

**Table S1:** Tomato homologs of selected tobamoviral S-genes from literature. Genes in bold are discussed in the text.

| Gene | Reference | Plant species identified | Gene ID | Candidate tomato homolog |
|-----------------------------|--------------------|--|-------------------------------------|--|
| ACS6 | [128] | <i>Arabidopsis</i> | AT4G11280 | Solyc08g081535 Solyc01g095080 |
| ANK | [86] | <i>Nicotiana tabacum</i> cv. Turk | GU320195.1 | Solyc01g104170 Solyc10g024330 |
| ARL8a/b/c | [53] | <i>Arabidopsis</i> | AT3G49870 AT5G67560 AT5G37680 | Solyc02g064640 Solyc02g092330 Solyc03g043960 Solyc11g011040 |
| BAM1/2 | [89] | <i>Arabidopsis</i> | AT5G65700 | Solyc02g091840 |
| CCT8 | [129] | <i>Arabidopsis</i> | AT3G03960 | Solyc01g088080 |
| cPGK | [130] [131,132] | <i>Nicotiana</i> spp., <i>Solanum</i> spp, monocots | AT1G56190 | Solyc07g066610 Solyc07g066600 |
| CPR5 | [133] | <i>O. glaberrima</i> , <i>Arabidopsis</i> | AT5G64930 | Solyc04g054170 |
| DBP1 | [134] | <i>Arabidopsis</i> , <i>N. tabacum</i> , <i>Z. mays</i> , <i>O. sativa</i> | AT2G25620 | Solyc06g065610 |
| eEF1B | [135] | <i>Arabidopsis</i> | AT5G12110 | Solyc11g072190 Solyc07g016150 |
| ERF104 | [128] | <i>Arabidopsis</i> | AOA93097.1 | Solyc03g093550 |
| EXA1, SNC1- ENHANCING 11 | [136] [137] | <i>Arabidopsis</i> , <i>O. sativa</i> , <i>S. lycopersicum</i> | AT5G42950 | Solyc04g080240 |
| GCD10 | [138] | yeast, <i>Arabidopsis</i> | AT2G45730 | Solyc04g081360 |
| GDI2 | [139] | <i>Arabidopsis</i> | AT3G59920 | Solyc12g017570 Solyc08g015860 Solyc01g105810 |
| GMP1 | [140] | <i>Arabidopsis</i> , <i>N. benthamiana</i> | AT2G39770 | Solyc03g096730 Solyc06g051270 Solyc09g011220 |
| HAT1; HAT2; HAT3, TF | [141] | <i>Arabidopsis</i> | AT4G17460 AT5G47370 AT3G60390 | Solyc06g060830 Solyc08g007270 Solyc08g078300 |
| HSP101 | [142,143] | <i>Arabidopsis</i> | AT1G74310 | Solyc03g115230 Solyc06g082560 |

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| HSP70 | [144] | <i>Arabidopsis</i> | AT5G02500 | Solyc09g010630 Solyc11g066060 Solyc06g076020 |
| IP-L | [90] | <i>N. benthamiana</i> | | Solyc05g013630 |
| IRE1a, IRE1b | [145] | <i>Arabidopsis</i> | AT2G17520 AT5G24360 | Solyc02g082470 Solyc04g082620 |
| KELP | [146] | <i>Arabidopsis</i> | AT4G10920 | Solyc08g082580 |
| LET12 | [97] | <i>N. tabacum</i> | LOC107784320 | Solyc07g007120 Solyc08g041820 Solyc12g010410 |
| NtNACCP1, aldose 1- epimerase-like | [147] | <i>N. tabacum</i> , <i>Arabidopsis</i> | AF307094 AT5G14630 | Solyc02g087780 Solyc02g087800 Solyc02g087790 Solyc02g087770 |
| P58 ^{IPK} | [148] | <i>Arabidopsis</i> | AT5G03160 | Solyc09g007630 |
| PAP85 / vilicin | [64] | <i>Arabidopsis</i> | AT3G22640 | Solyc09g082340 Solyc09g082330 Solyc09g065470 |
| PCaP1 | [149] | <i>Arabidopsis</i> | AT4G20260 | Solyc10g005100 |
| PDIL5-1 | [150] | Barley, all plant species | AMX74274.1 AT1G07690 | Solyc11g069690 |
| PDLP1, PDLP1A | [151] | <i>Arabidopsis</i> | AT5G43980 | Solyc06g083750 Solyc03g005690 Solyc09g090680 |
| PME | [99] | <i>N. tabacum</i> , <i>Arabidopsis</i> | AT1G53840 | Solyc03g123630 |
| PVIP1; PVIP2 | [152] [153] | <i>P. vulgaris</i> , <i>Ara-</i> <i>bidopsis</i> , <i>P. sativum</i> , <i>N. benthamiana</i> | ACQ59191.1 | Solyc07g047780 Solyc05g054180 |
| RHD3 | [154] | <i>Arabidopsis</i> | AT3G13870 | Solyc03g121590 Solyc02g030450 |
| RIM1 | [155] | <i>O. sativa</i> , <i>Arabidopsis</i> | Os03G02800 AT1G65910 | Solyc02g036430 Solyc02g081270 |
| SCE1 | [156] | <i>Arabidopsis</i> | AT3G57870 | Solyc03g044260 Solyc02g093110 Solyc12g088680 Solyc04g078620 |
| SYP22/SYP23 | [67] | <i>Arabidopsis</i> | AT5G46860 | Solyc11g066910 Solyc06g062360 Solyc08g076540 Solyc08g005200 |

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|---------------|-----------------|---|------------------------|--|
| SYTA | [103,104] | <i>Arabidopsis</i> | AT2G20990 | Solyc01g111520 Solyc12g089330 |
| TOM1/3 | [73-76, 108] | <i>Arabidopsis, Nico-</i> <i>tiana spp.,</i> <i>S. lycopersicum,</i> <i>C. annuum,</i> <i>O. sativa</i> | AT4G21790 AT2G02180 | Solyc01g105270 Solyc02g080370 Solyc04g008540 Solyc01g007900 |
| TOM2a | [79, 157] | <i>Arabidopsis</i> | AT1G32400 | Solyc08g077220 |
| TOR1 | [158] | <i>Arabidopsis</i> | AT4G27060 | Solyc10g006350 |
| bZIP60 | [159,160] | <i>Arabidopsis</i> | AT1G42990 | Solyc04g082890 |