Supplementary Material

**Knockout of CAFFEOYL-COA 3-O-METHYLTRANSFERASE 6/6L enhances the S/G ratio of lignin monomers and disease resistance in *Nicotiana tabacum***

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**List of Figures**

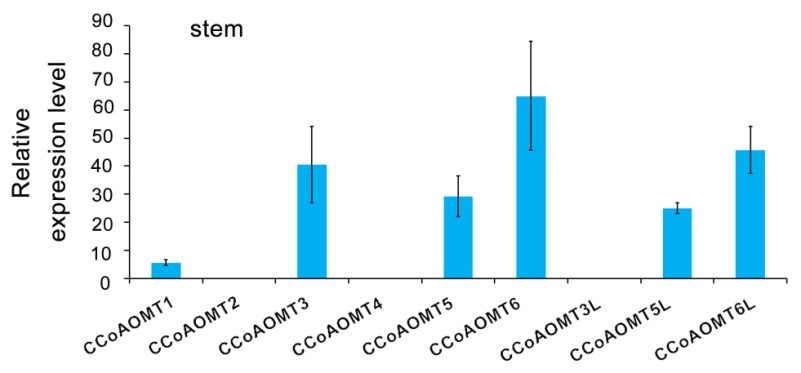
**Supplemental Figure 1.** The relative expression levels of *CCoAOMTs* in tobacco stem extracted from the TN90 RNAseq dataset, as presented by Sierra et al. in 2014. FPKM (Fragments Per Kilobase of transcript per Million mapped reads) was used to represent the relative expression levels.

**Supplemental Figure 2** Differential metabolites analysis of leaves (A) and roots (B) between the wild-type and the double mutant *ccoaomt6 ccoaomt6l.*

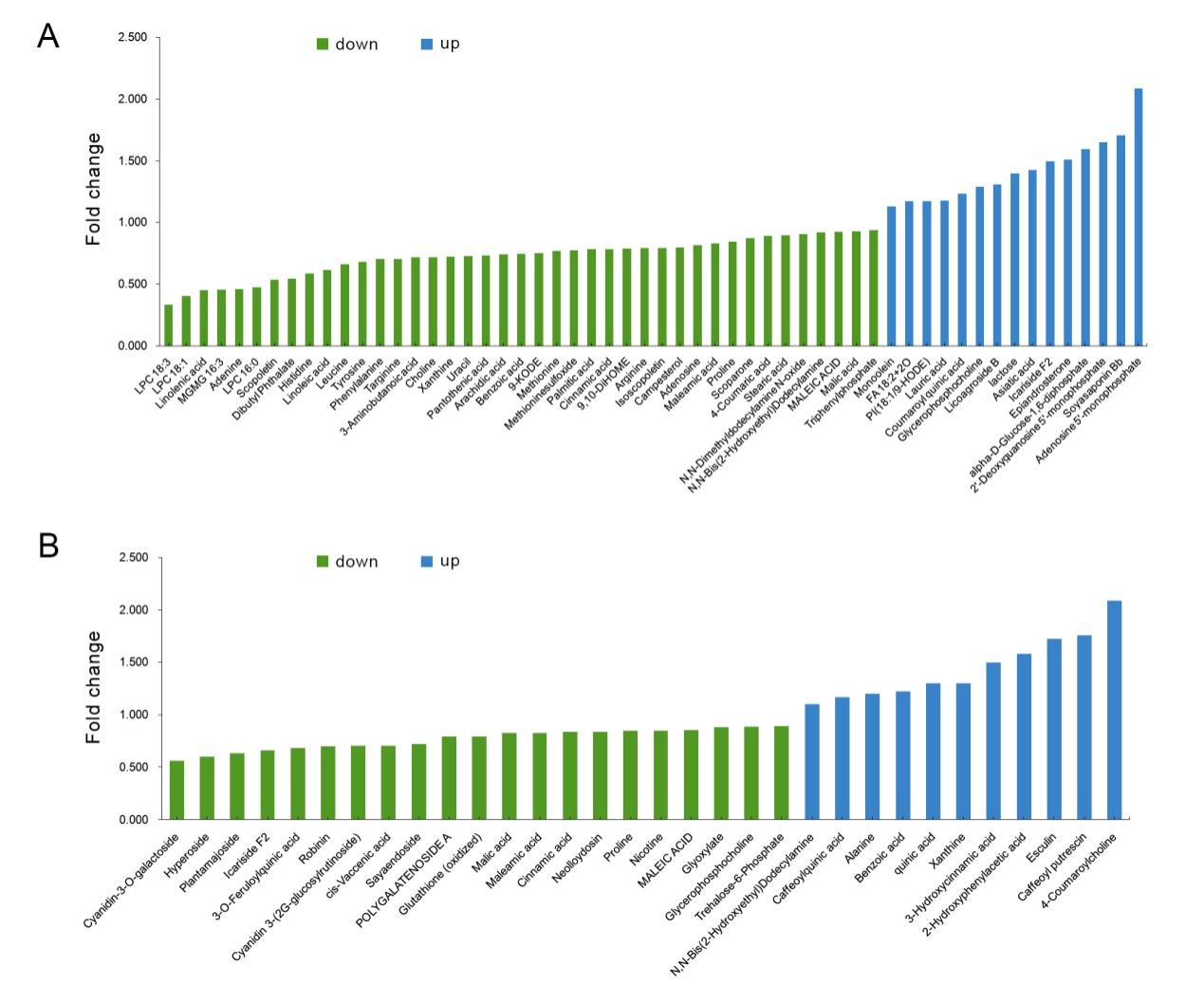
**Supplemental Figure 3** Transcriptome analysis of leaves and roots between the wild-type and the double mutant *ccoaomt6 ccoaomt6l.*(A) A Venn diagram presentation of differentially expressed gene in *ccoaomt6 ccoaomt6l* compared with WT. (B) Number of the up- and down- regulated DEGs in the leaf data. (C) Number of the up- and down- regulated DEGs in the root data.

**Supplemental Figure 4** GO enrichment analysis of DEGs in leaves (A) and roots (B) between the wild-type and the double mutant *ccoaomt6 ccoaomt6l.*

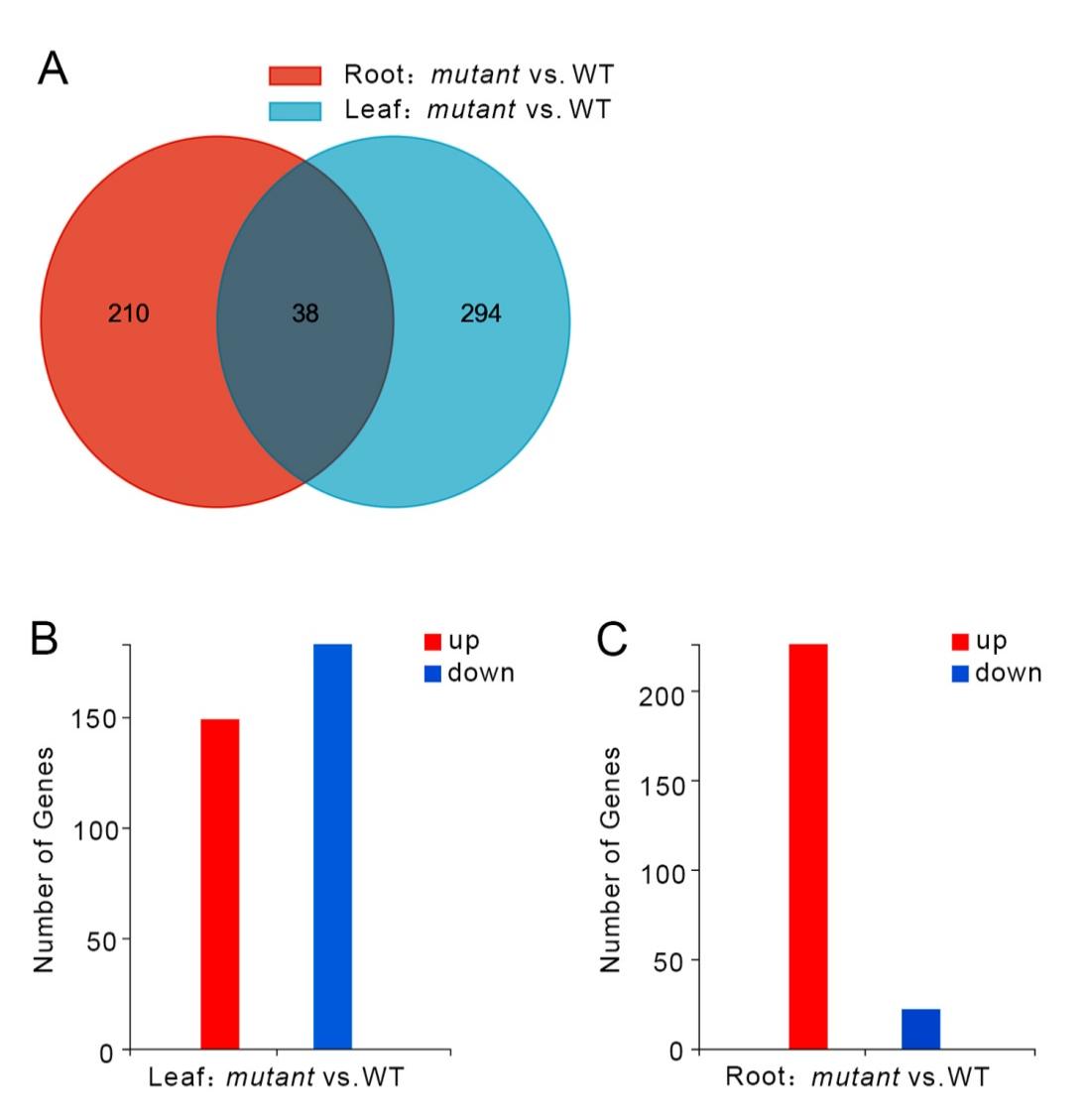
**Supplemental Figure 5** KEGG classification of DEGs in leaves (A) and roots (B) between the wild-type and the double mutant *ccoaomt6 ccoaomt6l.*



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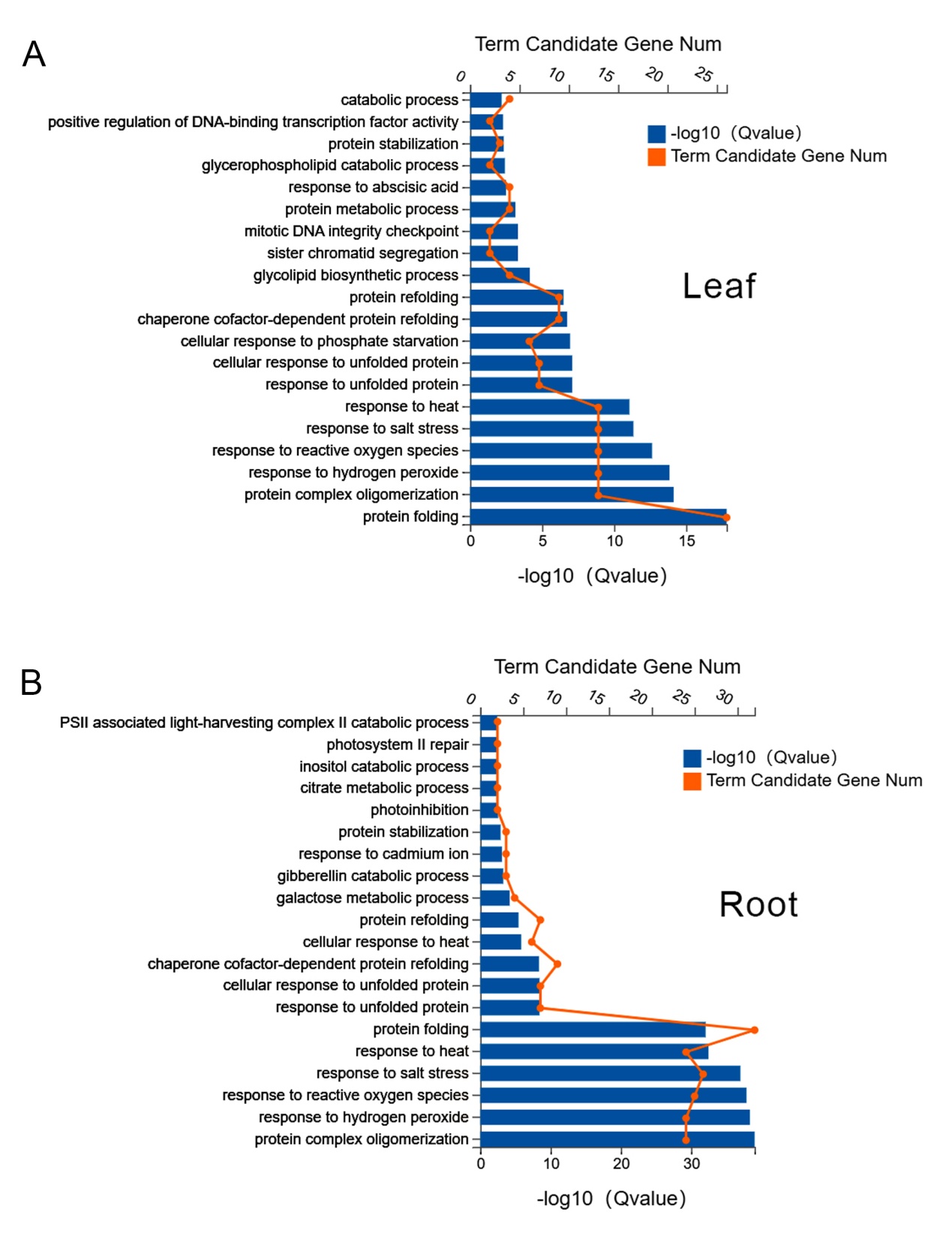


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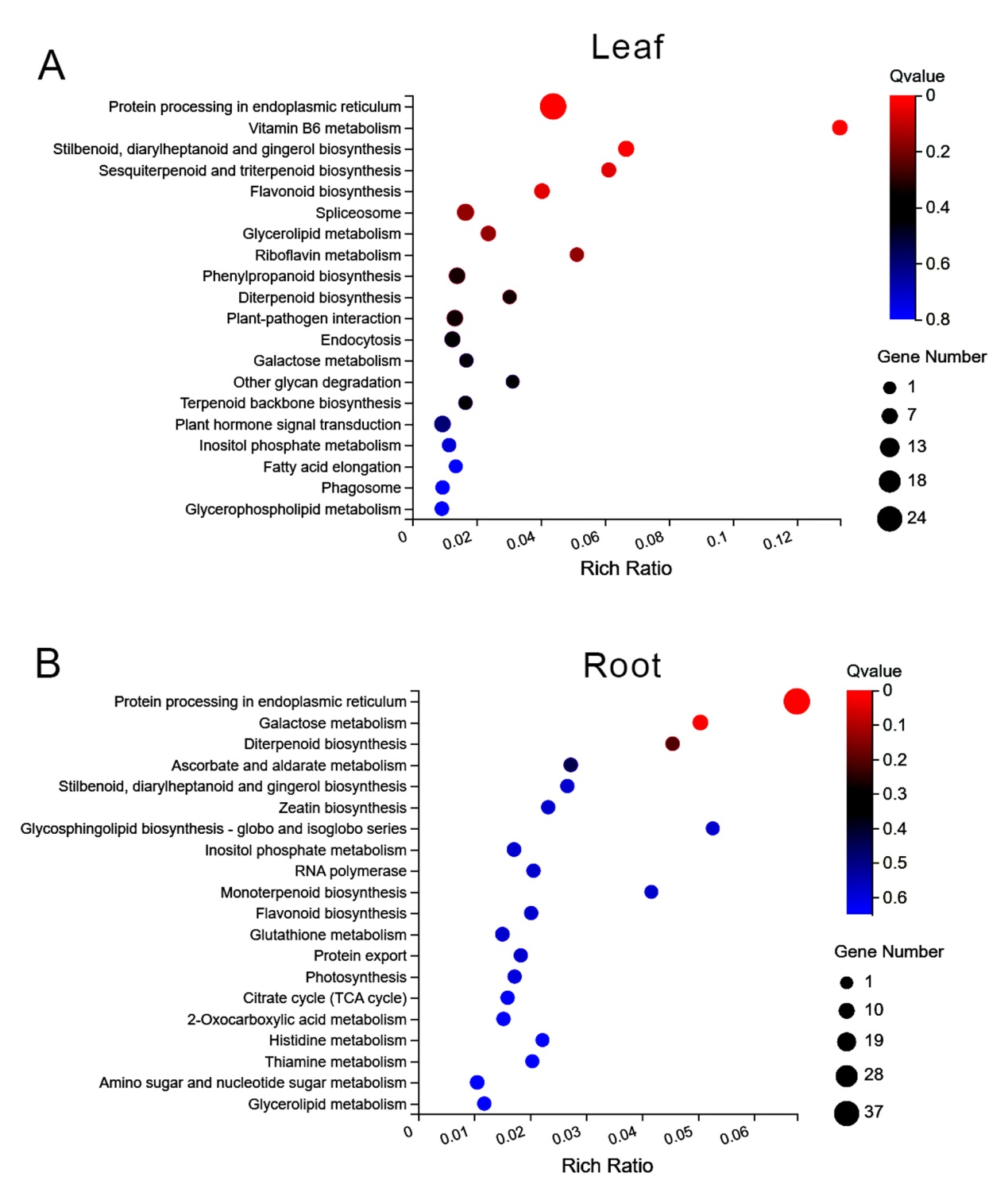


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1. A Venn diagram presentation of differentially expressed gene in *ccoaomt6 ccoaomt6l* compared with WT. (B) Number of the up- and down- regulated DEGs in the leaf data. (C) Number of the up- and down- regulated DEGs in the root data.



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