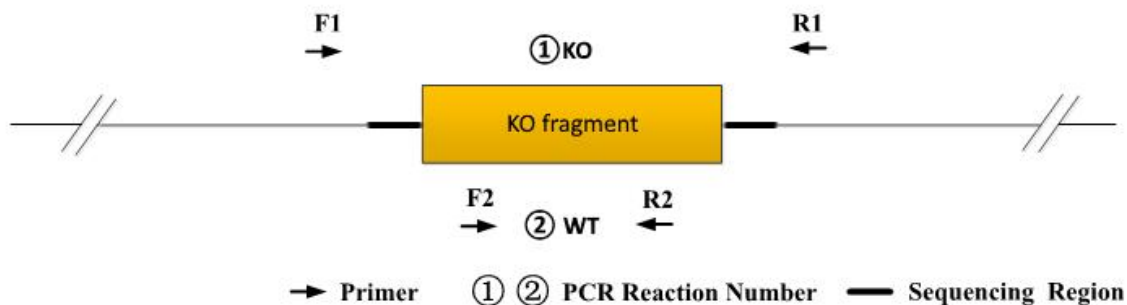


## Genotyping Report

|           |               |             |                |                    |             |
|-----------|---------------|-------------|----------------|--------------------|-------------|
| Strain ID | T028564       | Strain Type | KO(Cas9)       | Genetic Background | C57BL/6JGpt |
| Designer  | Tianjiao Wang | Gene Name   | <i>Rasgrp1</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 KO band; ②PCR reaction obtains a WT band.  
Homozygote: ①PCR reaction obtains a single KO band; ②PCR reaction without product.  
Note: 1)The sizes of WT and Targeted band are shown below.  
2)If the WT band is too large, it may not be possible to obtain a WT band.

### 2. Primer Information

| PCR No. | Primer No. | Sequence                 | Band Size                  |
|---------|------------|--------------------------|----------------------------|
| PCR①    | T028564-F1 | AAAGCCAAGTGGAGCCCAGCTA   | WT:9774bp<br>Target: 366bp |
|         | T028564-R1 | ATCCTACACCTGGGAGTCCAGGT  |                            |
| PCR②    | T028564-F2 | CAAGAAGCGCAAAGTGTCCCTG   | WT:364bp                   |
|         | T028564-R2 | AGTGCCATAGCTTGATAGGCTGAG |                            |

### 3. Gel Image

CTGTATAGAACACAGCTTGCTACCCAAT-----9409bp-----ATAGATGCAGCATGCTGTTGGT



Note: P: Positive control; WT: Wildtype control; B: Blank control (ddH<sub>2</sub>O); M: DNA Ladder

#### 4. PCR Condition

| PCR Reaction Component |                                                 |      |             |
|------------------------|-------------------------------------------------|------|-------------|
| Seg.                   | reaction component                              |      | Volume (μl) |
| 1                      | 2 × Taq Master Mix , Dye Plus, (Vazyme P112-03) |      | 12.5        |
| 2                      | ddH2O                                           |      | 9.5         |
| 3                      | Primer A(10pmol/μl)                             |      | 1           |
| 4                      | Primer B(10pmol/μl)                             |      | 1           |
| 5                      | Template(≈100ng/μl)                             |      | 1           |
| PCR program            |                                                 |      |             |
| Seg.                   | Temp.                                           | Time | Cycle       |
| 1                      | 95℃                                             | 5min | 20×         |
| 2                      | 98℃                                             | 30s  |             |
| 3                      | 65℃ (-0.5℃/cycle)                               | 30s  |             |
| 4                      | 72℃                                             | 45s  |             |
| 5                      | 98℃                                             | 30s  | 20×         |
| 6                      | 55℃                                             | 30s  |             |
| 7                      | 72℃                                             | 45s  |             |
| 8                      | 72℃                                             | 5min |             |
| 9                      | 10℃                                             | hold |             |