

Supplementary Materials

Table S1. Primers of this study.

Function	Gene name	Forward primer sequences (5'-3')	Reverse primer sequences (5'-3')
qRT-PCR	<i>VvERF003</i>	CTCGGACCAACTTCACCTACAAT	CGATACTCACCTGGCAATTCTT
	<i>VvPAL</i>	GGAACGGGACGGAATCTT	GAGGCAAGCAAGGGTAATG
	<i>VvCHI1</i>	ATGTCTCCAGTGCCGTCAGTC	CCACAGTCTTGCCCTTCCA
	<i>VvCHI2</i>	AGTTGAATGCTGTCGGCTTGA	CATGTCCTTAGTTGGTTTGCTG
	<i>VvF3'H</i>	TGAACATCGGGGAGCAAAC	TCGGGCCAGACTCGAATAA
	<i>VvF3H2</i>	AGGCAACCGTGATCCTCTGA	CAATGGCTTGGACTCTAACTT
	<i>VvF3H5</i>	ATTATCTGAGCAATGGGAGGTTG	TCCTCAATGCCTTTCGGTTTC
	<i>VvFLS3</i>	AGAGGGGCTCGGTTTGGAA	AGTAGGGTGAGGGCGGACAT
	<i>VvFLS1</i>	CCGCCATTACCATTCTTATCC	GCACCGCCTTGATTTTCC
	<i>VvEIN3</i>	GTAATCTTGAGTTTATGCCGTTCC	TCCATCTTGTGCCCTTGA
	<i>VvEIL1</i>	CCAGTGATTATGATGTTGAGGGTG	TGTTGTAGGGGCATTGAGTGT
	<i>VvEIN2</i>	GGTGGGTAACCTGCGATGG	GGTGCTGGTTCTTGCTGTG
Subcellular localization	<i>VvERF003</i>	GGGGTACCATGGCTGGACAA	CGCGGATCCCAAAAACCAAG
overexpression	<i>VvERF003</i>	GCTCTAGAATGGCTGGACAACAACA	GGACTAGTTTACACAAAACCAAGCTCAAT
Yeast one-hybrid	<i>VvERF003</i>	GGAATTCATGGCTGGACAACAAC	<i>CGCGGATCCTT</i> ACACAAAACCAA
	<i>VvCHI1</i>	CCCAAGCTTTGCCACCAACCTATTG	GGGGTACCATTGATGTCTGCCTCA
	<i>VvCHI2</i>	CCCAAGCTTTTCCGGTTCACT	GGGGTACCCGTTCAATTCACGA
	<i>VvF3H2</i>	CCCAAGCTTCGACTTCCATTCTCG	GGGGTACCGCTCTTGATTTCACT
	<i>VvFLS1</i>	<i>CCCAAGCTT</i> GCATTAATAAGATCGC	<i>GCGGTACCT</i> GAATCACAGGACGA
Dual-luciferase	<i>VvCHI1</i>	ACTCACTATAGGGCGAATTGGGTACCATCGG TATACACCAGCCTCA	GCGGCCGCTCTAGAACTAGTGGATCCTCGAT GTGATGTCTGCCTCA
	<i>VvFLS1</i>	ACTCACTATAGGGCGAATTGGGTACCGGTTG CAAGAGAAAGCTAAGTG	GCGGCCGCTCTAGAACTAGTGGATCCATGA ATCACAGGACGAGCAG

Table S2. Differentially expressed transcription factors.

Gene name	Gene id	Mean TPM		log2FoldChange	result	Mean TPM		log2FoldChange	result
		(ETH1)	(CK1)			(1-MCP1)	(CK1)		
MYB	Vitvi01g01024	2.1938675	1.074173	1.030250032	up	1.750298333	1.074173	0.704374482	-
	Vitvi19g01742	9.22882	4.572308333	1.013223501	up	6.488289	4.572308333	0.504915386	-
	Vitvi14g01750	9.5530025	1.106576667	3.109850834	up	1.181958667	1.106576667	0.095076177	-
	Vitvi01g00302	3.7838385	0.717581333	2.398636247	up	1.734524	0.717581333	1.273325536	-
	Vitvi15g04655	1.9763025	0.526735333	1.907653644	up	0.947058	0.526735333	0.846374544	-
	Vitvi07g00393	35.672939	13.64545367	1.38640972	up	19.26097	13.64545367	0.49726	-
	Vitvi07g00455	7.1968125	2.942857	1.290140632	up	3.592181667	2.942857	0.287642873	-
	Vitvi07g03055	1.3035185	0.269322667	2.275003498	up	0.356939	0.269322667	0.406341888	-
	Vitvi16g00305	0.4645875	0.0001	12.18173462	up	0.028343	0.0001	8.14684866	-
bHLH	Vitvi08g00719	1.916243	0.0001	14.2259929	up	0.0001	0.0001	0	-
	Vitvi07g02613	0.813087	0.043185	4.234807534	up	0.059280333	0.043185	0.45702327	-
	Vitvi18g00567	0.9856055	0.107282333	3.199597786	up	0.056529667	0.107282333	-0.924332425	-
	Vitvi14g04018	59.766052	18.86576233	1.663555847	up	35.650646	18.86576233	0.918157821	-
	Vitvi01g00232	1.804453	0.854050333	1.079168564	up	0.767647667	0.854050333	-0.1538768	-
AP2/ERF	Vitvi09g00837	20.3449115	8.857395333	1.199713587	up	12.96508967	8.857395333	0.549677766	-
	Vitvi01g01826	6.10923	2.674280667	1.191839671	up	2.15429	2.674280667	-0.311938413	-
	Vitvi11g01231	0.981251	0.219942	2.157499092	up	0.467785333	0.219942	1.088723502	-
	Vitvi05g00715	1.255084	0.326953667	1.940625816	up	0.484963667	0.326953667	0.568790462	-
NAC	Vitvi10g00437	5.873045	2.059422667	1.511868739	up	3.151220333	2.059422667	0.613670679	-
	Vitvi14g01985	30.2874585	14.08996933	1.104052051	up	20.40660133	14.08996933	0.534367454	-

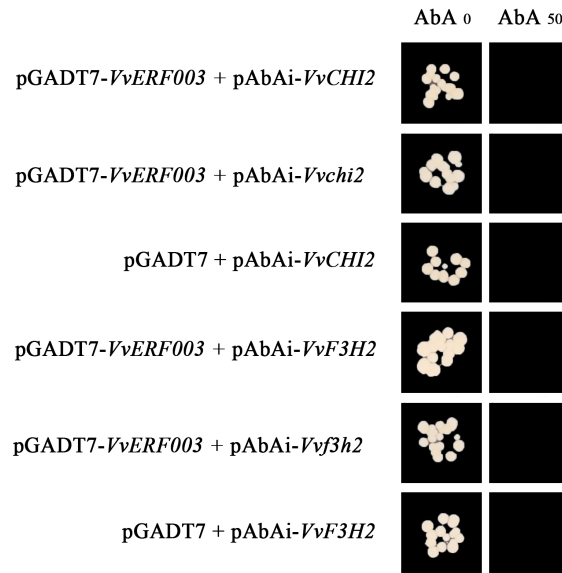


Figure S1. Y1H verified the interaction between VvERF003 and the promoters of *VvCHI2* and *VvF3H2*.