

Supplementary materials

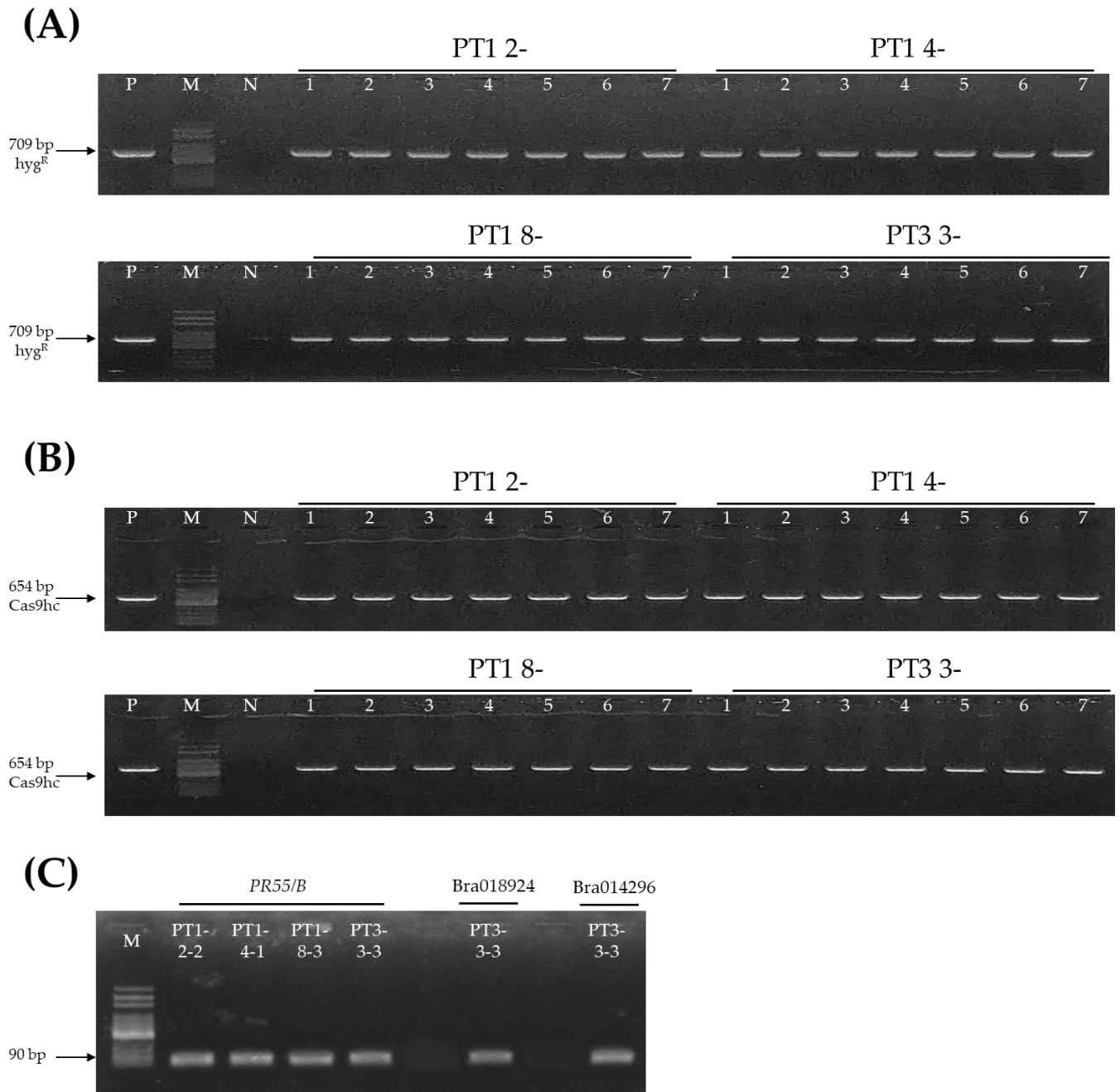


Figure S1. Selection of T₁ gene-edited lines by PCR and RT-PCR analysis. **(A)** PCR analysis with hyg^R primer sets of T₁ gene-edited lines. **(B)** PCR analysis with Cas9hc primer sets of T₁ gene-edited lines. The 709 bp and 654 bp expected PCR products are indicated with an arrow, respectively. P, positive control; M, 100 bp DNA ladder; N, negative control; Numbering lane, gene-edited lines. **(C)** RT-PCR analysis with gene-specific primer sets of T₁ gene-edited lines. The 90bp expected RT-PCR products were amplified. P, positive control; M, 100 bp DNA ladder; N, negative control; Numbering lane, gene-edited lines.

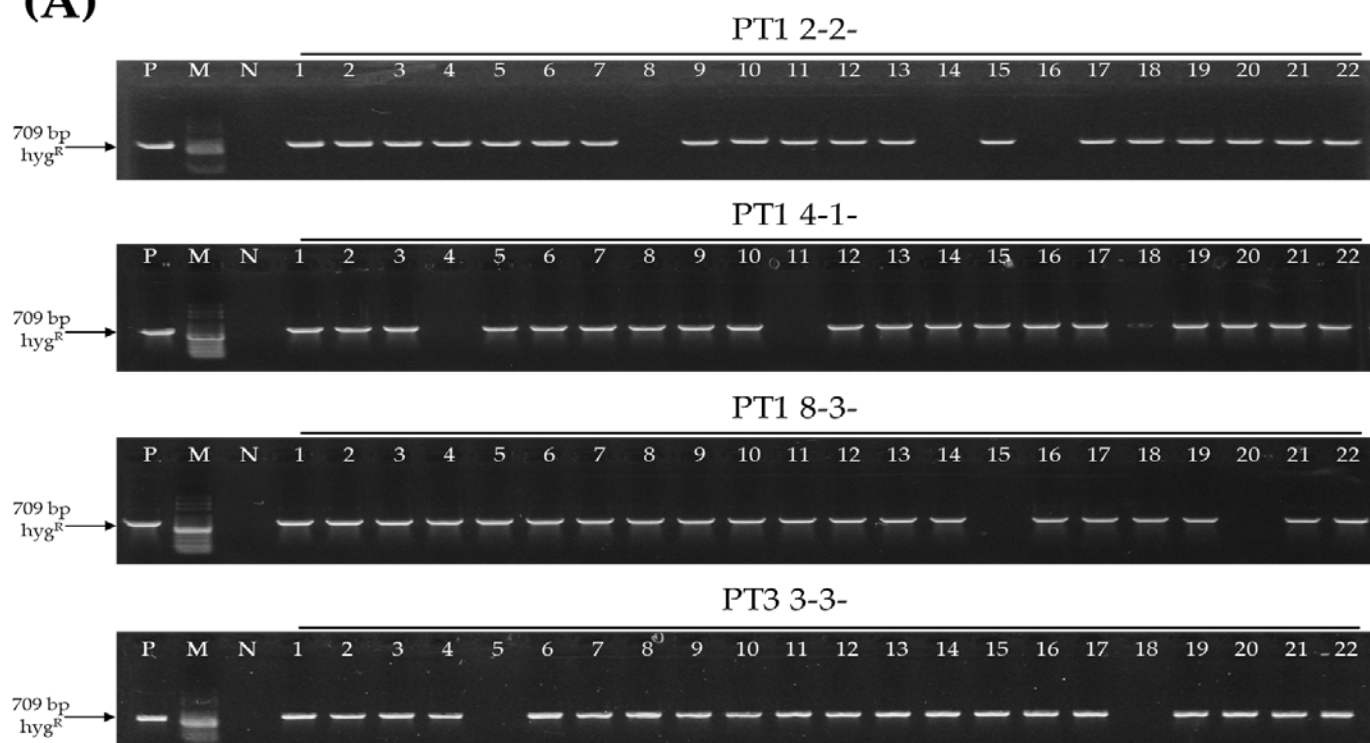
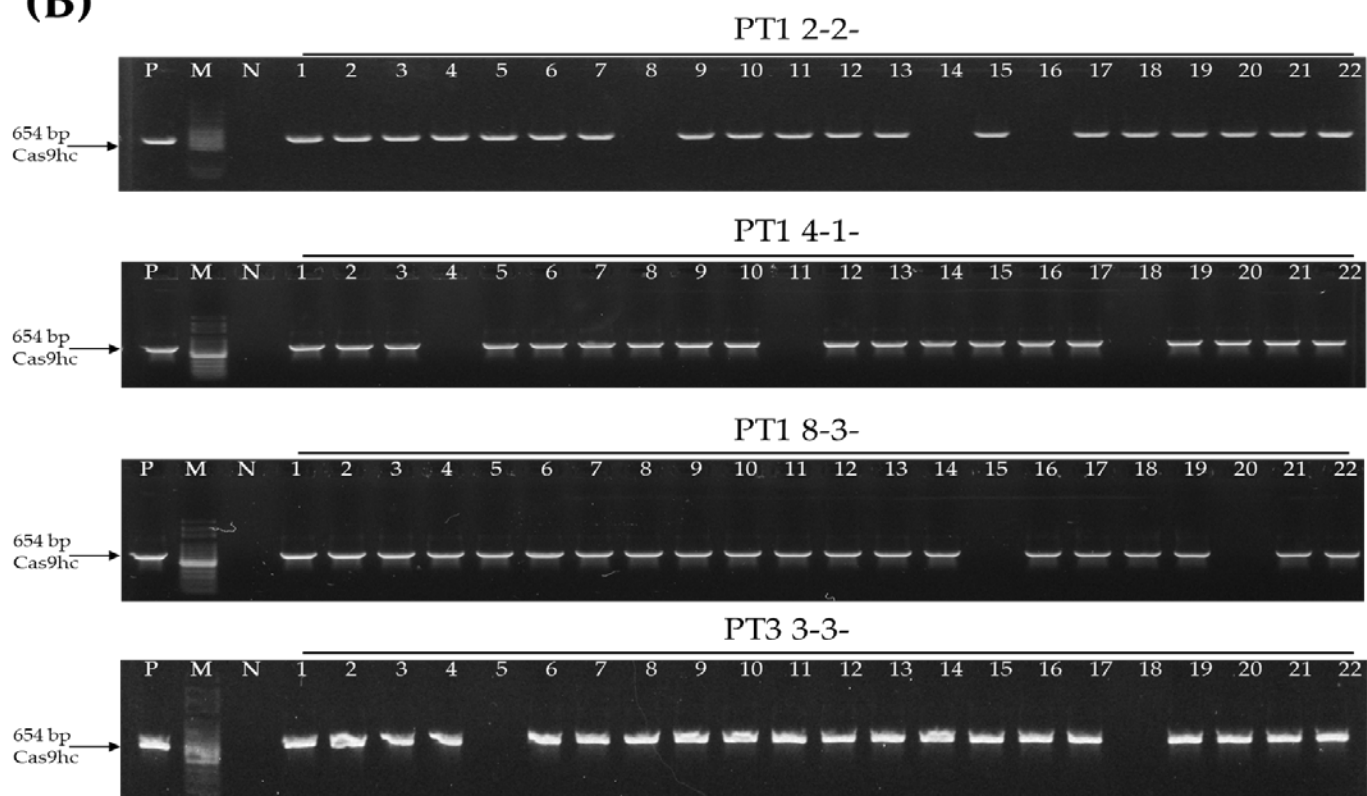
(A)**(B)**

Figure S2. Selection of T₂ gene-edited lines by PCR analysis. **(A)** PCR analysis with hyg^R primer sets of T₂ gene-edited lines. **(B)** PCR analysis with Cas9hc primer sets of T₂ gene-edited lines. The 709 bp and 654 bp expected PCR products are indicated with an arrow, respectively. P, positive control; M, 100 bp DNA ladder; N, negative control; Numbering lane, gene-edited lines.

Table S1. List of primer sets for PCR and RT-PCR analysis.

| Name | Primer | Sequence (5'→3') | Expected product size (bp) |
|------------------------|----------------|-------------------------------|----------------------------|
| hyg^R | F ^z | CGT CTG CTG CTC CAT ACA AG | 709 |
| | R | TGT CGA GAA GTT TCT GAT CGA | |
| Cas9hc | F | CCG CCA GGA GGA CTT CTA CC | 654 |
| | R | ATG TTC TCG GGC TTG TGG CG | |
| PT1 | F | CTC AGG GTC ATG ACT CTG AAA | 80 |
| cSEQ030425 | R | GCG ATC TTG AAG ACA CTG ATC A | |
| PT3 | F | GCA GCA GGT CCT AAG TCG TT | 91 |
| cSEQ030425 | R | ACG GCT AAG GAG ATA TCT TCC | |
| PT3 | F | TTG AGG AAC CAG ATG CA | 103 |
| cSEQ018924 | R | CGG CTA AGT AAG TAT CTT CCT | |
| PT3 | F | CAC TGA GAT TAT TGC TTC AG | 85 |
| cSEQ014296 | R | CTT AAG TGT CAT GTA GTC ACG | |
| | R | GCA GCA GGT CCT AAG TCG TT | |

^zF, forward primer; R, reverse primer.