

Supplementary Materials

Table S1. 12 genes annotated as TIR1/AFB in the *Solanum melongena*.

Gene_ID	Pfam	Annotation
<i>Smechr0201811</i>	PF18511; PF18791	AFB6
<i>Smechr0401946</i>	PF18511; PF18791	AFB4/5
<i>Smechr0600089</i>	PF18511; PF18791	TIR1/AFB1A
<i>Smechr0600090</i>		
<i>Smechr0603195</i>	PF18511; PF18791	TIR1/AFB1B
<i>Smechr0902030</i>	PF18511; PF18791	TIR1/AFB1C
<i>Smechr0103558</i>		
<i>Smechr0600091</i>		
<i>Smechr0601415</i>		
<i>Smechr0601517</i>		
<i>Smechr0800268</i>		
<i>Smechr0802236</i>		

Table S2. Predicted miRNAs and their target genes in *Solanum melongena*

Gene_Id	miRNA based on solanum lycopersicun	Number	Function	miRNA bsaed on solanum tuberoiun	Number	Function
<i>SmAFB6</i>	miR1918	1	cleavage	stu-miR393-5p; stu-miR8005b5p; stu-miR166a-5p; stu-miR8029	4	cleavage; translation
<i>SmAFB5</i>		0		stu-miR172a-5p; stu-miR8037	2	cleavage
<i>SmTIR1A</i>		0		stu-miR393-5p; stu-miR319-3p; stu-miR7985; stu-miR319-5p	4	cleavage; translation
<i>SmTIR1C</i>	miR169e3p; miR9471a-3p; miR9471b-3p; miR482d-5p	4	cleavage; translation	stu-miR8032d-3p; stu-miR8032e-3p; stu-miR8032a-3p; stu-miR1886g-5p; stu-miR156f-3p; stu-miR8032g-3p; stu-miR8032f-3p; stu-miR8032b-3p; stu-miR393-5p	9	cleavage
<i>SmTIR1B</i>	miR159	1	cleavage	stu-miR393-5p; stu-miR5303f; stu-miR8008a; stu-miR8009; stu-miR156f-3p; stu-miR7991a; stu-miR7991b; stu-miR7991c; stu-miR171d-5p; stu-miR398a-5p	10	cleavage; translation

Table S3. Primers for qRT-PCR analysis

Gene ID	Primer-F	Primer-R	annotation
<i>Smechr0302615</i>	GGAAGCAGATGGAAGTGATA	CAGGCGTTCTACAGCAAT	Tubulin gamma
<i>SmAFB6</i>	CTCACGAGTCAGCAGTATG	GCAGTTCTTCAAGCAATGG	For RT-qPCR
<i>SmTIR1A</i>	ACACATCTTCTCCAGCATAA	GCAGTTAGCAGCAATAGC	For RT-qPCR
<i>SmTIR1B</i>	CGCTTATCCTTGGCTTGA	AAGTGAGACGAGTGAAGTAG	For RT-qPCR
<i>SmTIR1C</i>	CCTTCCTCACCTCCGATA	CTCATCAGTAATCACCATACG	For RT-qPCR
<i>SmAFB5</i>	AGATGTCTGAAGATGAGGAG	AAGACTTCGGATCTGGTTAA	For RT-qPCR
TRV2-VIGS-	AAGGTTACCGAATTCTCTAGA	CGTGAGCTCGGTACCGGATC	SmAFB5 for VIGS
SmAFB5	TGAGTGGTAGTGACAATCCTTC	CCCAAGGAGTAAAGTGGGCAC	
TRV2-VIGS-	AAGGTTACCGAATTCTCTAGAT	CGTGAGCTCGGTACCGGATCC	SmChl H for VIGS
CHI H	GTCTGAACAGCAGCAGTAAGAG	CTGGCTTCTTTGGTTTCTTCACCAT	

Table S4. Numbers of secondary structures in the SmTIR1/AFB proteins

Protein	β sheets	α helices
SmAFB5	23	24
SmAFB6	23	24
SmTIR1A	23	25
SmTIR1B	23	25
SmTIR1C	23	25



Figure S1. Alignment of the SmTIR1/AFB proteins, showing the location of residues associated with the angle that differed among the proteins (red box) and was located between an α helix (blue box) and a β sheet (green box).