

Supplementary Tables

Table S1. Predicted *cis*-acting elements of the PaAGO5a gene promoter in *P. aphrodite* subsp. *formosana*.

Site Name	Sequence	Strand	Position	Number	Function
3-AF1 binding site	TAGGAGAGGAA	-	-740	1	Light responsive element
ABRE	TACGGTC TACGTGTC ACGTG TACGGTC CACGTG	+ + + - -	-467, +1103 +1313 -79, -479, +1311 +1122 -80, -480	9	<i>Cis</i> -acting element involved in the abscisic acid responsiveness
ABRE3a	TACGTG	+	+1313	1	<i>Cis</i> -acting element involved in the abscisic acid responsiveness
ACE	GATACGTATG	+	-309, +2108	2	<i>Cis</i> -acting element involved in light responsiveness
ARE	AAACCA	-	-126, -133, +1731	3	<i>Cis</i> -acting regulatory element essential for the anaerobic induction
AT-rich element	ATAGAAATCAA	-	+1583	1	Binding site of AT-rich DNA binding protein (ATBP-1)
BOX-4	ATTAAT	-	-651	1	Part of a conserved DNA module involved in light responsiveness
CAAT-box	CAAT CAAAT CAAT CAAAT TGCCAAC	+ + - - -	-9, -100, -426, -232, -753 -340, -527, -643, -659, +851 -329, -621, -652, -797 -397, -272, -530, -690 +816	19	Common <i>cis</i> -acting element in promoter and enhancer regions
CGTCA-motif	CGTCA	+	+2337	1	<i>Cis</i> -acting regulatory element involved in MeJA-responsiveness
DRE	GCCGAC GCCGAC	+ -	+2755 +1980	2	Regulates cold- and dehydration-responsiveness

G-Box	CACGTG CACGTGAAA	- -	-80, -480 -83	3	<i>Cis</i> -acting regulatory element involved in light responsiveness
GATA-motif	GATAGGA GATAGGA	+ -	-282 +1782	2	Part of a light responsive element
GT1--motif	GGTTAAT	-	-2090	1	Light responsive element
LTR	CCGAAA	-	-784, -228	2	<i>Cis</i> -acting element involved in low-temperature responsiveness
MRE	AACCTAA	-	-600	1	MYB binding site involved in light responsiveness
MYB	CAACCA CAACCA	+ -	+2145, +2293, +2483 +860, +2731	5	MYB binding site involved in drought -inducibility
MYC	CATGTG CATTTG	+ -	+877 -176, +1362	3	MYB binding site involved in chilling-inducibility
STRE	AGGGG AGGGG	+ -	+2216, +2404 -549, +2472	4	Stress response element
TATA-box	ATTATA TATAA TATA TACAAAA TATTTAAA TATTTAAA	+ - + + - +	-422 -415, -467, -620, -795 -422, -27, -291, -322 -560 -710 -150	12	Core promoter element around -30 of transcription start
TCT-motif	TCTTAC	+	-228	1	Part of a light responsive element
TGA-element	AACGAC	+ -	+1600 -757	2	Auxin-responsive element
TGACG-motif	TGACG	-	+2337	1	<i>Cis</i> -acting regulatory element involved in MeJA responsiveness
W-box	TTGACC	-	+2637	1	
WRE3	CCACCT	+	-502, +1076	2	
WUN-motif	AAATTACT	+	+2523	1	
as-1	TGACG	-	+2337	1	

Table S2. Predicted *cis*-acting elements of the PaAGO5b gene promoter in *P. aphrodite* subsp. *formosana*.

Site Name	Sequence	Strand	Position	Number	Function
AAGAA-motif	GAAAGAA	-	+638	1	Unknown function
ABRE	ACGTG	-	+939, +1062	3	<i>Cis</i> -acting element involved in abscisic acid responsiveness
	AACCCGG	+	+1276		
ABRE3a	TACGTG	-	+939	1	<i>Cis</i> -acting element involved in abscisic acid responsiveness
ARE	AAACCA	-	+309	2	<i>Cis</i> -acting regulatory element essential for anaerobic induction
	AAACCA	+	+1144		
BOX-4	ATTAAT	-	+244, +401	3	Part of a conserved DNA module involved in light-responsiveness
		+	+1524		
CAAT-box	CAAT	+	+255, +342, +503, +613, +737, +741, +798, +948, +1248, +1252, +1386, +1651, +1750, +1917	34	Common <i>cis</i> -acting element in promoter and enhancer regions
	CAAT	-	+142, +304, +679, +699, +1403, +1515, +1764, +1786, +1817, +1959		
	CAAAT	+	+292, +483, +515, +762, +771, +1705, +1738, +1766		
	CAAAT	-	+1735, +1744		
CARE	CAACTCAC	+	+1763	1	Unknown function
CGTCA-motif	CGTCA	-	+229	1	<i>Cis</i> -acting regulatory element involved in MeJA-responsiveness
G-Box	CACGTT	+	+1062	1	<i>Cis</i> -acting regulatory element involved in light responsiveness
G-box	CACGAC	+	+1123	2	<i>Cis</i> -acting regulatory element involved in light responsiveness
	TACGTG	-	+939		
GARE-motif	TCTGTTG	+	+1005	1	Gibberellin-responsive element

GATA-motif	AAGATAAGATG	+	+1556	1	Part of a light responsive element
GC-motif	CCCCCG	+	-56	1	Enhancer-like element involved in anoxic specific inducibility
GCN4-motif	TGAGTCA TGAGTCA	+ -	+1087, +1638 +1569	3	<i>Cis</i> -regulatory element involved in endosperm expression
GT1-motif	TTAACC	-	+1968	1	Light responsive element
LTR	CCGAAA CCGAAA	+ -	+174, +331, +1226 +1205	4	<i>Cis</i> -acting element involved in low-temperature responsiveness
MYB	CAACAG CAACAG TAACCA CAACCA CAACCA	+ - + + -	+1688 +1004 +901 +1140, +584 +1625	5	MYB binding site involved in drought - inducibility
MYC	CATGTG	+	+967	1	
P-box	CCTTTTG	+	+1501	1	Gibberellin-responsive element
STRE	AGGGG	+	+1905	1	Stress response element
TATA-box	TATA TATATA TACAAAA TTTAAATA	+ + + -	+352, +659, +746, +814, - 1409, +1588 +657 +597, +669 -34	10	Core promoter element around -30 of transcription start
TCA	TCATCTTCAT	-	+206, +1293	2	Unknown
TCT-motif	GTAAGA	-	+1113	1	Part of a light responsive element
TGA-element	AACGAC AACGAC	+ -	-41 +1787	2	Auxin-responsive element
TGACG-motif	TGACG	+	+229	1	<i>Cis</i> -acting regulatory element involved in MeJA-responsiveness
as-1	TGACG	+	+229	1	
Circadian	CAAAGATATC	+	-1384	1	<i>Cis</i> -acting regulatory element involved in circadian control

Table S3. Predicted *cis*-acting elements of the PaAGO5c gene promoter in *P. aphrodite* subsp. *formosana*.

Site Name	Sequence	Strand	Position	Number	Function
AAGAA-motif	GTAAAGAAA	+	+368	1	Unknown function
ACE	CTAACGTATT	-	-107	1	<i>Cis</i> -acting element involved in light-responsiveness
AE-box	AGAAACAA AGAAACTT	- -	-509, -1444	2	Part of a module for light response
AT1-motif	AATTATTTTTTATT	+	-950	1	Part of a light responsive module
ATC-motif	AGTAATCT	+	-1615	1	Part of a conserved DNA module involved in light-responsiveness
Box 4	ATTAAT	+	-572, -733, -961, -1362	4	Part of a conserved DNA module involved in light-responsiveness
CAAT-box	CAAT CAAT CAAAT CAAAT	+ - + -	-48, -116, -392, -35, -150, -215, -267, -414, -568, +766, -780, +857, +872, +1349, +1360, +1476, +1493, +1723, +1739, -486, -517, -579, -168, -343, -604, +998, +1790 -206, -524, -202, -221, -431, -451, -473, +795, +880, +1055, +1344 +1270, +1369, +1777	41	Common <i>cis</i> -acting element in promoter and enhancer regions
CCAAT-box	CAACGG	+	-155	1	MYBHv1 binding site
CTAG-motif	ACTAGCAGAA	+	-547	1	Unknown function

G-box	CACGAC	-	-627	1	<i>Cis</i> -acting regulatory element involved in light-responsiveness
GARE-motif	TCTGTTG	-	-19	1	Gibberellin-responsive element
GCN4_motif	TGAGTCA	-	-874	1	<i>Cis</i> -regulatory element involved in endosperm expression
GT1-motif	TTAACC	+	-902	1	Light-responsive element
MSA-like	TCCAACGGATA	+	-112	1	<i>Cis</i> -acting element involved in cell cycle regulation
TATA-box	TATA	+	-98,-126,-147,-183, -335,-81, -88, -138, -196,-321,-381,-41, -526, -588, -664, +671, +715, +756, +809,+1096,+1425, +1531,+1562,+1573, +1698, +1752	26	Core promoter element around -30 of transcription start
TC-rich repeats	ATTCTCTAAC	-	-275, -372, 1155, -1542,	4	<i>Cis</i> -acting element involved in defense and stress responsiveness
TCT-motif	TCTTAC	+	-1155	1	Part of a light responsive element
chs-CMA1a	TTACTTAA	+	-1327	1	Part of a light responsive element

Table S4. Primers used for the cloning of *pPaAGO5a*, *pPaAGO5b* and *pPaAGO5c*.

Primer name	Primer sequence (5'–3')
PaAGO5a_Promo-F	GCAAGCTTGGCAGCCGACGACAGCATTGG
PaAGO5a_Promo-R	GCCCATGGGTGTGTGGTTCGAAGACTTTG
PaAGO5b_Promo-F	GCTCTAGAGTGCATTGCATATGTTTTGACA
PaAGO5b_Promo-R	GCCCATGGCTAACGAATCTTCCAGACTAC
PaAGO5c_Promo-F	GCCTGCAGGGCCTAGCTACACGAGATGAC
PaAGO5c_Promo-R	GCCCATGGATCAACTTCCCAAAGTATG

Letters with underline () indicate the DNA sequence of the restriction sites.

Table S5. Primers used for the screening of transgenic *N. benthamiana* plants.

Primer name	Primer sequence (5'–3')
GUS-F	GGCGTCTTCGACCTCAATGGC
GUS-R	GATTCATGCCATCACGCAGCG
Hyg-F	GCCATGTAGTGTATTGACCG
Hyg-R	CTTCGCCCTCCGAGAGCTG

Table S6. Primers used for the cloning of *pPaAGO5b* 5'-deletion constructs.

Primer name	Primer sequence (5'–3')
PaAGO5b_2029-F	GCTCTAGAGTGCATTGCATATGTTTTGACA
PaAGO5b_1782-F	GCTCTAGAGTTTCATGCAAATCTTGT
PaAGO5b_1582-F	GCTCTAGATGAAATATATTATTGGAA
PaAGO5b_1182-F	GCTCTAGAATACTCCGTTTAGACTAC
PaAGO5b_941-F	GCTCTAGAAAACACGTAATTCAGAGGACAC
PaAGO5b_582-F	GCTCTAGACAAATTAGGACGCAATAC
PaAGO5b_349-F	GCTCTAGACATCGACTAGGTGTAGGG
PaAGO5b_235-F	GCTCTAGAGTGACGAGAGCGCCATATG
PaAGO5b_109-F	GCTCTAGACCCTTACCACTCAGACAT
PaAGO5b_88-F	GCTCTAGATCCGCCTTCCCCCGTAG
PaAGO5b_65-F	GCTCTAGATGAAACGACGCTTCGCTG

PaAGO5b_Promo-R	G <u>CCCATGGCT</u> AACGAATCTTCCAGACTAC
-----------------	--

Letters with underline indicate () the DNA sequence of the restriction sites.

Table S7. Primers used for the cloning of viral genes.

Primer name	Primer sequence (5'–3')
CymMV_CP-F	GC <u>CTGCAGAT</u> GGGAGAGCCCACTCCAAC
CymMV_CP-R	G <u>CGAGCTCT</u> TATTTCAGTAGGGGGTGCAG
CymMV_TGBp1-F	GCTCTAGA <u>ATGGATTACAAGGACGACGATGACAAG</u> GAGCTAGCGTACTTAGTTAGA
CymMV_TGBp1-R	G <u>CGAGCTCT</u> CAGGTGGTGGAACTAAACCTGG
ORSV_CP-F	GCTCTAGAATGTCTTACACTATTACAGAC
ORSV_CP-R	G <u>CGAGCTCT</u> TAGGAAGAGGTCCAAGTAAG
ORSV_MP-F	GCCTGCAG <u>ATGGATTACAAGGACGACGATGACAAG</u> GCTCTAGTACTAAGGGATAGC
ORSV_MP-R	G <u>CGAGCTCT</u> CAATACGAATCAGATTGTGC

Letters with underline indicate () the DNA sequence of the restriction sites. Green color indicates sequence of FLAG tag antibody.

Table S8. List of TFs selected for yeast one hybrid analysis.

ID (From <i>N.benthamina</i>)	TFs name
Niben101Scf07438g03001.1	NbMYB94
Niben101Scf07223g01008.1	DNA binding protein (REVEILLE8/LHY-CCA1-LIKE5 (RVE8/LCL5))
Niben101Scf02026g01002.1	Late elongated hypocotyl and circadian clock associated-1-like protein 1
Niben101Scf01908g01004.1	Myb-related protein 30 (NbMYB30)
Niben101Scf09590g03004.1	Circadian 1 (CIR1) transcription factor

Table S9. Primers used for the cloning of *N.benthamina* TFs.

Primer name	Primer sequence (5'–3')
NbMYB94_F	G <u>CGAATTCAT</u> GGGAAGACCACCTTGCTGT
NbMYB94_R	G <u>CGGATCCT</u> TATTTCAGGTGTAAAATTACC
NbREV8_F	G <u>CGGATCCAT</u> GAACTCAAACCTCTCCTTCC

NbREV8_R	GCCTCGAGTCAAGGCTTGGGCAAGCTTCT
NbLHY_F	GCGAATTCATGCAAGTGCCACACAACATATCC
NbLHY_R	GCGAGCTCTCAAATAGAAGCTTCTCCTTCC
NbMYB30_F	GCGAATTCATGGGAAGGCCTCCTTGTTGT
NbMYB30_R	GCGGATCCTTAAGTGAATATCATAGGAAG
NbCIR1_F	GCCCCGGGATGACTATACAGGATCAAAGC
NbCIR1_R	GCCTCGAGCTACAAGCATAACCGGGTTTCGC

Letters with underline indicate () the DNA sequence of the restriction sites.

Table S10. Primers used for the cloning of pEPFlag-NbMYB30 for transient expression and *NbMYB30* for VIGS.

Primer name	Primer sequence (5'–3')
NbMYB30_F_OE	GCCTGCAGATGGATTACAAGGACGACGATGACAAGGGAAG GCCACCTTGTTG
NbMYB30_R_OE	GCGAGCTCTCAAAGCCATTCCATGCCTATTC
NbMYB30_F_VIGS	GCGAATTCGTACAACCTGCTGATTTG
NbMYB30_R_VIGS	GCGGATCCTATATCTACTAGTACATATGC

Letters with underline indicate () the DNA sequence of the restriction sites. Green color indicates sequence of FLAG tag antibody.

Table S11. Primers used for the cloning of pCFlag-PaMYB30 for transient expression and pKFV_PaMYB30 for VIGS.

Primer name	Primer sequence (5'–3')
PaMYB30_F_OE	GCCTGCAGATGGATTACAAGGACGACGATGACAAGGGAAG ACCTCCTTGTTGTG
PaMYB30_R_OE	GCGAGCTCTCAATCCTGAAACAACCTCTGAAG
PaMYB30_F_VIGS	ATGTTAACGTCGTCTTGAAGGAGGAG
PaMYB30_R_VIGS	ATGTTAACAAAGCGGATGGAAGCAG

Letters with underline indicate () the DNA sequence of the restriction sites. Green color indicates sequence of FLAG tag antibody.

Table S12. Primers used for the qRT-PCR of TFs.

Primer name	Primer sequence (5'–3')
NbMYB94_F_qRT-PCR	CTGGAATACTCATCTGAG
NbMYB94_R_qRT-PCR	CAGAGAATCAGATTTG
NbREV8_F_qRT-PCR	GGTTGTGTCCCAAGTTG
NbREV8_R_qRT-PCR	GCGTCATCTTTTCGCAT
NbLHY_F_qRT-PCR	GCTCAAAAGTACTTCTT
NbLHY_R_qRT-PCR	GGTGGAAGGAAATTCAT
NbMYB30_F_qRT-PCR	CCTATAATTCTGATGTTTC
NbMYB30_R_qRT-PCR	GTTAAGGGTACTTCCGTC
NbCIR1_F_qRT-PCR	CGCGAAAGCTGGACCGA
NbCIR1_R_qRT-PCR	GGTTCCACTCTTCTGGAC
GUS_F_qRT-PCR	CACCGAGACCCGTGGC
GUS_R_qRT-PCR	CCGAAGCGGAGCACGA
PaMYB30_F_qRT-PCR	CTCATGGCTATATCCCCTG
PaMYB30_R_qRT-PCR	CAATTCGCTCTCCTTGAAC
NbNAC42_F_qRT-PCR	GAAGTGGAGGACAAC
NbNAC42_R_qRT-PCR	GAACCATGTCAAACC
NbZFP3_F_qRT-PCR	CAGAATCGTCACATG
NbZFP3_R_qRT-PCR	GGCAGCGGAGAAGAC
NbNPR1_F_qRT-PCR	CTGCAGATGTTGCTAAG
NbNPR1_R_qRT-PCR	CTCCTTTGGTTAAAAGGG
NbLOX2_F_qRT-PCR	ATATGTGCCAAGGGACGA
NbLOX2_R_qRT-PCR	CATAGAGTTTAAGTACATC
NbAOS2_F_qRT-PCR	GGTCTTCCGAAGGTTCTAG
NbAOS2_R_qRT-PCR	GCTTCGTCGCGCGAAATG
NbNCED3_F_qRT-PCR	CTCCACGGCCATTCTG
NbNCED3_R_qRT-PCR	GAAGGTCACCAGAAGACG
NbZEP_F_qRT-PCR	CCGCCAACCTTTAATTGG
NbZEP_R_qRT-PCR	GAGATGATATCCACAGG
PaNPR1_F_qRT-PCR	AAGGAGCAAGGCCAGCTGAT

PaNPR1_R_ qRT-PCR	TCTTCCGTCGCCCTACAGTAA
PaPR1_F_ qRT-PCR	GGATCATCGTCTTGCGATTT
PaPR1_R_ qRT-PCR	CCGCACAACGTGTTACATGCAT