

Table S1. Primers used for cDNA amplification and qRT-PCR

| Primer name | Nucleotide sequence (5' → 3') |
|-------------|---------------------------------|
| SIDCL2a-F | GCTCGGGACGAGACAAAATA |
| SIDCL2a-R | GGAAGGCACATCCAAACAGT |
| SIDCL2b-F | GAATGTCCATCTAATGCTACTGAAC |
| SIDCL2b-R | AACGTGTCGTCTCACAAAGC |
| SIDCL2c-F | TTGTTTGTGGAAACCAGCTAG |
| SIDCL2c-R | TCTTCCAGAACCGAGTCTCCA |
| SIDCL2d-F | CAGGGCGTATTACTACGTTCAA |
| SIDCL2d-R | CAAGCCCTCTTCAAGAATCG |
| SIDCL4-F | GGAAGAGGTCGTAGAGCGATT |
| SIDCL4-R | CACACCAATAACAGGCCACA |
| SIAGO2a-F | TTCTTCCTCCCCCTGATTG |
| SIAGO2a-R | CTTGCCTTCCACCACAGATT |
| SIAGO2b-F | ACGCAGACCTTGTGCTTAC |
| SIAGO2b-R | TCTTGTTCAAATGAGGCAG |
| SIAGO3-F | CTAGGCGGTCAAAATCCACC |
| SIAGO3-R | GCCCATCGTTGAAGTGCCTT |
| SIRDR6-F | GCGGCTATAATGTTGAGTGCAGGG |
| SIRDR6-R | GTCTTATTCTGAGGTGCCAAGC |
| SIActin-F | TGGGATGATATGGAGAAGATATGG |
| SIActin-R | GGCTTCAGTTAGGAGGACAGGA |
| Ps18SrRNA-F | CGTTCTAGTTGGTGGAGCGAT |
| Ps18SrRNA-R | CCATAGTCCCTCTAAGAAGCTG |
| PVYCP-F | CGTCCAAAATGAGAATGCC |
| PVYCP-R | TCTTGTGTACTGATGCCAC |

Primers used for RT-PCR and RT-qPCR were listed. It includes specific primers for PCR to amplify cDNAs of tomato DCLs, AGOs, RDR6 and PVY genome, and those for reference genes, tomato actin and 18S ribosomal RNA in RT-qPCR.