



Supplementary figure 4A. A phylogenetic tree of OPT7 genes from 54 green plant species. The involved plants include 54 plants such as *Gastrodia* and *Zindrobrum* (Supplementary table 20). The vertical columns from left to right in the figure represent the leaf, D, species name, species family, and expression level, respectively. Interspecific and intraspecific whole-genome duplication events are marked in the upper left corner of the figure. Bootstrapping values have been labeled on the phylogenetic tree, which indicate the credibility of the branches. The query genes used in *A. thaliana* have been marked on the tree. The right side of the figure shows the duplication of plant species in data set 1, data covering the following developmental stages: TMM1 (immature tube), TMM2 (developing tube), TMM3 (mature tube), TMM5 (capsule), and TMM6 (infructescence). Each stage has three biological replicates, and the data have been averaged.