| Target site | Sequence (5'—3')          |
|------------|--------------------------|
| KN48-T1    | GGAAACCCAAGCTGTGTCATAGG  |
| KN48-T2    | CCCCATGAACCATCAGAAAGTTG  |

Supplementary Table 1. The sequences of target sites
Supplementary Table 2. The primers for PCR amplification

| Primers          | Sequence                                                |
|------------------|---------------------------------------------------------|
| pRGEB32-7s (P1)  | AAGCATCAGATGGGCAAACAAAGCACCAGTGGTCTA                   |
| inf pRGEB32-7s   | AAGCATCAGATGGGCAAACAAA                                   |
| KN48-T1 as (P2)  | ATGACACAGCTTGGGTTTCCTGCACCAGCCGGGAAT                   |
| KN48-T1 s (P3)   | GGAAACCAAGCTGTGTGATGTGTCTAGAGCTAGAAAT                  |
| KN48-T2 as (P4)  | CATGAACCATCAGAAAAAGTTGTGCACCAGCCGGGAAT                 |
| KN48-inf T2 as   | TTCTAGCTCTAAAACCATGAACCATCAGAAAAAGTTG                  |
| Gene  | Forward primer                  | Reverse primer                  |
|-------|--------------------------------|--------------------------------|
| L25   | CCCCTACACAGAGTCTGC             | AAGGGTGTTGTCTCTCAATCTT          |
| CPS2  | ACTCGTGCTCTTGGTACT             | CACACTCAATTTAAGGCG             |
| KS    | AAGTGTAAATGCAATGCGT            | ATGCCACTCAATCCGATAG            |
| KO    | TATCCGGTAACCTACGTCTTG          | ACATACCGCTCCTGCTAA             |
| KAO   | ATGAAAATGGGATGTGAGCA           | CACCTGCTGGCAATGATAA            |
| GA2ox | AGCCATTAAATCTTCTCTCTCT        | TACGACCAATCTGTTATGCC           |
| ZEP   | TCACCATAGCATGATAGACCG          | CTTGACCCAAATAGGCTG             |
| NCED  | ACTCTTCTACACATCC              | TTGTAAGGCACCTTCACG             |