

Supplementary Information

Deciphering evolutionary dynamics of *SWEET* genes in diverse plant lineages

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Supplementary Figure S1: Relationship between *SWEET* gene number and (a) Gene loci numbers on the whole genome scale, (b) Genome size, (c) Chromosome numbers, respectively.

Supplementary Figure S2: The distribution and inter-genomic comparison of *SWEET* genes in two legume species.

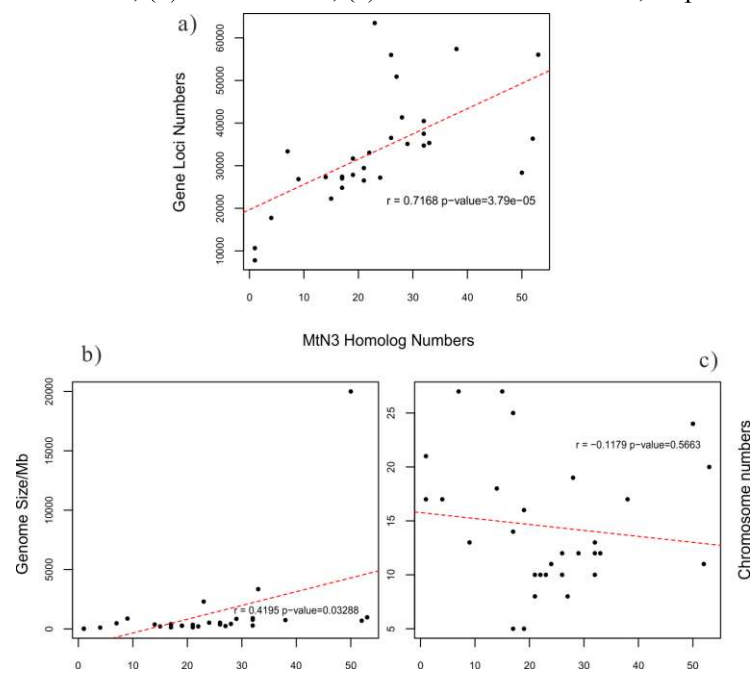
Supplementary Figure S3: Diagram of *SWEET* proteins harboring one(a), two(b) and three MtN3_slv(c) domains.

Supplementary Figure S4: The maximum-likelihood (ML) phylogenetic tree built by the *SWEET* genes with entire protein sequences from 31 plant species.

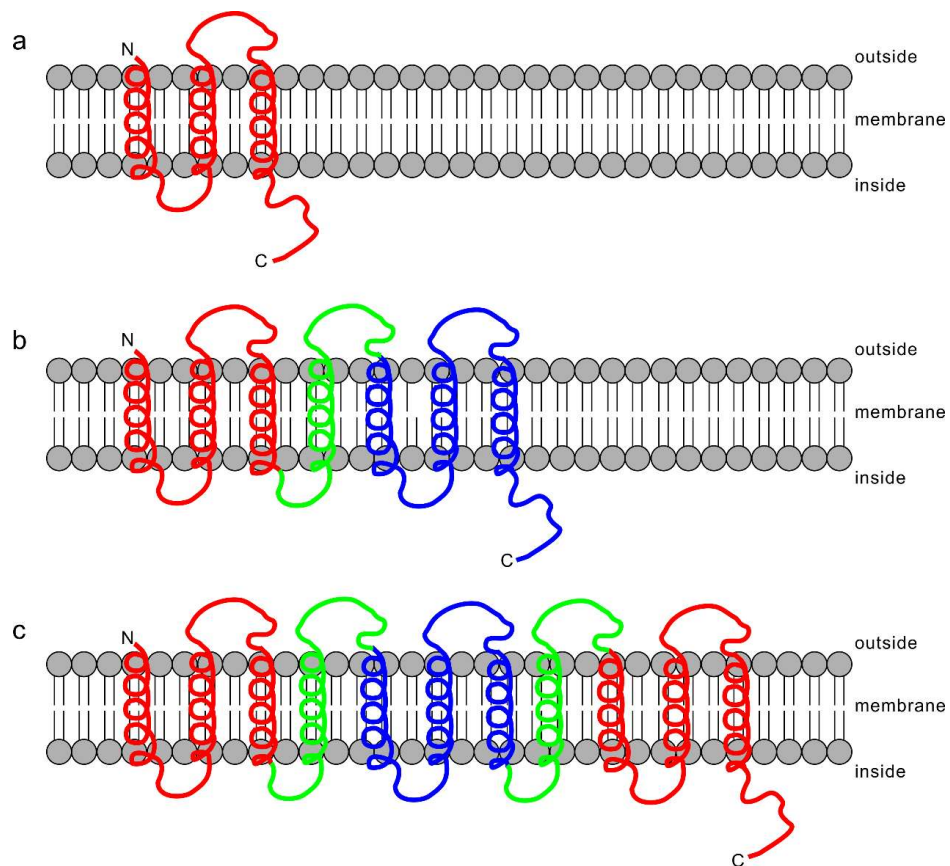
Supplementary Figure S5: The maximum-likelihood (ML) phylogenetic tree built by the *HUS1* genes with entire protein sequences from 31 plant species.

Supplementary Table S1: Genomic information of surveyed 30 species.

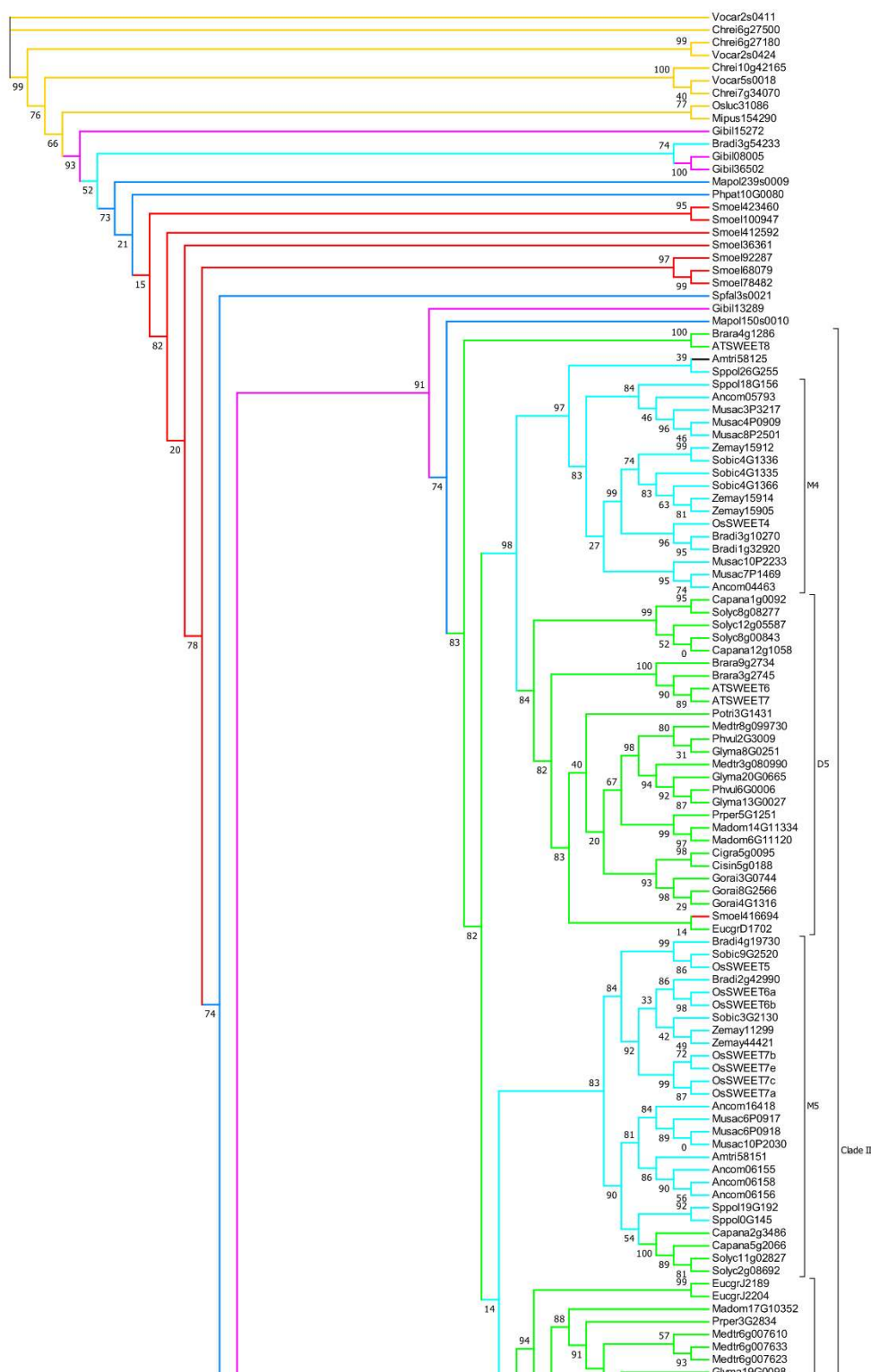
Supplementary Figure S1: Relationship between SWEET gene number and (a) Gene loci numbers on the whole genome scale, (b) Genome size, (c) Chromosome numbers, respectively.

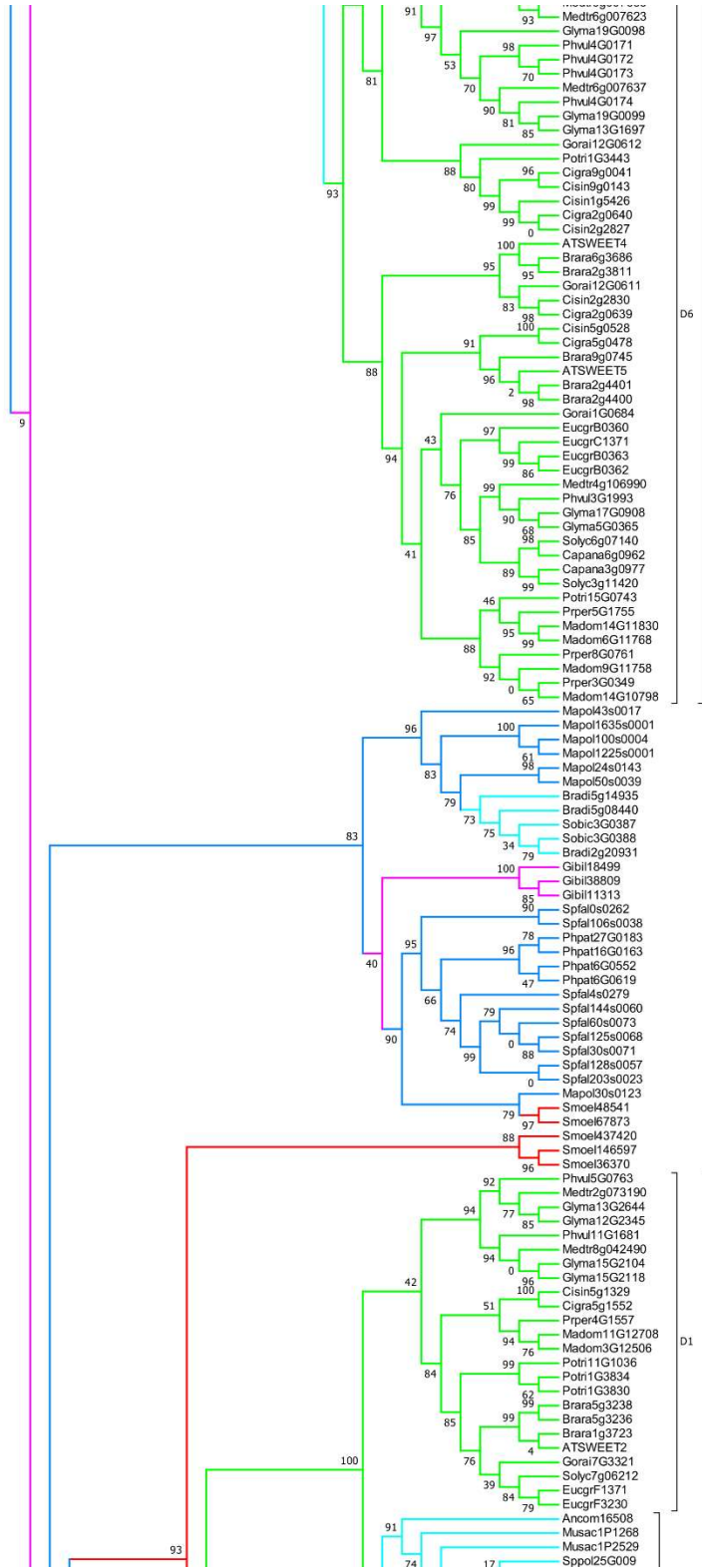


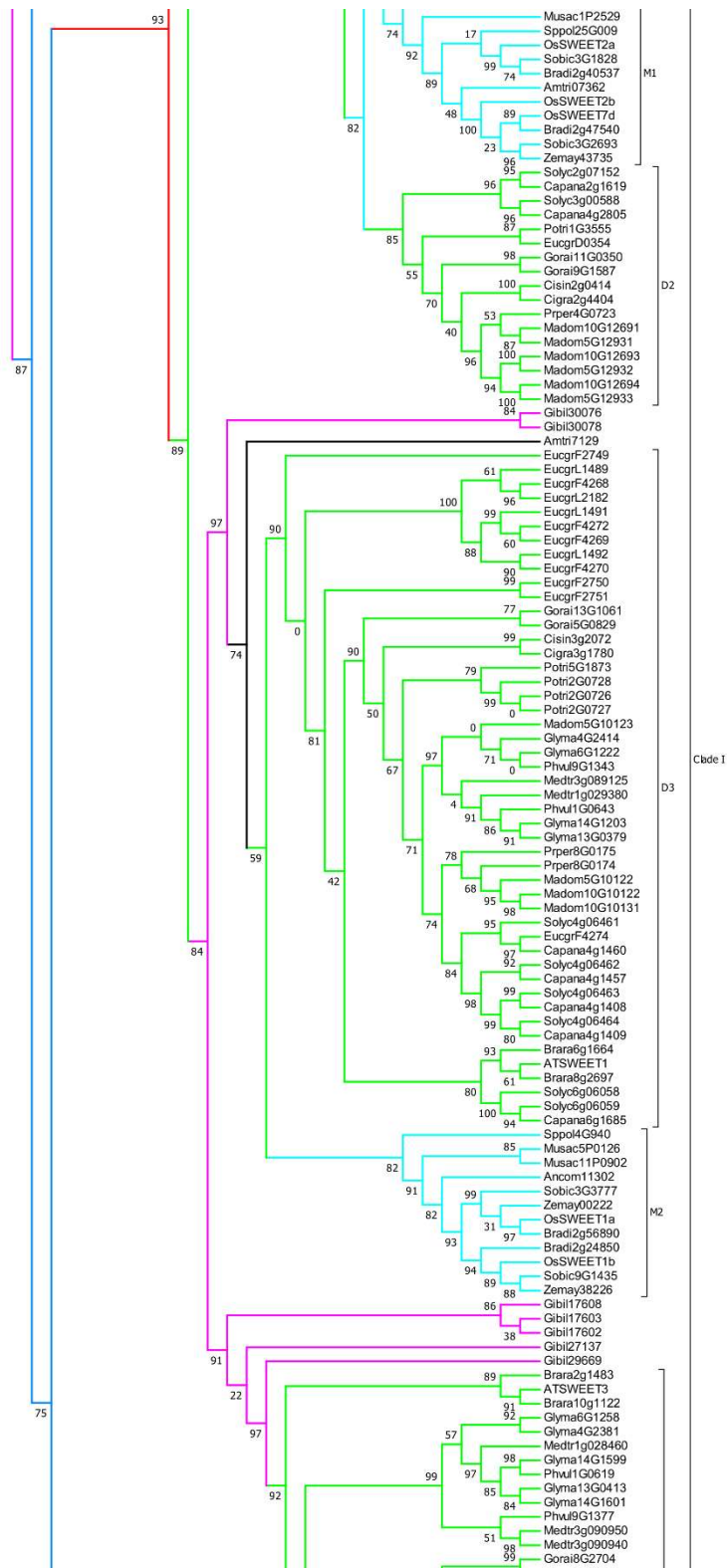
Supplementary Figure S3: Diagram of SWEET proteins harboring one(a), two(b) and three MtN3_slv(c) domains.

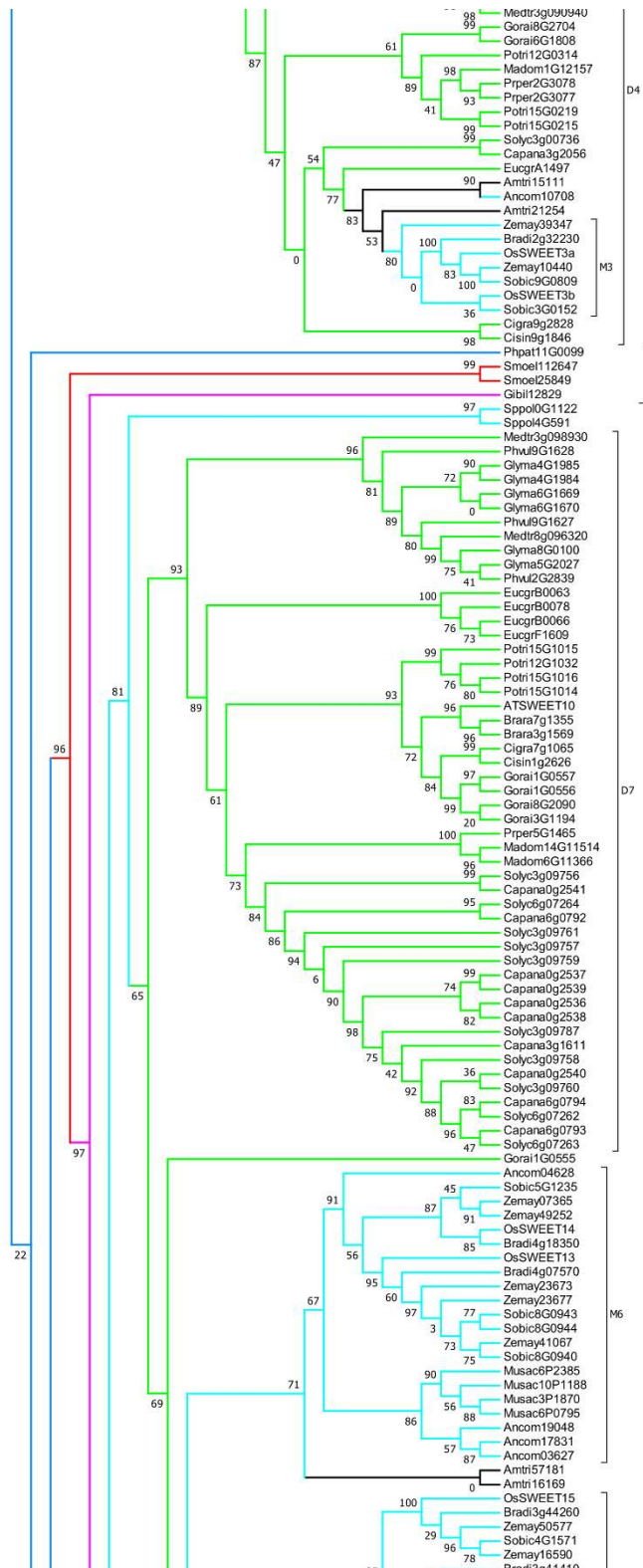


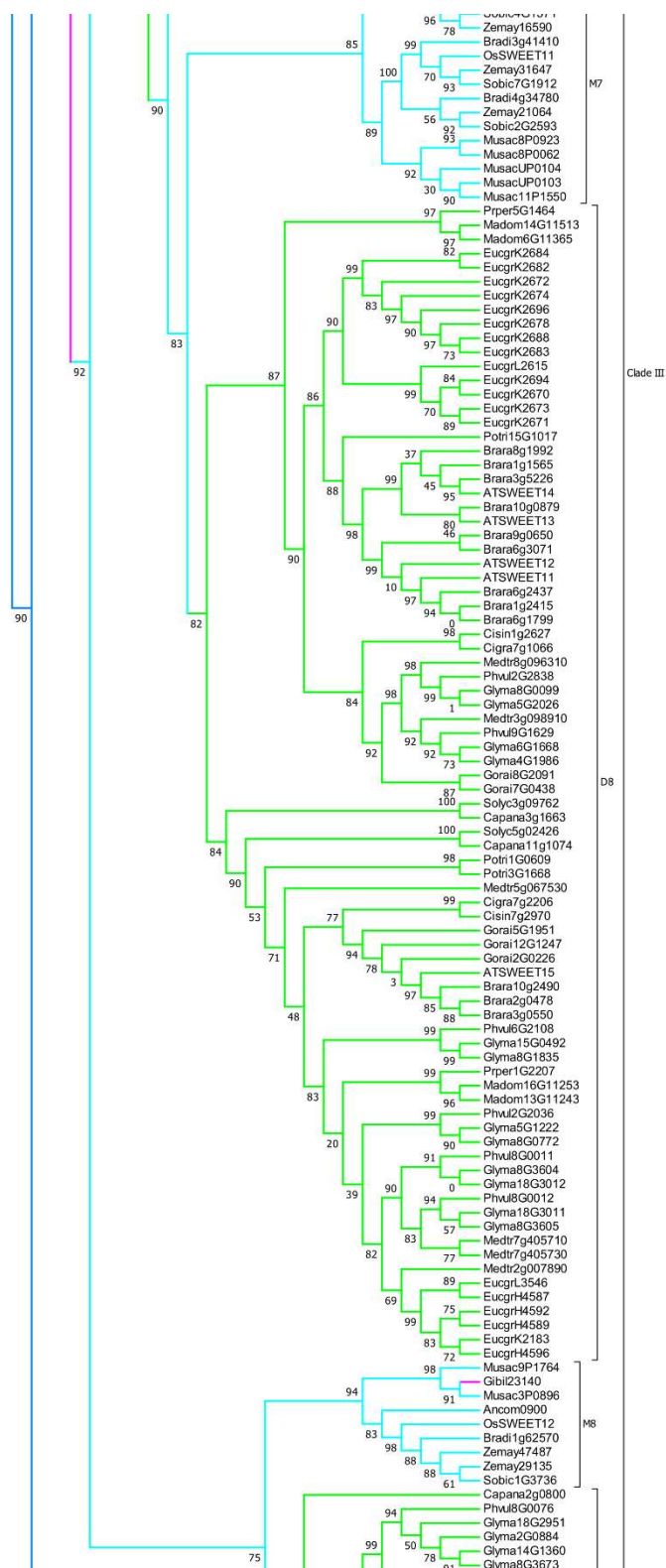
Supplementary Figure S4: The maximum-likelihood (ML) phylogenetic tree built by the *SWEET* genes with entire protein sequences from 31 plant species. Genes from different species have corresponding prefix, which were listed in Table S1. Branch with different color represents different plant species. Green indicates dicot species; azure indicates monocot species; black represents *A.trichopoda* and *A.coerulea*; red indicates *P.abies*; rosy red indicates *S.moellendorffii*; brown represents *P.patens*; yellow represents algae species. Classification of four clades were also marked by square brackets.

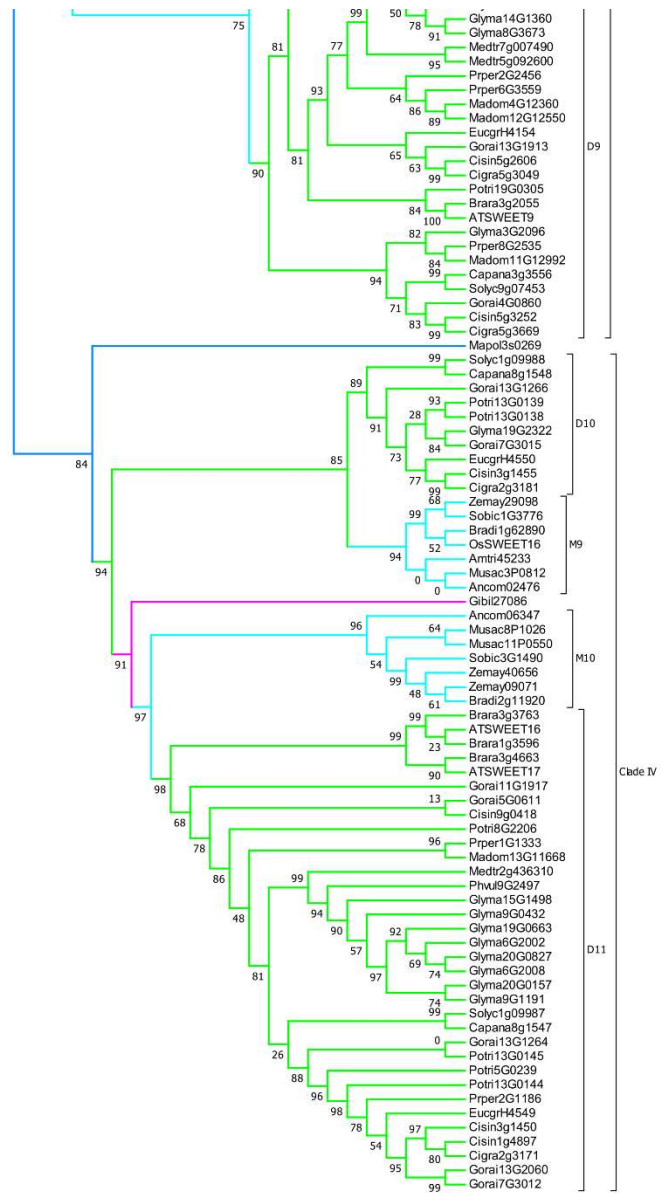












Supplementary Figure S5: The maximum-likelihood (ML) phylogenetic tree built by the *HUS1* genes with entire protein sequences from 31 plant species. This tree was also built by PhyML 3.0.

