

**Supplementary Table 1** Primer sequences of *SIANI1* gene used in for construction vectors.

<b>Gene</b>	<b>Forward primer (5'→3')</b>	<b>Reverse primer (5'→3')</b>	<b>Vector type</b>
<i>SIANI1</i>	TCTCTAGAATGGAGAATTC AAGTCAAGAATC	GAGCTCAAAACTCAATTTA TCCCATTCG-3	Overexpression
<i>SIANI1</i>	GAGCTCGTCTGTTTCTGCT GATGGATC	GAATTCCTCTACCAAAGAA AGACAGCC	RNAi
<i>SIANI1</i>	CTCGAGTCTAGAGTCTGTT TCTGCTGATGGATC	AAGCTTCTCTACCAAAGAA AGACAGCC	RNAi
<i>SIANI1</i>	TCTAGAATGGAGAATTCAA GTCAAGAA	CTCGAGTACTTTAAGCAGC TGCAACT	GFP
<i>SIANI1</i>	GGTACCTGCTACTAATTTTG	TCTAGAATTTCTACTAGAGA	GUS
<i>Pro</i>	TGAGTGAAG	TTATAATTGAAATG	

**Supplementary Table 2** Primer sequences of related genes used in quantitative real-time PCR

<b>Gene</b>	<b>Forward primer (5'→3')</b>	<b>Reverse primer (5'→3')</b>
<i>SICHI</i>	TCAAGGCTTCCAGGATATGTCC	GGATGTCCCGAACTTCTCCTTG
<i>SICHS</i>	GGTAGCATAAGGGTAGCAGCC	CTTAAATGGAGGCAAAGCACTT
<i>SIF3'H</i>	GGCGGAAACTTACTGATACAGA	TGACTGTTGGTTTGATTACTTCG
<i>SIDFR</i>	CCAG GTCAGATTCCATAACGAG	TGACTGTTGGTTTGATTACTTCG
<i>SIFLS</i>	CAATGGAGGTAGCAAGGGTC	TGACTGTTGGTTTGATTACTTCG
<i>SIBAN</i>	ATCTCTCTGGCTGGTCCTTAC	TGGGCTCGACAAACATCCTC
<i>SITTG2</i>	CTCATCCACAAATGTTTCGTTCTG	CCTTGGGTTTCTCTACCGATTG
<i>SIANI1</i>	ATTGGAATGAAGTGGAGCCG	CCATCAGCAGAAACAGACGC
<i>SIABI3</i>	ATTGGGACTTGTCGTGTTTGG	CCACACTTTATGTCGGCGTAT
<i>SIABI5</i>	GTAGAATGGGAAACGGTAGCG	ATCCGACGACACGGGACTTAG
<i>SIUBI3</i>	AGGTTGATGACACTGGAAAGGTT	AATCGCCTCCAGCCTTGTTGTA
<i>SIANTI1</i>	GAAAAGTTGTAGATTGAGGTGGC	CCAATAGTTTTTACATCGTTAGC
<i>SIANI2</i>	ATCGTTGGGAGTTAGGAAAGG	GATAGTTTAGCCACCTTAGTCTGC
<i>SIGL3</i>	GCCAAGGGTTACCAGGGA	GAGGTTAGGATCTTCCGTGACA
<i>SITT8</i>	TTCCTCTCTTGACGGTGTTG	CCGAAGTGGAGTGCTCAGATAAA

**Supplementary Table 3** Primer sequences of related genes used in Yeast one/two-hybrid assays

<b>Gene</b>	<b>Forward primer (5'→3')</b>	<b>Reverse primer (5'→3')</b>
<i>SIAN11</i>	CCGCGGATGGAGAATTCAAGTCAA GAA	CTCGAGTTATACTTTAAGCAGCTG CAA
<i>SIANT1</i>	TCTAGAGAATTCATGAACAGTACAT CTATGTCTTCA	CTCGAGTTAATCAAGTAGATTCCA TAAGTC
<i>SIAN2</i>	TCTAGAGAATTCATGAATACTCCTA TGTGTGCATC	CTCGAGCTCTAATATAAAATATCAA ACGTCG
<i>SIGL3</i>	GGATCCCCGCGGATGGCTATGGGA CACCAA	CTCGAGGACCAACCTTGACTGACT AATC
<i>SITT8</i>	TCTAGAGAATTCATGGAGATTATAC AGCCTAATAGC	CTCGAGGAAAGAGCTGAGCAAATT ATAG

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SIAN11 MENSQES -HLRSENVVYDSSVPIVAMAFSSPTSLNRRRLAVGSPFIEFNRRVILSDPDDLLKLPVPLSPFHPFPPTLMFHPNPASBLK--INDILASSGDVLRWLDVT--DSETEPLFPLS 125
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PhAN11 MENSQES -HLRSENVVYDSSVPIVAMAFSSPTSLNRRRLAVGSPFIEFNRRVILSDPDDLLKLPVPLSPFHPFPPTLMFHPNPASBLK--INDILASSGDVLRWLDVT--DSETEPLFPLS 120
PpFWD MENSQES -HLRSENVVYDSSVPIVAMAFSSPTSLNRRRLAVGSPFIEFNRRVILSDPDDLLKLPVPLSPFHPFPPTLMFHPNPASBLK--INDILASSGDVLRWLDVT--DSETEPLFPLS 116
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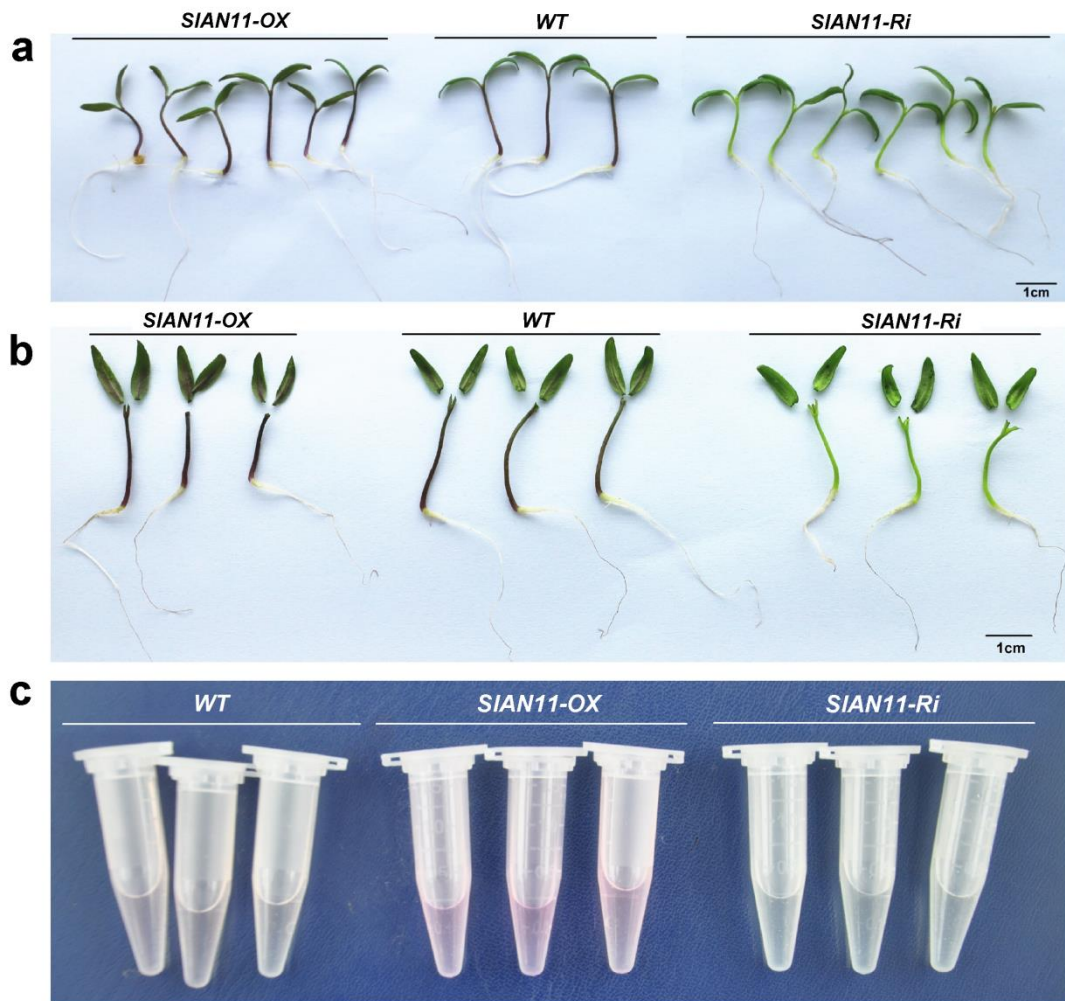
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ruler 1.....140.....150.....160.....170.....180.....190.....200.....210.....220.....230.....240.....250.....260

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StTTG1 MPVALLERHQASVNAIWAPOCRHICSGDDGQALIWELPTVAGPNGIDPMSVYLAGASINQLWSAARPMWIAIFSNKLLKLV 342
NaTTG1 MPVALLERHQASVNAIWAPOCRHICSGDDGQALIWELPTVAGPNGIDPMSVYLAGASINQLWSAARPMWIAIFSNKLLKLV 342
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PgWD40 MPVALLERHQASVNAIWAPOCRHICSGDDGQALIWELPTVAGPNGIDPMSVYLAGASINQLWSAARPMWIAIFSNKLLKLV 334
Mtd40-1 MPVALLERHQASVNAIWAPOCRHICSGDDGQALIWELPTVAGPNGIDPMSVYLAGASINQLWSAARPMWIAIFSNKLLKLV 342
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PtTTG1 MPVALLERHQASVNAIWAPOCRHICSGDDGQALIWELPTVAGPNGIDPMSVYLAGASINQLWSAARPMWIAIFSNKLLKLV 340
AtTTG1 MPVALLERHQASVNAIWAPOCRHICSGDDGQALIWELPTVAGPNGIDPMSVYLAGASINQLWSAARPMWIAIFSNKLLKLV 341
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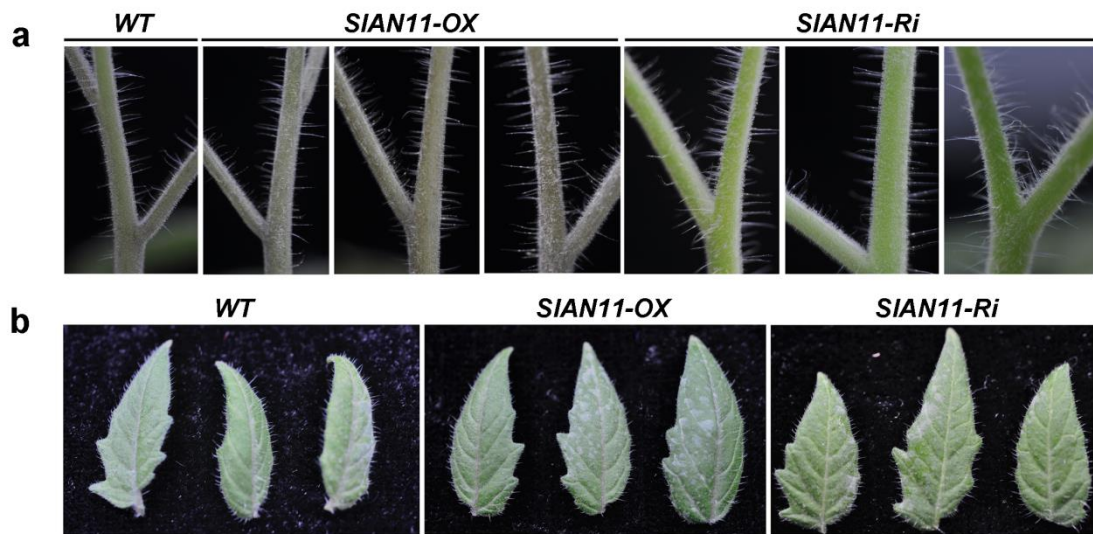
**Supplementary Figure S1** Alignment of deduced amino acid sequences of plant homologues to the Arabidopsis TTG1/WD40 protein.

The WD40 repeat domains are indicated with open boxes. The name of the proteins, their source and GenBank accession numbers are as follows: SIAN11 isolated from *Solanum lycopersicum* (tomato) (XP\_004235332); SpTTG1-like from *Solanum pennellii* (XP\_015067455); StAN11 from *Solanum tuberosum* (potato) (AEF01097); SmTTG1 from *Solanum melongena* (AJN91103); PhAN11 from *Petunia x hybrid* (AAC18914); PtTTG1 from *Populus trichocarpa* (XP\_002318500); MtWD40-1 from *Medicago truncatula* (XP\_003602392); PpFWD from *Perilla frutescens* (BAB58883); MdtTG1-like from *Malus domestica* (NP\_001315674); AtTTG1 from *Arabidopsis thaliana* (CAC10524), NtTTG1 from *Nicotiana tabacum* (ACJ06978); PgWD40 from *Punica granatum* (ADV40946); VvWDR1 from *Vitis vinifera* (NP\_001268101); NaTTG1 from *Nicotiana attenuate* (OIT04713); IpWDR from *Ipomoea purpurea* (ABW69689); SiTTG1 from *Sesamum indicum* (XP\_011075888); RiTTG1 from *Rubus sidaeus* (AEI55401); FaTTG1 from *Fragaria x ananassa* (AFL02466); MnTTG1 from *Morus notabilis* (XP\_010099415).



**Supplementary Figure S2** Phenotypes of anthocyanins accumulation of wildtype and *SIAN11* transgenic seedlings

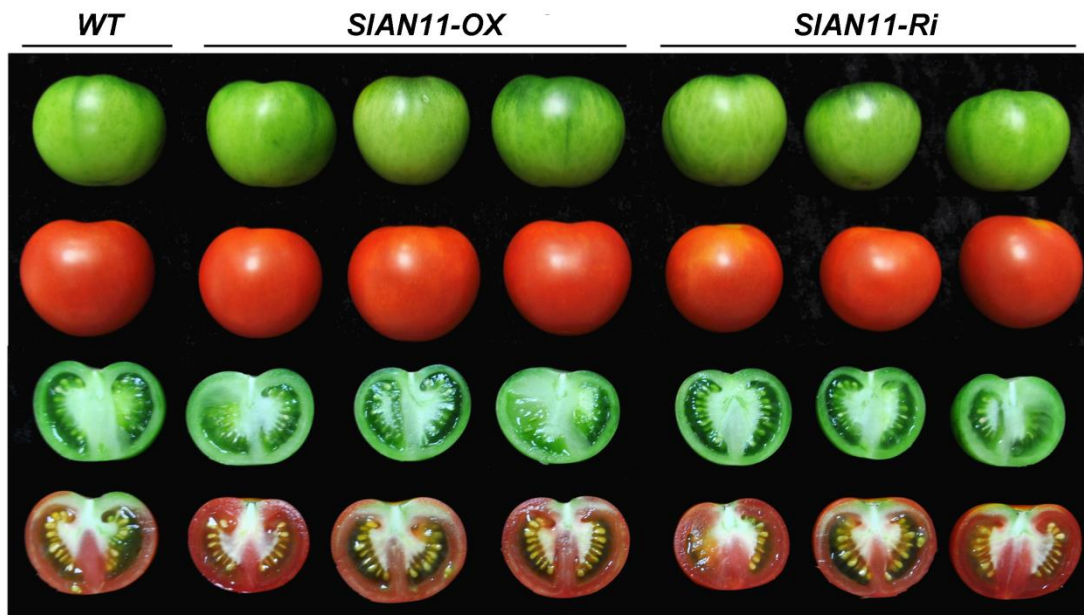
(a, b) Phenotypes of anthocyanins accumulation in cotyledons and hypocotyl from wild-type (WT), *35S::SIAN11* (*SIAN11-OX*) and *SIAN11-RNAi* (*SIAN11-Ri*) transgenic seedlings. (c) Extracts of anthocyanins from 5-days old seedlings. The seedlings were grown in 1/2MS culture bottle and observed 5 days after germination.



**Supplementary Figure S3** *SIAN11* does not affect trichome development in tomato plants

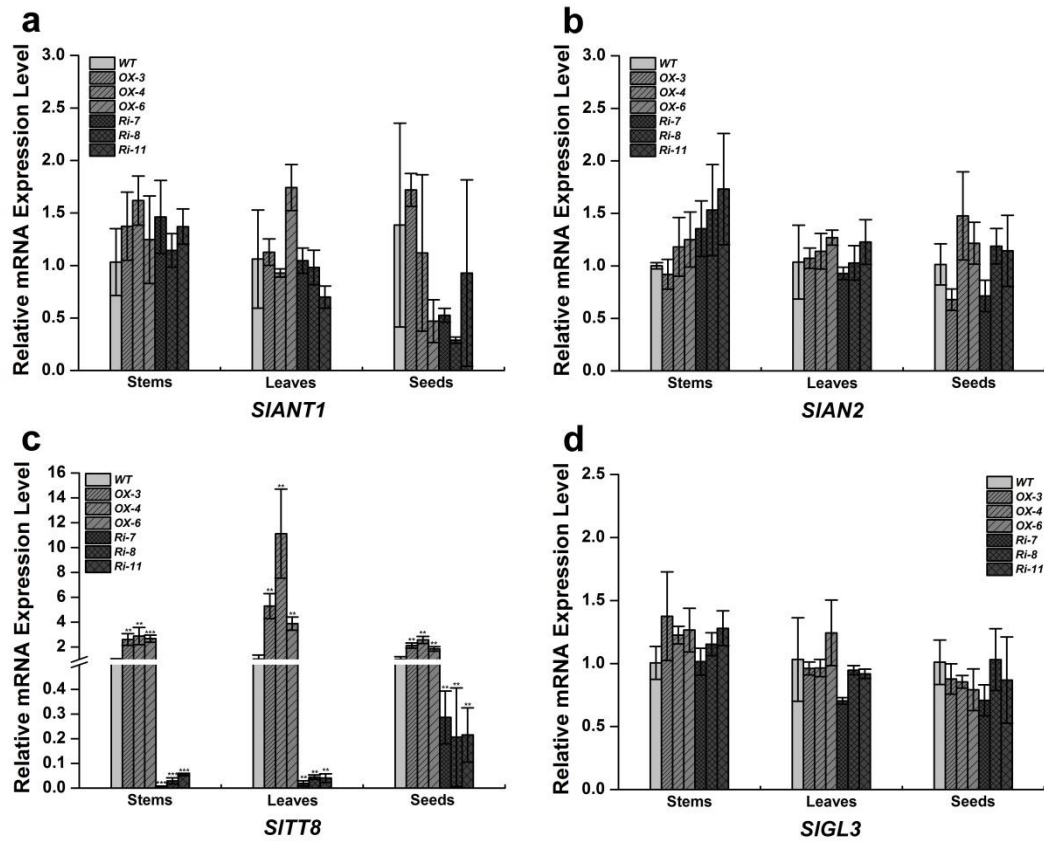
(a, b) Trichomes of stems and leaves from 30d-old wild-type (WT), *35S::SIAN11* (*SIAN11-OX*) and *SIAN11-RNAi* (*SIAN11-Ri*) transgenic plants.





**Supplementary Figure S4** No anthocyanins accumulation in *SIAN11* transgenic tomato fruits.

Phenotype of *35S::SIAN11* and *SIAN11-RNAi* lines compared to the control non-transformed plants (Ailsa Craig). Details of immature green fruits, section of the immature green fruits, red ripened fruits and section of the red fruits are shown.



**Supplementary Figure S5** Expression levels analysis of the endogenous *bHLH* and *MYB* genes in stems, leaves and seeds of wildtype and *SIAN11* transgenic lines.

Total RNAs were extracted from stems, leaves and mature seeds. Relevant mRNA levels were quantified by quantitative RT-PCR and are indicated as relative expression levels compared with the internal control *SIUBI3* mRNA. Results represent mean values  $\pm$  SD from three biological replicates. Asterisks indicate statistically significant differences (\* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ ; *t*-test).