

1 **Figure S1.** Nucleotide sequence of the *VaSTS11d* transgene, 135-nt intron is highlighted with an underscore and a thick font.

5'-ATGGCGTCTGTGGAGGAAATTAGAAATGCTCAGCGTGCCAAGGGTCCGGCCACCGTTCTAGCCATTGGCACAGCTACCCCGGACAACGTGTCTGTACCAGTCTGATTCGCTGATTACTATTTTCGGG
TCACTAAGAGCGAGCACATGACCGAGCTCAAGAAGAAGTTCAACCGCATTTGT**AAGTCTAATTTTAACATCCTTTTCATACATATAATTATGTATACATATACTCACTTGAACAATATTGATCATCTTGA**
ACAATCAAACCTGGCTCCTTGAGCTAACATATTAGTATTATTAATAATTTATATACAGGTGATAAATCAATGATCAAGAAGCGTTATAGTCATTTGACCGAAGAAATGCTTGAGGAGCACCCAAACATC
GGTGCTTATATGGCTCCATCTCTTAACATACGTCAAGAGATTATTACTGCTGAGGTACCCAAGCTTGTAAGGAAGCGGCATTGAAGGCTCTTAAAGAGTGGGGTCAACCCAAATCCAAGATTACCCAT
CTTGATTTTTGTACAACCTCGGGTGTAGAAATGCCGGTGCCGACTATAAACTAGCTAATCTCCTAGGCCCTTGAAACATCAGTCAAAAGAGTAATGTTGTACCATCAAGGGTGCTATGCAGGTGGAAC
GTCCTTCGAACCGCTAAGGATCTTGCTGAGAATAATGCAGGAGCACGGGTTCTCGTGGTGTGCTCTGAGATCACCGTTGTTACATTCCGTGGGCCTTCTGAAATTGCTTTGGACTCTTTAGTTGGCCAAG
CCCTTTTGGGGATGGTTCTGCAGCTGTAATTGTTGGATCAGATCCAGATCTCTCGATTGAACGACCACTCTCCAGCTAGTCTCGGCGGCCCAAACATTCATCCCAATACCCAAGGTGCTATTGCAGG
CAACTTACGTGAAGTGGGTCTCACCTTTCAATTTATGGCCTAATGTGCCAATTTGACCTCCGAAAATATTGAGAAATGTTTGACTCAGGCTTTTGACCAATTGGAATCAGCGATTGGAATTCCTTATTTT
GGATTGCTCATCCAGGTGGCCGAGCTATTCTTGATGCAGTTGAAGCAAAATTGAGTTTGGATAAAACAAAACCTTAAAGCAACAAGACATGTTCTAAGTGAATATGGGAACATGTCAAGTGCTTGTGTCT
TGTTTATTATGGACGAGATGAGAAAGAAATCGTTGAAGGAACAAAAACAACAACAGGTGAAGGATTGATTGGGGCGTCTGTTTGGCTTTGGACCAGGCCTAACCATCGAGACTGTTGTCCTCCAC
AGTATTCCTAGGGATTCCAATTGA-3'

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3 **Table S1.** The content of individual stilbenes (mg per g of the dry weight (DW)) in the transgenic cell lines of *Vitis amurensis* transformed with *VaSTS11d* or *VaSTS11c*
4 gene transcripts.

Cell lines	Overexpressed <i>STS</i> transcript	<i>t</i> -resveratrol diglucoside	<i>t</i> -piceid	<i>cis</i> -piceid	<i>t</i> -piceatannol	<i>t</i> -resveratrol	<i>cis</i> -resveratrol	ε-viniferin	δ-viniferin
VC	-	0.23 ±0.12 ^{ab}	0.11 ±0.09 ^{ab}	0.01 ±0.01 ^a	0 ^a	0.55 ±0.36 ^d	0.01 ±0.01 ^a	0.02 ±0.01 ^c	0.34 ±0.21 ^c
11d-1	<i>VaSTS11d</i>	0.15 ±0.04 ^{ab}	0.13 ±0.04 ^a	0 ^a	0.01 ±0.01 ^a	3.25 ±1.14 ^{bc}	0.01 ±0.01 ^a	0.05 ±0.02 ^c	0.13 ±0.03 ^{bc}
11d-2		0.33 ±0.15 ^a	0.11 ±0.04 ^{ab}	0 ^a	0.01 ±0.01 ^a	7.69 ±1.04 ^a	0.01 ±0.01 ^a	0.10 ±0.02 ^c	0.18 ±0.07 ^c
11d-3		0.35 ±0.15 ^a	0.10 ±0.04 ^{ab}	0 ^a	0.01 ±0.01 ^a	6.52 ±1.07 ^a	0.01 ±0.01 ^a	0.10 ±0.03 ^c	0.18 ±0.06 ^c
11c-1	<i>VaSTS11c</i>	0.30 ±0.07 ^{ab}	0.06 ±0.02 ^{ab}	0.01 ±0.01 ^a	0.01 ±0.01 ^a	1.83 ±0.93 ^{cd}	0.01 ±0.01 ^a	0.02 ±0.01 ^b	0.08 ±0.02 ^b
11c-2		0.11 ±0.05 ^b	0.04 ±0.02 ^b	0.01 ±0.01 ^a	0.01 ±0.01 ^a	2.92 ±0.47 ^{bc}	0.01 ±0.01 ^a	0.49 ±0.07 ^b	0.77 ±0.05 ^b
11c-3		0.09 ±0.05 ^b	0.04 ±0.02 ^b	0.01 ±0.01 ^a	0.01 ±0.01 ^a	2.42 ±0.42 ^{bc}	0.01 ±0.01 ^a	0.04 ±0.01 ^a	0.07 ±0.02 ^a

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6 VC – control cell line of *V. amurensis* transformed with the vector harboring only the *npHII* selective marker; 11d-1, 2, 3 – *V. amurensis* cell lines transformed with the *VaSTS11d*
7 transgene; 11c-1, 2, 3 – *V. amurensis* cell lines transformed with the *VaSTS11c* transgene. The callus tissue samples were harvested from the 35-day old cell cultures. Means followed by the same letter were not different using Student's t test, where $p < 0.05$ was considered to be statistically significant.

8 **Table S2.** Primers used for amplification of *Arabidopsis thaliana* and *Vitis amurensis* cDNAs in PCR.

cDNA	Primers names	Primers sequences, 5'-3'
Primers for obtaining of the full <i>VaSTS11</i> cDNA and generation the construction for plant cell transformation		
Full <i>VaSTS11d</i> and <i>VaSTS11c</i> cDNA obtaining	VaSTS11-nachS VaSTS11-KonA	5'ATGGCGTCTGTGGAGGAAA, 5'TCAATTGGAATCCCTAGGAA
Overexpression of <i>VaSTS11d</i> and <i>VaSTS11c</i>	VaSTS11-Xho-pSATs VaSTS11-Bam-pSATa	5'GCTCCTCGAGATGGCGTCTGTGGAGGAAAT, 5'TCGAGGATCCTCAATTGGAATCCCTAGGAA
Primers for real-time PCRs in <i>A. thaliana</i> plants and grapevine <i>V. amurensis</i> cell cultures		
Overexpression of <i>VaSTS11d</i> and <i>VaSTS11c</i> transgenes	VaSTS11-Kon-S pSAT-term-A	5'TTCCTAGGGATTCCAATTGA, 5'GAG AGA CTG GTG ATT TTT GCG
Total overexpression of <i>VaSTS11</i> gene	VaSTS11-real-S2 VaSTS11-Kon-A	5'TGATGCAGTTGAAGCAAAATTGAGT, 5'TCAATTGGAATCCCTAGGAA
<i>VaActin1</i> (DQ517935)	<i>VaActin</i> -realS <i>VaActin</i> -realA	5'GTATTGTGCTGGATTCTGGTGA, 5'GCAAGGTCAAGACGAAGGATAG
<i>VaGAPDH</i> (AM437491)	<i>VaGAPDH</i> -realS <i>VaGAPDH</i> -realA	5'CACTGAAGATGATGTTGTTTCC, 5'GCTATTCCAGCCTTGGCAT
<i>AtEF</i> (XM_002864638)	AtEF-1a-OT-s AtEF-1a-OT-a	5'TGCCCCTGGACATCGTGATT, 5'CTTGGGCTCGTTGATCTGGT
<i>AtGAPDH</i> (NM_111283.4)	AtGapdh-Real-s AtGapdh-Real-a	5'TTGGTGACAACAGGTCAAGCA, 5'AAACTTGTCGCTCAATGCAAT
Primers for semiquantitative RT-PCR		
<i>nptII</i> (AY818371)	NPTII-SER-S NPTII-KON-A	5'ATTCGACCACCAAGCGAAAC, 5'TCAGAAGAAGCTCGTCAAGAA
<i>VirB2</i> (KY000054)	VIRB2-S VIRB2-A	5'ATGCGATGCTTTGAAAGATACCG, 5'TTAGCCACCTCCAGTCAGCG
Primers for bisulfite sequencing		
<i>VaSTS11d</i> and <i>VaSTS11c</i> cDNA	VaSTS11-Met-S2 VaSTS11-Met-A2	5'TCTCACCTTTCATTTATRRC, 5'TYAATTGGAATYYYTAGG

