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# Supplementary Material

**Overexpression of human peroxisomal enoyl-CoA delta isomerase2 HsPECI2, an ortholog of bamboo expressed during gregarious flowering alters salinity stress responses and polar lipid content in tobacco**

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# Supplementary information

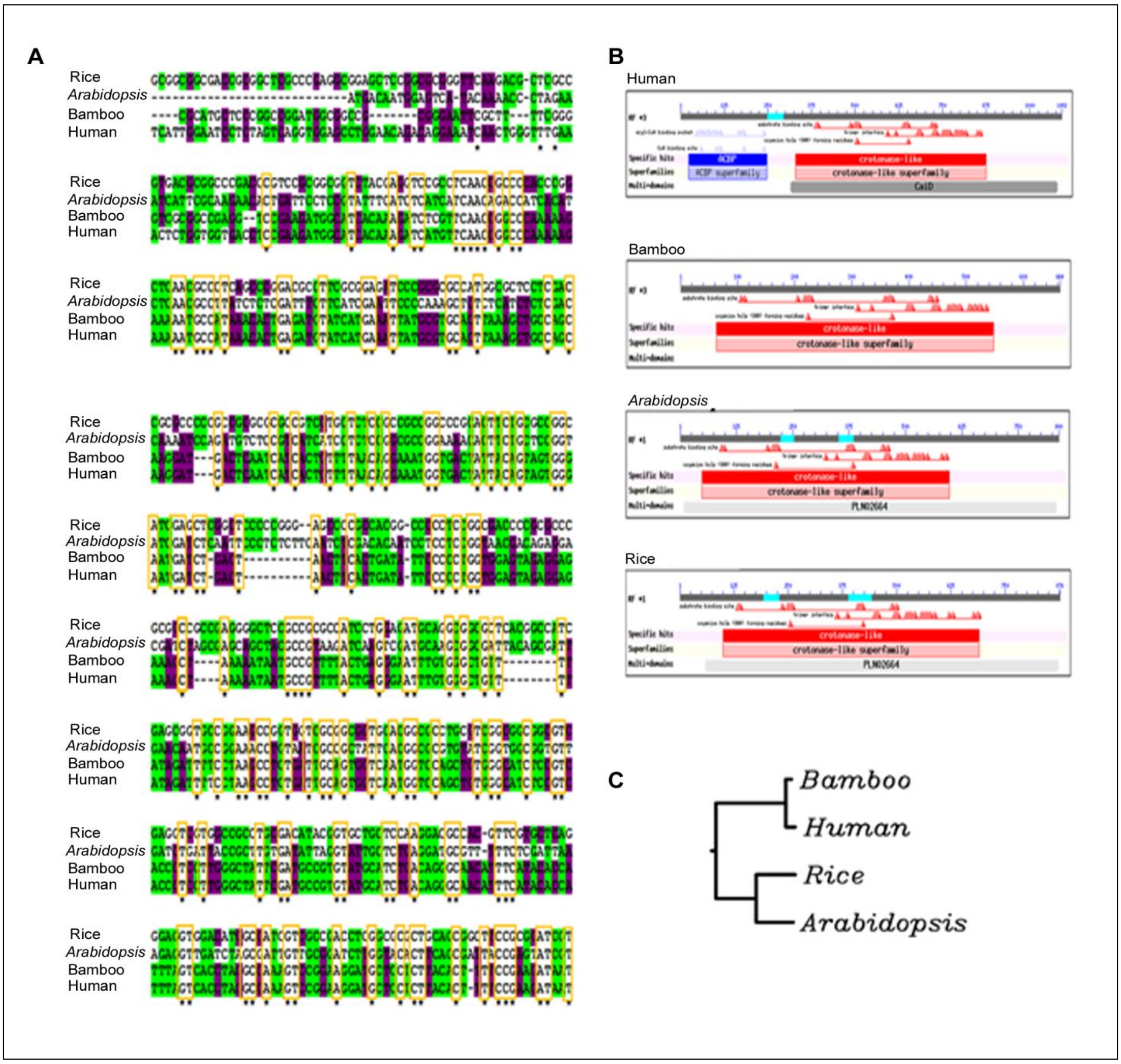


**Figure S1.** (A) Multiple sequence alignment between bamboo (*Bambusa arundinacea*) *PECI* EST sequence and the downloaded gene sequence of rice (*O. sativa*), *Arabidopsis* (*A. thaliana*) and human (*H. sapiens*) (Gen Bank) was performed. Where '*' indicates 100% identity and conservation among species, the violet color shade shows similarity among any three species and yellow color shade indicates similarity among any two species. (B) Presence of putative crotonase-like superfamily domains predicted by the Conserved Domains Database (NCBI) in the *PECI* gene among different species where *H. sapiens* showed a presence of an additional ACBP domain. (C) A phylogenetic tree was constructed to know the evolutionary relationship of *PECI* gene among four selected species.

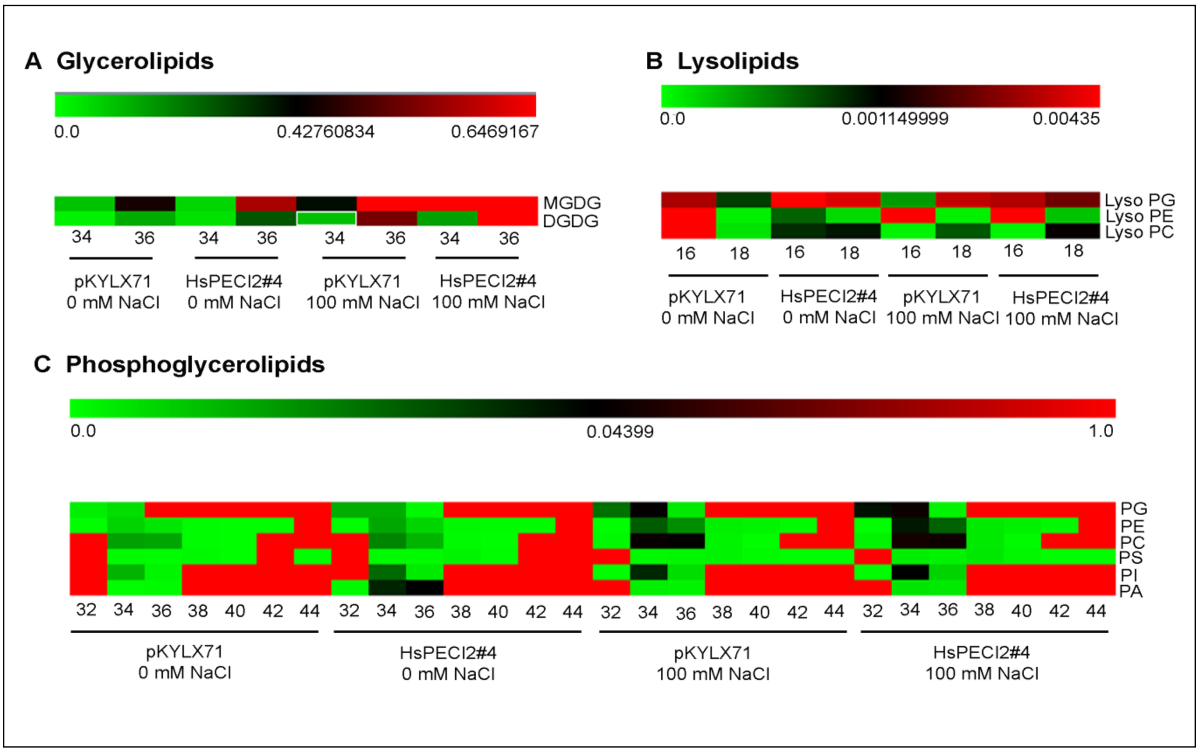


**Figure S2.** The overall lipid molecular species in pKYLX71 and HsPECI#4 plants under untreated and 100 mM NaCl treated condition as shown by ECI-MS/MS. **(A)** Glycerolipids; **(B)** Lysolipids; **(C)** Phosphoglycerolipids. Color key in each panel represents the level of lipid content wherein scale “green-black-red” indicates “no_change-moderate_change-high_change”, the minimum and maximum values were also listed. The abbreviations used in heat map are described in Figure 3.

**Table S1.** Sequences of synthetic oligonucleotides primer in 5'-3' direction

| Gene | Primer sequence (5’ to 3’) |
|---|---|
| PECI-*Xho*I (F) | GATCACTCGAGAACCATGGGTAATAGAA CAGCAATGAGAGC |
| PECI-*Sac*I (R) | ATGCAGGAGCTCTCACAGTTTTGA TTTTCTGGATAAG |
| PECI (F) | TTTCCTAAGCCTCTGATTGC |
| PECI (R) | TAAGCATCTCTGTTGCCTTG |
| $Kan^r$ (F) | ATGAGCCATATTCAACGGGAAACGT |
| $Kan^r$ (R) | TCAGCGTAATGCTCTGCCAGTGT |
| MYB2 (F) | GAAGGAGCACACCAACAAGG |
| MYB2 (R) | CTCGTCGTCGGTGAAGTTG |
| NCED3 (F) | ACAATGATTGCTCACCCGAAA |
| NCED3 (R) | CTGGTCGGGAATTACGACAT |
| PP2C (F) | ATGTCACGAGCAATTGGTGA |
| PP2C (R) | CAACTGGTCGGAGCTTTCTC |
| NADPH Oxidase D (F) | AAGGTGATGCTCGTTCTGCT |
| NADPH Oxidase D (R) | GTGAAAAATCCAAGGCGTGT |
| NADPH Oxidase F (F) | TCAAGAACTCAAGCGGGTCT |
| NADPH Oxidase F (R) | GACCAACAAGCAGCAAGACA |
| β-actin (F) | ATGACTCAGATCATGTTTGAG |
| β-actin (R) | AGCCTTCGCAATCCACATCTG |