

Supporting information figure legends

Figure S1. The expression patterns of *PePCF* genes in various organs and developmental stages of floral bud of *Phalaenopsis equestris* by real-time RT-PCR analysis. Quantification was normalized to *Actin4* for each organ. B1: stage 1 flower bud (0~1 mm); B2: stage 2 flower bud (1~2 mm); B3: stage 3 flower bud (2~5 mm); B4: stage 4 flower bud (5~10 mm). Error bars: \pm SD (n=3 each).

Figure S2. The expression patterns of *PePCF* genes in various developmental stages of ovule of *P. equestris* by real-time RT-PCR analysis. Quantification was normalized to *Actin4* for each organ. DAP, days after pollination. Error bars: \pm SD (n=3 each).

Figure S3. The expression patterns of *PeCIN* genes in various organs and developmental stages of floral bud of *P. equestris* by real-time RT-PCR analysis. Quantification was normalized to *Actin4* for each organ. B1: stage 1 flower bud (0~1 mm); B2: stage 2 flower bud (1~2 mm); B3: stage 3 flower bud (2~5 mm); B4: stage 4 flower bud (5~10 mm). Error bars: \pm SD (n=3 each).

Figure S4. The expression patterns of *PeCIN* genes in various developmental stages of ovule of *P. equestris* by real-time RT-PCR analysis. Quantification was normalized to *Actin4* for each organ. DAP, days after pollination. Error bars: \pm SD (n=3 each).

Figure S5. The expression patterns of *PePCF* genes in various organs and developmental stages of floral bud of *P. equestris* by real-time RT-PCR analysis. Quantification was normalized to *18S rRNA* for each organ. B1: stage 1 flower bud (0~1 mm); B2: stage 2 flower bud (1~2 mm); B3: stage 3 flower bud (2~5 mm); B4: stage 4 flower bud (5~10 mm). Error bars: \pm SD (n=3 each).

Figure S6. The expression patterns of *PePCF* genes in various developmental stages of ovule of *P. equestris* by real-time RT-PCR analysis. Quantification was normalized to *18S rRNA* for each organ. DAP, days after pollination. Error bars: \pm SD (n=3 each).

Figure S7. The expression patterns of *PeCIN* genes in various organs and developmental stages of floral bud of *P. equestris* by real-time RT-PCR analysis. Quantification was normalized to *18S rRNA* for each organ. B1: stage 1 flower bud (0~1 mm); B2: stage 2 flower bud (1~2 mm); B3: stage 3 flower bud (2~5 mm); B4: stage 4 flower bud (5~10 mm). Error bars: \pm SD (n=3 each).

Figure S8. The expression patterns of *PeCIN* genes in various developmental stages of ovule of *P. equestris* by real-time RT-PCR analysis. Quantification was normalized to *18S rRNA* for each organ. DAP, days after pollination. Error bars: \pm SD (n=3 each).

Figure S9. Heat map representation for the expression profiles of *PeTCP* genes. Expression patterns of (A) 11 *PePCF* genes and 9 *PeCIN* genes in various organs and developmental stages of floral bud; (B) 11 *PePCF* genes and 9 *PeCIN* genes in various developmental stages of ovule. *18S rRNA* was used as an internal control. The expression levels are represented by the color bar. Se: sepals; Pe: petals; Li: lip; Co: column; P: pedicel; F: floral stalk; L: leaf; R: root; B1: stage 1 flower bud (0~1 mm); B2: stage 2 flower bud (1~2 mm); B3: stage 3 flower bud (2~5 mm); B4: stage 4 flower bud (5~10 mm). DAP, days after pollination.

Figure S10. Analysis of protein interactions between TCP proteins.

Quantitative β -galactosidase activity assays measuring the interaction of the PePCF10 with PePCF10, PeCIN8 with PeCIN8 and PePCF10 with PeCIN8 proteins. PePCF10 and PeCIN8 were used as bait and expressed as a fusion to the GAL4-BD, as well as both of them were used as prey and expressed as fusion proteins to the GAL4-AD. White bars represent controls. Data are means \pm SD of three independent experiments.

Figure S11. Result of yeast two-hybrid assay between PePCF10 and Arabidopsis TCPs

(A) Matrix describing experimental design shown in (B) and (C). Number indicates gene number of Arabidopsis TCPs. For instance, “24” means TCP24. Red, blue, and light blue color indicate strong, intermediate, and weak positive, respectively. (B) Yeast grown on positive-control media lacking leucine and tryptophan. (C) Yeast grown on test media lacking histidine, leucine and tryptophan.

Table S1. Primers used in this study.

Primer Name	Sequence
Used for real-time RT-PCR analysis	
PePCF1 real-time RT-PCR F	5'-GTGGTAGTCAGCGATGGACAAG-3'
PePCF1 real-time RT-PCR R	5'-GCCGCCCTCCCTCATCAA-3'
PePCF2 real-time RT-PCR F	5'-TGGAGGGTTTATGCAGAGGATT-3'
PePCF2 real-time RT-PCR R	5'-TTGAAGCAAAGCTCATCTGACCTA-3'
PePCF3 real-time RT-PCR F	5'-CCTTCTTCGTTATGGACGTTCC-3'
PePCF3 real-time RT-PCR R	5'-CCACCCATAGCTCGACCAAA-3'
PePCF4 real-time RT-PCR F	5'-GCTGAGCCGGCCATCA-3'
PePCF4 real-time RT-PCR R	5'-ATTTTGAGAGITCCGTTGACATTG-3'
PePCF5 real-time RT-PCR F	5'-TATGGCCACCAGCTGTTCT-3'
PePCF5 real-time RT-PCR R	5'-AGGCCCTTCACCTGCTTCA-3'
PePCF6 real-time RT-PCR F	5'-GACAACGAGCTCATTGCAACA-3'
PePCF6 real-time RT-PCR R	5'-ATCGTTGCCGTCGAAGATG-3'
PePCF7 real-time RT-PCR F	5'-CAGTTTATATGCAGATGGGATATGG-3'
PePCF7 real-time RT-PCR R	5'-ACTTCATGGCCAGCTTACAA-3'
PePCF8 real-time RT-PCR F	5'-TCCTCGCCTTCTACTTTTCATTCTC-3'
PePCF8 real-time RT-PCR R	5'-TTTCCACGGACTCCTCCTT-3'
PePCF9 real-time RT-PCR F	5'-GAGCTCTGGTGCGAAGAAAGC-3'
PePCF9 real-time RT-PCR R	5'-TGATCGGCATCCTGATCCTT-3'
PePCF10 real-time RT-PCR F	5'-CCATCCACCAGCACAACA-3'
PePCF10 real-time RT-PCR R	5'-TTTGGTTGAGCTGCGTTTG-3'
PePCF11 real-time RT-PCR F	5'-CCCACCGGTACTTTCAGTTCA-3'
PePCF11 real-time RT-PCR R	5'-TCGGACATCGCGGAGAA-3'
PeCIN1 real-time RT-PCR F	5'-CAGGATGCTACAGCCCATCA-3'
PeCIN1 real-time RT-PCR R	5'-GTGGTCGATCCTGCGGTAAG-3'
PeCIN2 real-time RT-PCR F	5'-AGGCATTGGAAAGGAGAAGGAT-3'
PeCIN2 real-time RT-PCR R	5'-GAAGCACAGTGAAGGAGCTCTG-3'
PeCIN3 real-time RT-PCR F	5'-GGACCCCTTCAGTCCAATCCA-3'
PeCIN3 real-time RT-PCR R	5'-GAAAGGCACGTTTTCGACATC-3'
PeCIN4 real-time RT-PCR F	5'-AGCTCCGTCAGCATGTTTCT-3'
PeCIN4 real-time RT-PCR R	5'-GATTTTGCTGAGCTGAGATTCCA-3'
PeCIN5 real-time RT-PCR F	5'-GCATCCAACTCCAAGCACAT-3'
PeCIN5 real-time RT-PCR R	5'-TTAAAGTTGATGCTCGAAGAATTC-3'
PeCIN6 real-time RT-PCR F	5'-TTCCAAAGCGCCACAATG-3'
PeCIN6 real-time RT-PCR R	5'-CCGTGCTTCCACTCCTAAAAG-3'
PeCIN7 real-time RT-PCR F	5'-AAGGTGGCTCCGGAGTTTATG-3'
PeCIN7 real-time RT-PCR R	5'-GGGTCCCTCTGTGTGAAA-3'
PeCIN8 real-time RT-PCR F	5'-GGATGGAGACTATGGATCAGAA-3'
PeCIN8 real-time RT-PCR R	5'-CCTAGCAGGATGCGAAAAC-3'
PeCIN9 real-time RT-PCR F	5'-TGGCATACTTTTTTTCAGCAAT-3'
PeCIN9 real-time RT-PCR R	5'-TGATGAAGCAATAGAAAACCTTGA-3'
PeCYC1 real-time RT-PCR F	5'-CAAAGAGGACAACGGCTATGC-3'
PeCYC1 real-time RT-PCR R	5'-GAAAGAACCCTGGAGAAGAAAAAG-3'
PeCYC2 real-time RT-PCR F	5'-GCTAATGAGCTCTATTACAATGCCGAAAAGCAGG-3'
PeCYC2 real-time RT-PCR R	5'-CTCTCTGATTCTCTGGCACTAATTTAGACTGAAAC-3'
PeCYC3 real-time RT-PCR F	5'-GCTAGCGGCCTGAAGCAGGTGCTCCG-3'
PeCYC3 real-time RT-PCR R	5'-GGCTGAGAAATGGCCCTCGACCTCAAAAATCTAC-3'
Used for whole mount in situ hybridization	
PeCYC1FS	5'-TGCGGAAAACAATCCTCCAGAGCCATCACAATGC-3'
PeCYC1RS	5'-ATTGCATACGATCCATCGCCGCTGAGCTCCTCATG-3'
PeCYC2FS	5'-GCTAATGAGCTCTATTACAATGCCGAAAAGCAGG-3'
PeCYC2RS	5'-CTCTCTGATTCTCTGGCACTAATTTAGACTGAAAC-3'
Used for subcellular localization and BiFC assay	
PePCF10 attB1 F	5'-GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGGAAGGAGAAAACATTGGA-3'
PePCF10 attB2 R	5'-GGGGACCACCTTTGTACAAGAAAGCTGGGTCCGAGTCGCTGGTGCATC-3'
PeCIN8 attB1 F	5'-GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGAAATCCTCCGGCGAGAT-3'
PeCIN8 attB2 R	5'-GGGGACCACCTTTGTACAAGAAAGCTGGGTCTGTATACGAAGTACGAACTAGAGGAA-3'
Used for ectopic overexpression in <i>Arabidopsis</i>	
Full-PePCF10 F	5'-TCTAGAATGGAAGGAGAAAAACATTGGAGGAGGA-3'
Full-PePCF10 R	5'-TCTAGACTAGGAGTCGCTGGTGCATCCTGATC-3'
Full-PeCIN8 F	5'-CCCAGGATGAAATCCTCCGGCGAGATCTTG-3'
Full-PeCIN8 R	5'-CCCAGGCTAGTGATACGAACTAGAGGAACGAGAAGACA-3'
Used for ectopic repression in <i>Arabidopsis</i>	
PePCF10-EAR F	5'-CCCAGGATGGAAGGAGAAAACATTGGAGG-3'
PePCF10-EAR R	5'-CCCAGGAGTCCGCTGGTGCATCCTGATC-3'
PePCF10-SRDXG in R	5'-TAGATCCAGATCGGAGTCGCTGGT-3'
PeCIN8-EAR F	5'-CCCAGGATGAAATCCTCCGGCGAGATCTTG-3'
PeCIN8-EAR R	5'-CCCAGGATGATACGAACTAGAGGAACGAGAAGACAG-3'
PeCIN8-SRDXG in R	5'-GTTCTAGATCCAGATCGTGATACGAACTAGAG-3'
Used for Y2H	
PePCF10-Y2H F	5'-CGCTGCAGATGGAAGGAGAAAAACATTGGAGG-3'
PePCF10-Y2H R	5'-CGCTGCAGCTAGGAGTCGCTGGTGCATCG-3'
PeCIN8-Y2H F	5'-CCCAGGATGAAATCCTCCGGCGAGATCTTG-3'
PeCIN8-Y2H R	5'-CCCAGGCTAGTGATACGAACTAGAGGAACGAGAAGACA-3'

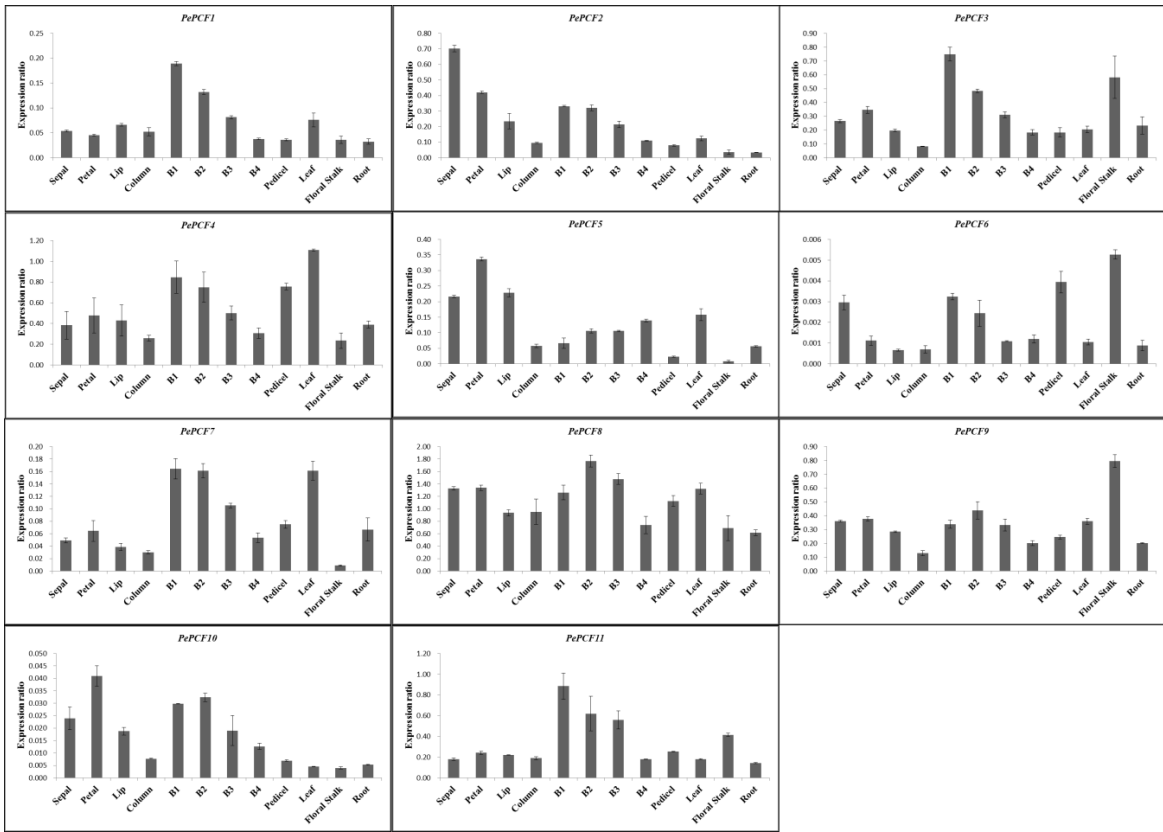


Figure S1

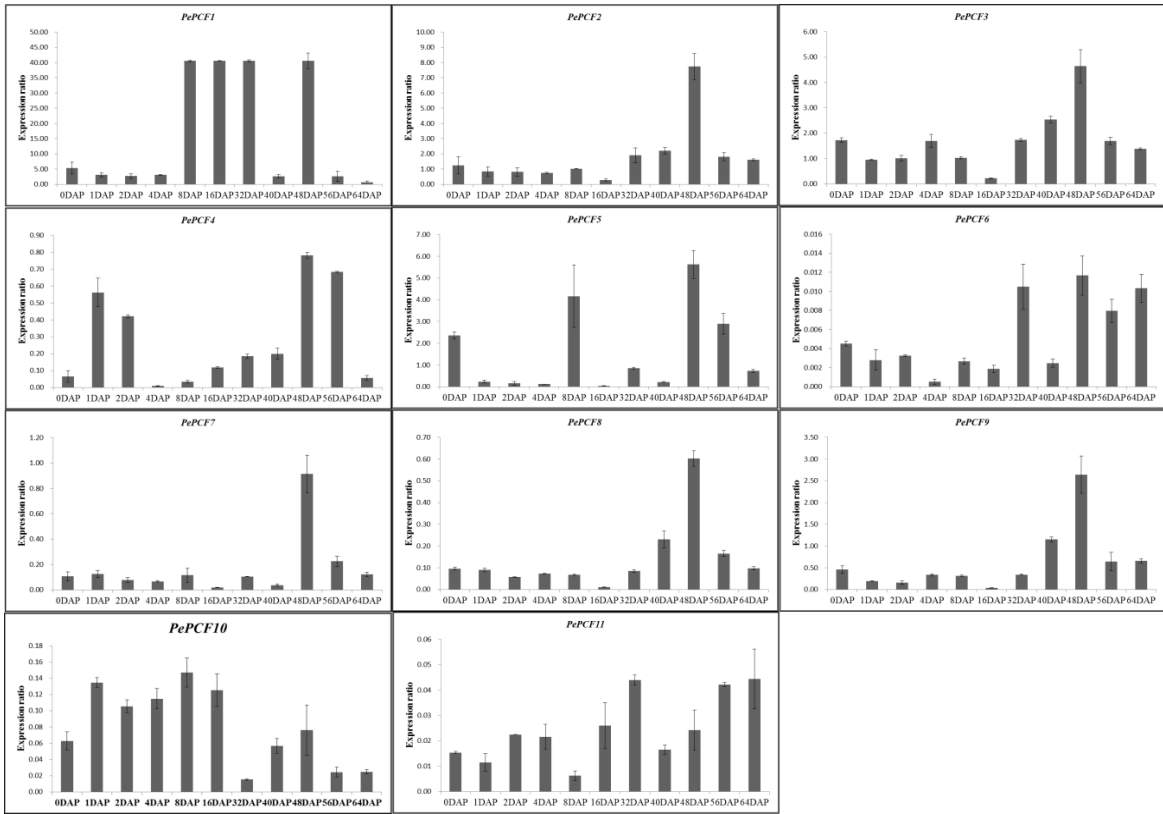


Figure S2

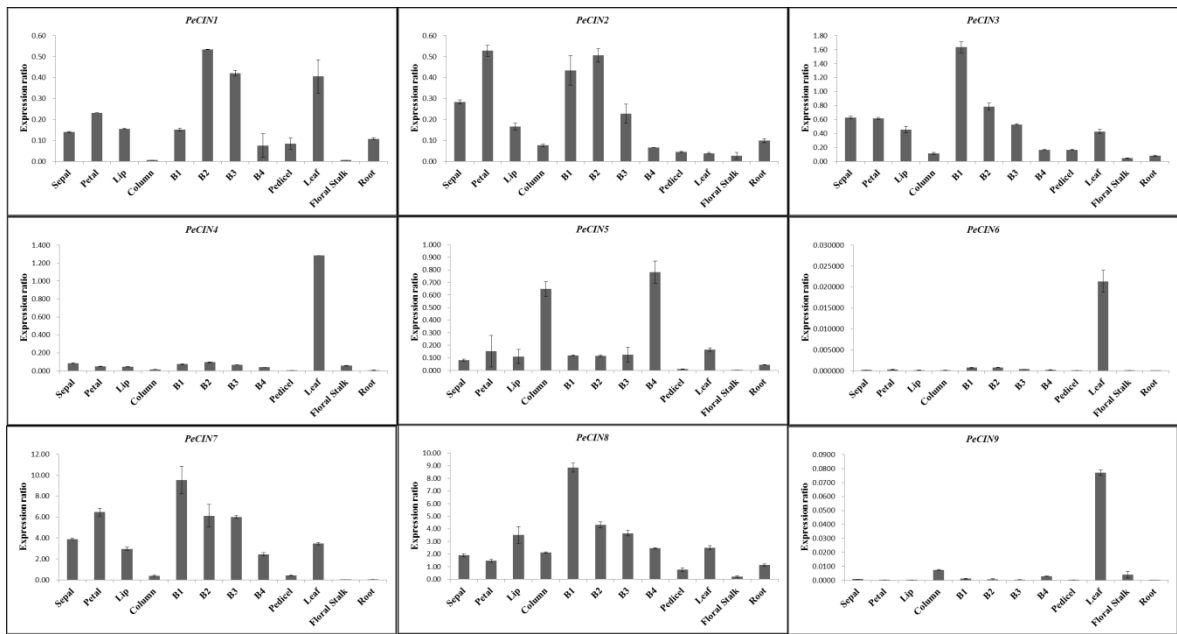


Figure S3

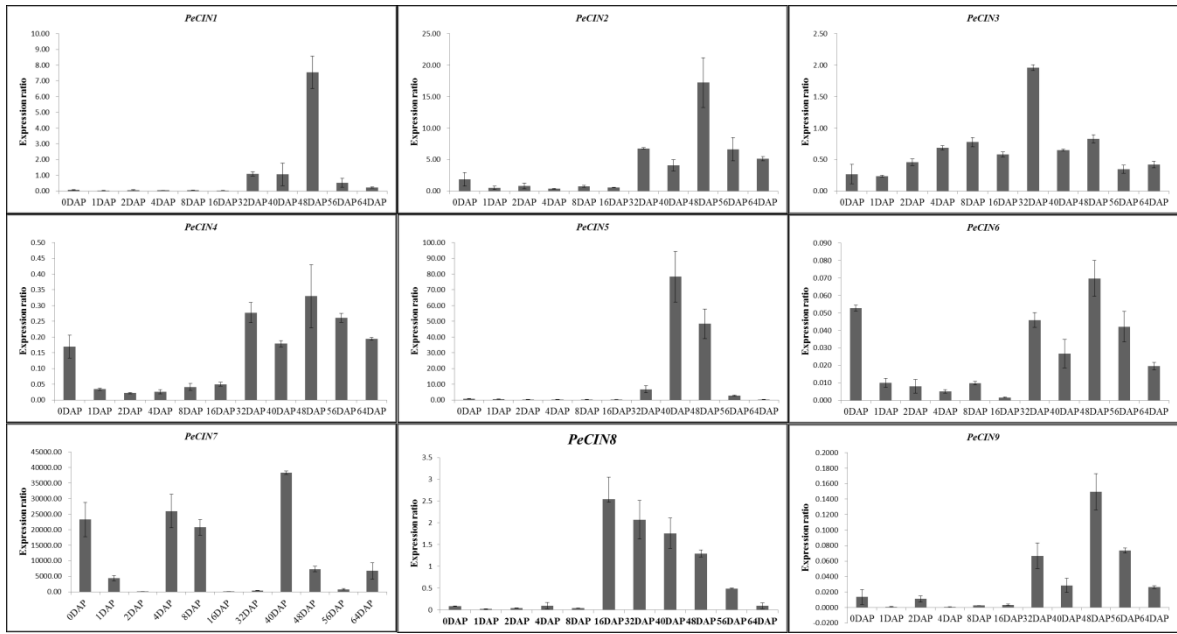


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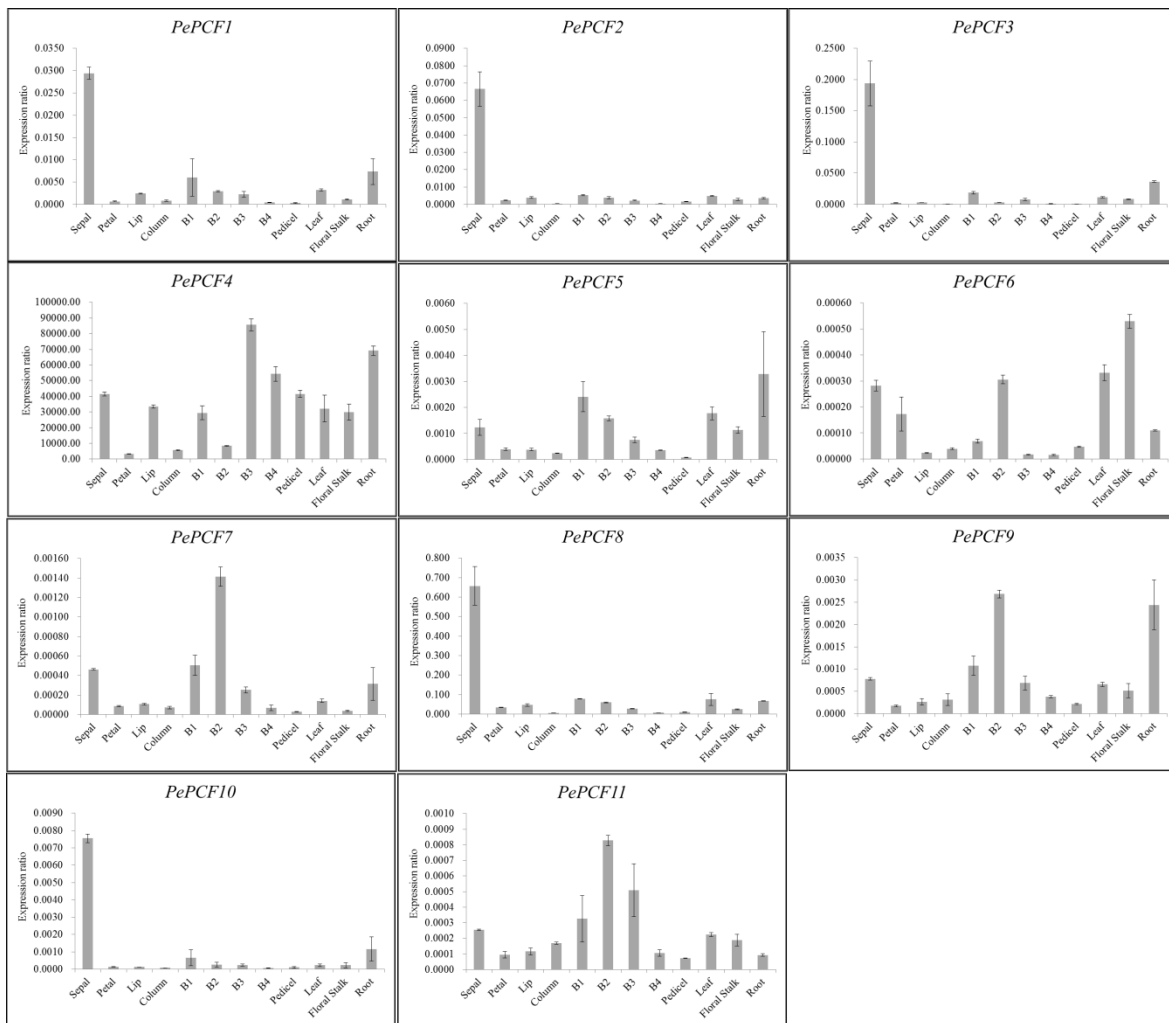


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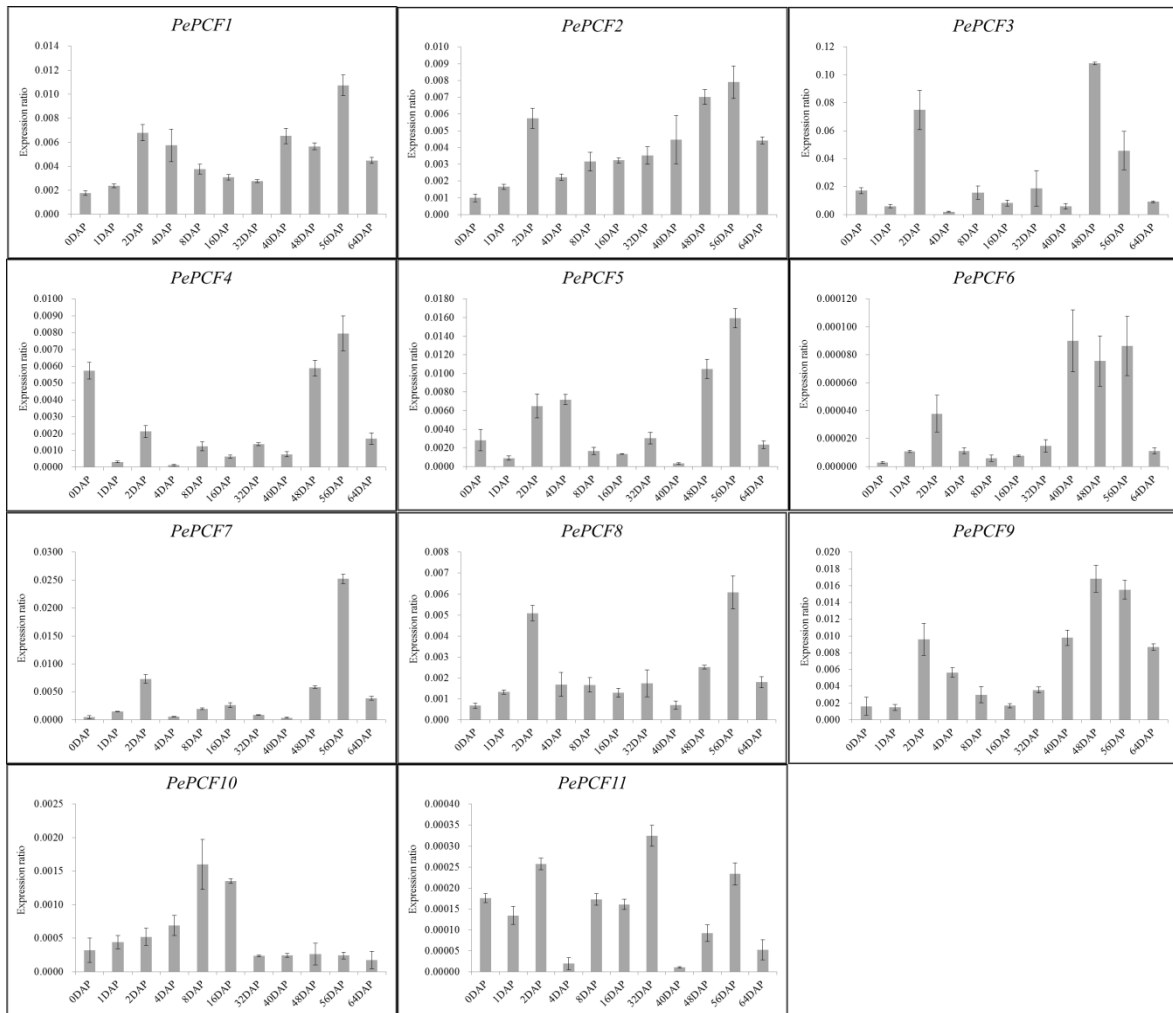


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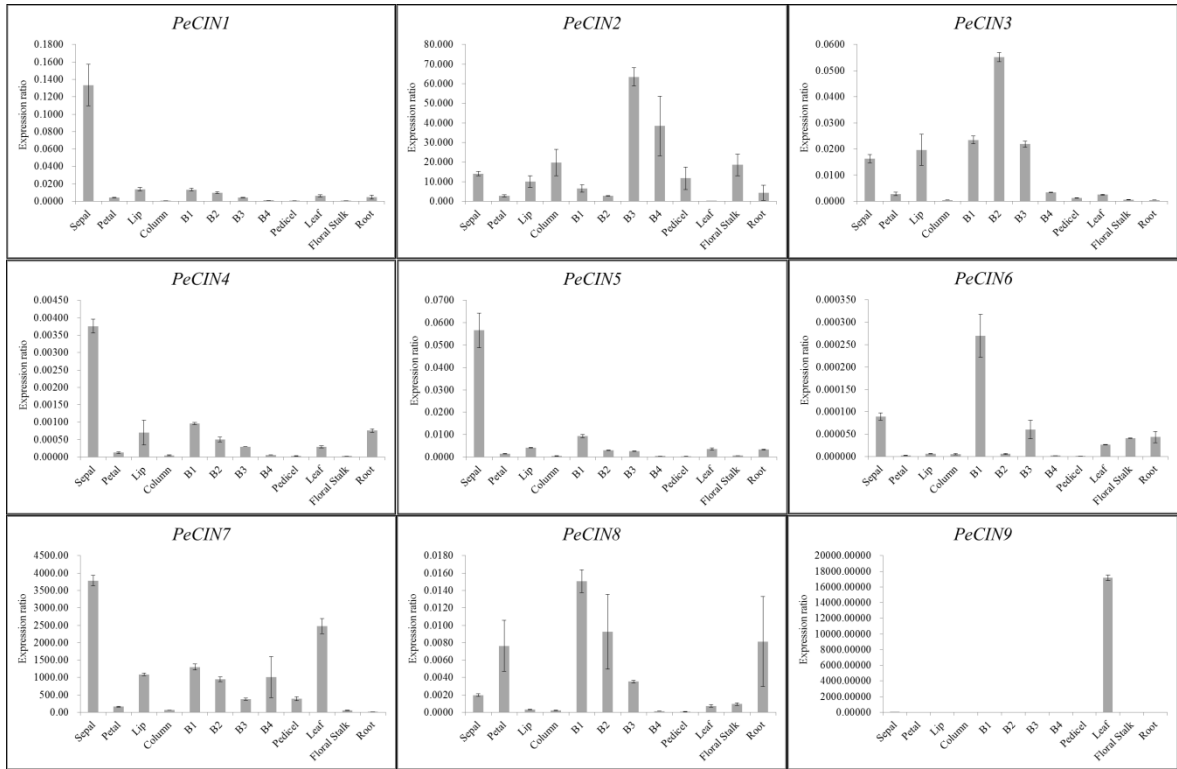


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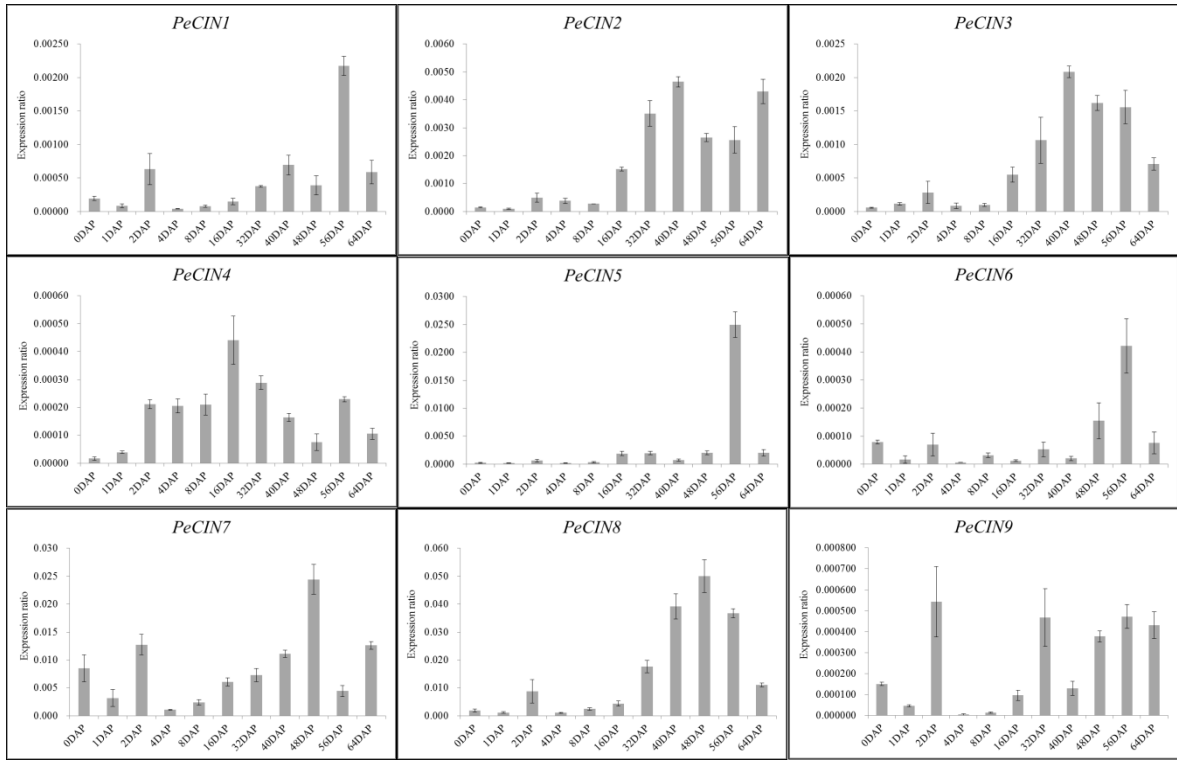


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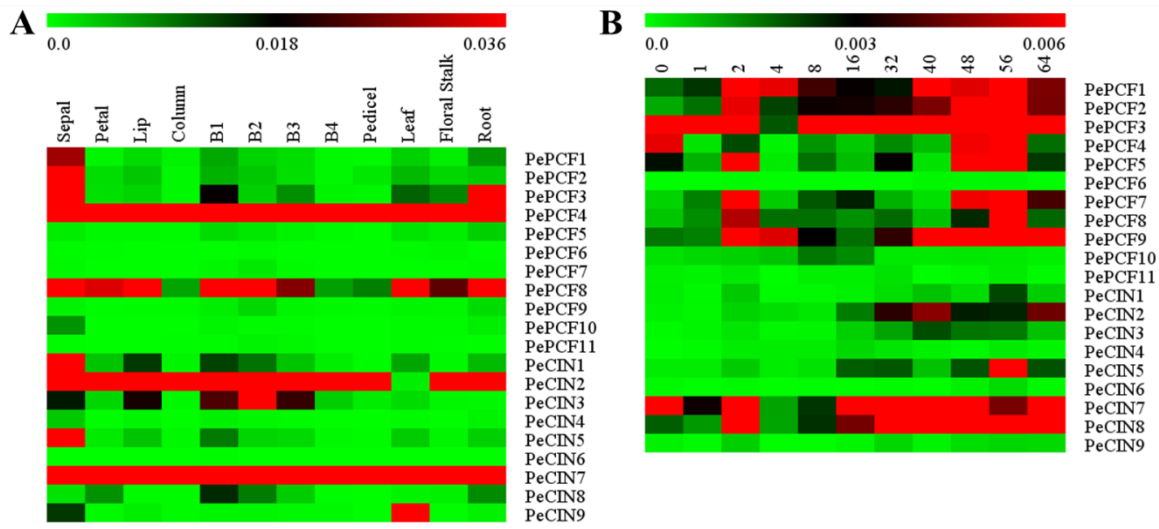


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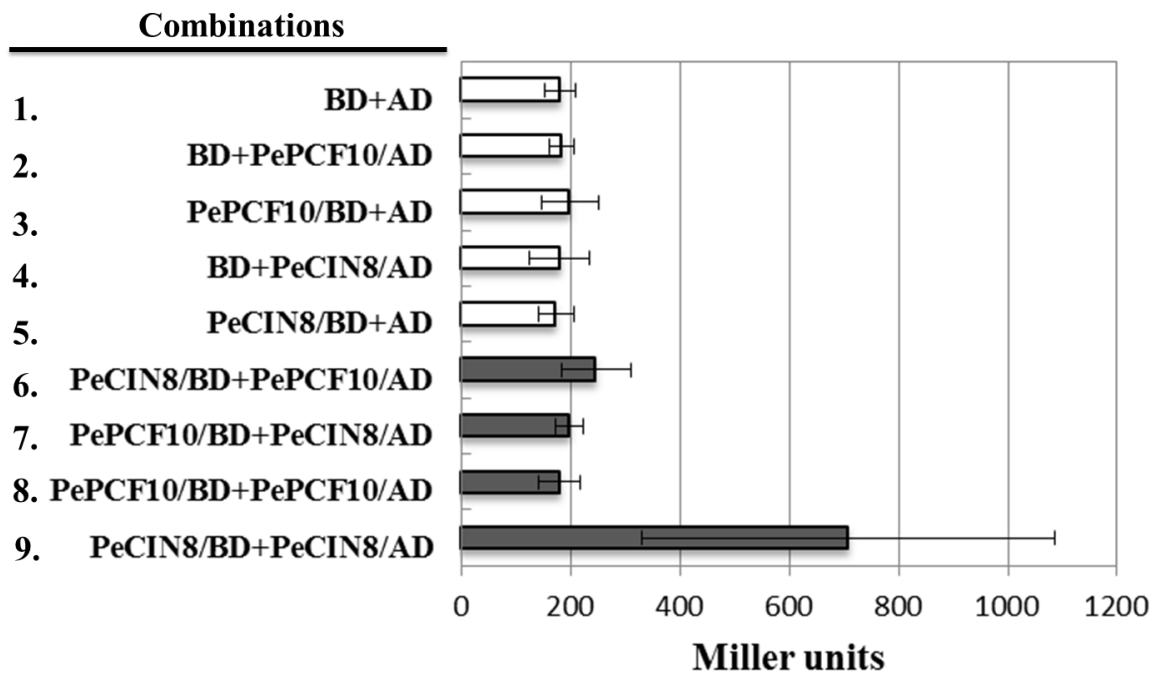


Figure S10

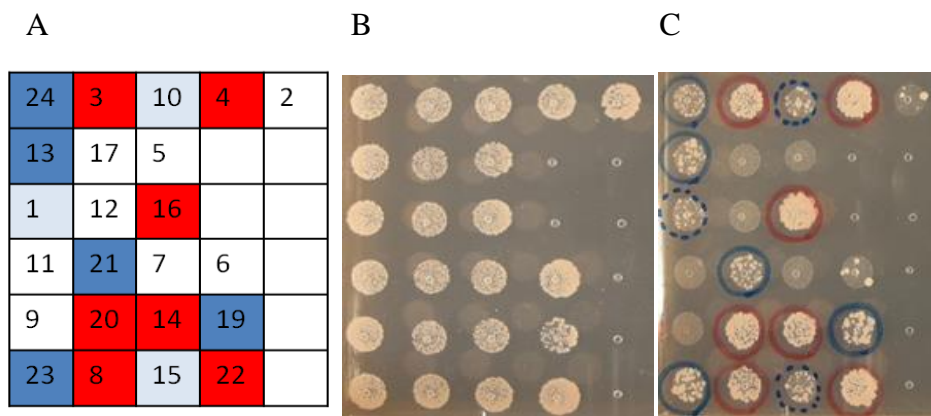


Figure S11