

Figure S1. Volcano plot. RNA-seq analysis was performed with *rSmSPL2*-OE2 grown for two-months. A total of 25174 genes were detected of which 5482 were significantly up-regulated and 5272 were significantly down-regulated.

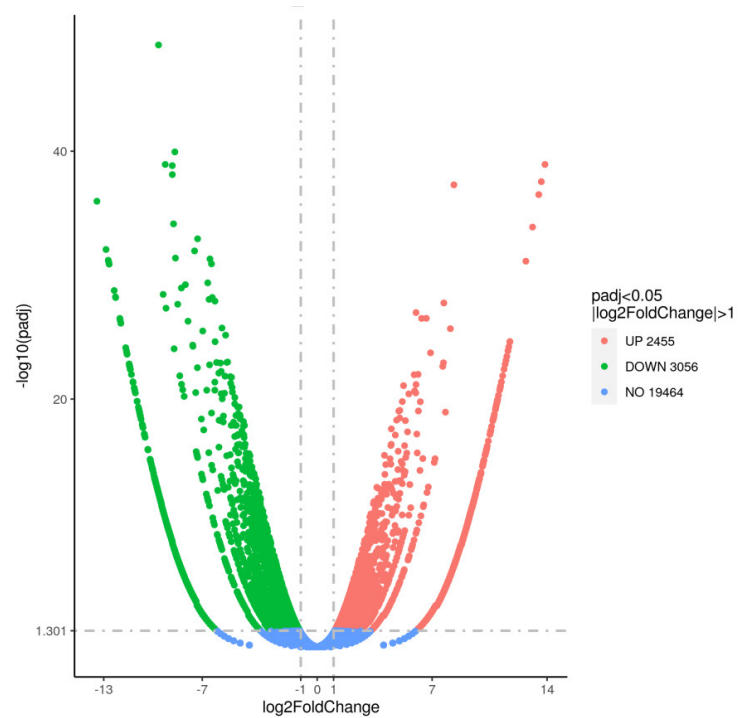


Figure S2. Volcano plot. RNA-seq analysis was performed with *rSmSPL2*-OE7 grown for two-months. A total of 24975 genes were detected of which 2455 were significantly up-regulated and 3056 were significantly down-regulated.

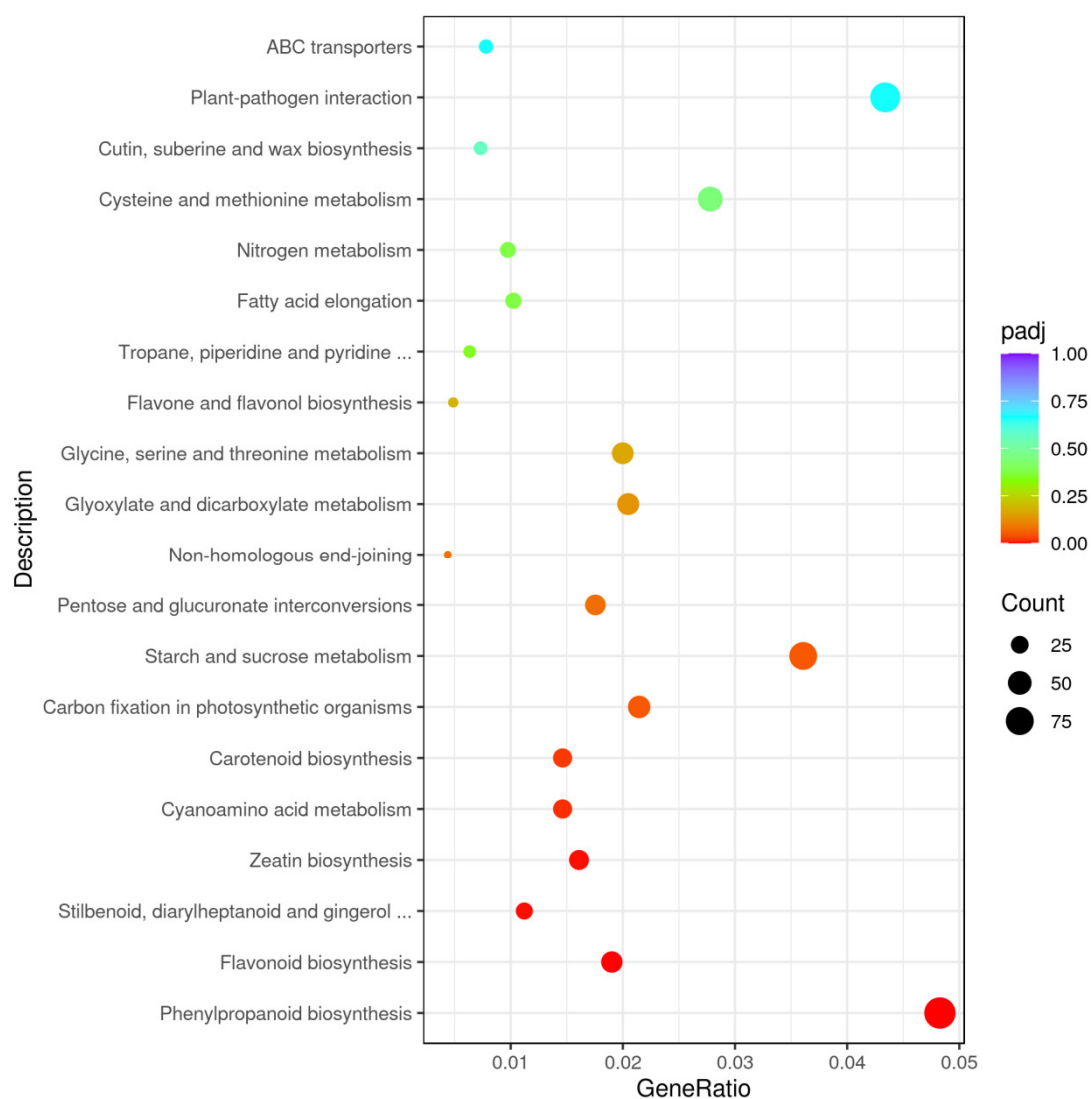


Figure S3. KEGG pathway enrichment analysis of differentially expressed genes (DEGs) in *rSmSPL2*-OE2.

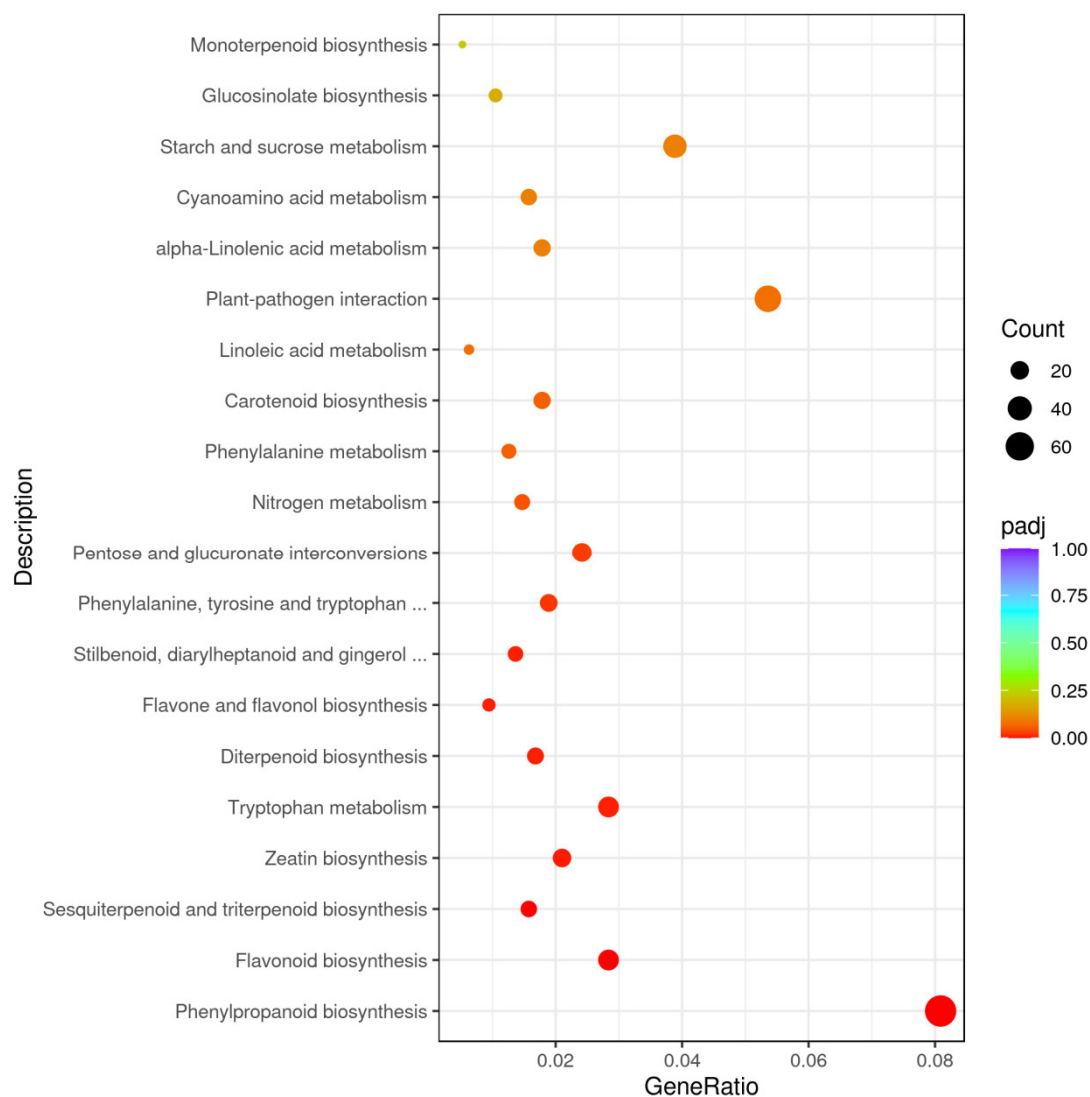


Figure S4. KEGG pathway enrichment analysis of differentially expressed genes (DEGs) in *rSmSPL2*-OE7.

Table S1. List of primers used in the study.

Primers used for vector construction	
<i>SmSPL2</i> -F	ATGAGCCACTTTATGGAGAT
<i>rSmSPL2</i> -A-F	GCTCCGAACGCCCAATTTTTGCCAGGTCGAGGGCTGCAACGTT
<i>rSmSPL2</i> -A-R	CTCGACCTGGCAAAAAATTGGGGCGTTCGGAGCAGATGATTTAGT
<i>rSmSPL2</i> -B-F	TATCGTCGCGCCCTATCACTCCTATCT AGCAATTCCTGGGATTTCG
<i>rSmSPL2</i> -B-R	ATTGCTAGATAGGAGTGATAGGGCGCGACGATATTCTGGTGCTGC
<i>SmSPL2</i> -R	TCAGTTCAATATATTGGAATAGAA
RT- <i>SmSPL2</i> -F	CATTCAAAGTGCCCAAGGT
RT- <i>SmSPL2</i> -R	ATCAGGTGGGGGATTGTTCA
RT- <i>SmUbiquitin</i> -F	ACCCTCACGGGGAAGACCATC
RT- <i>SmUbiquitin</i> -R	ACCACGGAGACGGAGGACAAG
Pro <i>SmSPL2</i> -F	CCTCCTTTTCTTTACTGGGTAA
Pro <i>SmSPL2</i> -R	AAAAGGAGTAAAGAAGTAAATGCAC
RT - <i>TAT1</i> - F	CGAGCAGGGATGGGAGGTTG

RT - <i>TAT1</i> - R	GCCTCTTGGCTGTCTCAGCA
RT - <i>PAL1</i> - F	GATAGCGGAGTGCAGGTCGTAC
RT - <i>PAL1</i> - F	CGAACTAGCAGATTGGCAGAGG
RT - <i>C4H1</i> - F	CCAGGAGTCCAAATAACAGAGCCG
RT - <i>C4H1</i> - R	GCCACCAAGCGTTCACCAAGAT
RT - <i>4CL1</i> - F	TCACCCATGCCGATTTCGAG
RT - <i>4CL1</i> - R	AGATCGCGCCGATGAAGGAG
RT - <i>RAS1</i> - F	CCAAAGTCAATTATGCCAAGGG
RT - <i>RAS1</i> - R	GTCGGATAGGTGGTGCTCGT
RT - <i>CYP98A14</i> - F	CCAATCCTACGGCCCCGATCC
RT - <i>CYP98A14</i> - R	GCCGTCTTCTGCTGAGCTTGA
<i>SmSPL2</i> - pGADT7 -F	TCCCCCGGGATGAGCCACTTTATGGAGAT
<i>SmSPL2</i> - pGADT7 -R	CGAGCTCTCAGTTCAATATATTGGAATAGAA
<i>SmSPL2</i> - 62sk-F	TCCCCCGGGATGAGCCACTTTATGGAGAT
<i>SmSPL2</i> - 62sk-R	GGGGTACCTCAGTTCAATATATTGGAATAGAA

Table S2. List of Gene ID used in the study.

Gene ID*	
EVM0027081	<i>TAT1</i>
EVM0018793	<i>TAT2</i>
EVM0025031	<i>TAT3</i>
EVM0015799	<i>HPPR1</i>
EVM0011757	<i>HPPR2</i>
EVM0015799	<i>HPPR3</i>
EVM0011907	<i>PAL1</i>
EVM0024933	<i>PAL2</i>
EVM0011707	<i>PAL3</i>
EVM0008504	<i>C4H1</i>
EVM0027474	<i>4CL1</i>
EVM0010662	<i>4CL2</i>
EVM0003044	<i>4CL3</i>
EVM0012984	<i>4CL4</i>
EVM0010773	<i>4CL5</i>
EVM0021739	<i>4CL6</i>
EVM0025441	<i>4CL7</i>
EVM0016577	<i>RAS1</i>
EVM0004296	<i>RAS2</i>
EVM0012270	<i>RAS3</i>
EVM0020785	<i>CYP98A14</i>
EVM0008588	<i>IPT1</i>
EVM0027273	<i>IPT2</i>
EVM0025311	<i>CYP735A1</i>

EVM0019778	CYP735A2
EVM0007859	LOG1
EVM0012385	LOG2
EVM0022301	LOG3
EVM0003936	LOG6
EVM0017980	AHP1
EVM0016109	AHP2
EVM0011500	B-RR1
EVM0015281	B-RR2
EVM0008754	ARR1
EVM0011715	ARR2
EVM0010278	ARR3
EVM0007962	ARR4
EVM0025386	TAA1
EVM0018350	TAA2
EVM0013469	A1M1
EVM0020376	AAO1
EVM0006475	IAA1
EVM0010879	IAA3
EVM0025242	IAA9
EVM0026407	IAA12
EVM0010171	IAA19
EVM0009395	IAA21
EVM0004349	IAA23
EVM0009359	GH3.1
EVM0004989	GH3.2
EVM0001145	GH3.3
EVM0007471	GH3.4
EVM0024946	GH3.5
EVM0026618	GH3.6
EVM0018330	GH3.8
EVM0017956	SAUR
