

Long Non-coding RNAs Coordinate Developmental Transitions and Other Key Biological Processes in Grapevine

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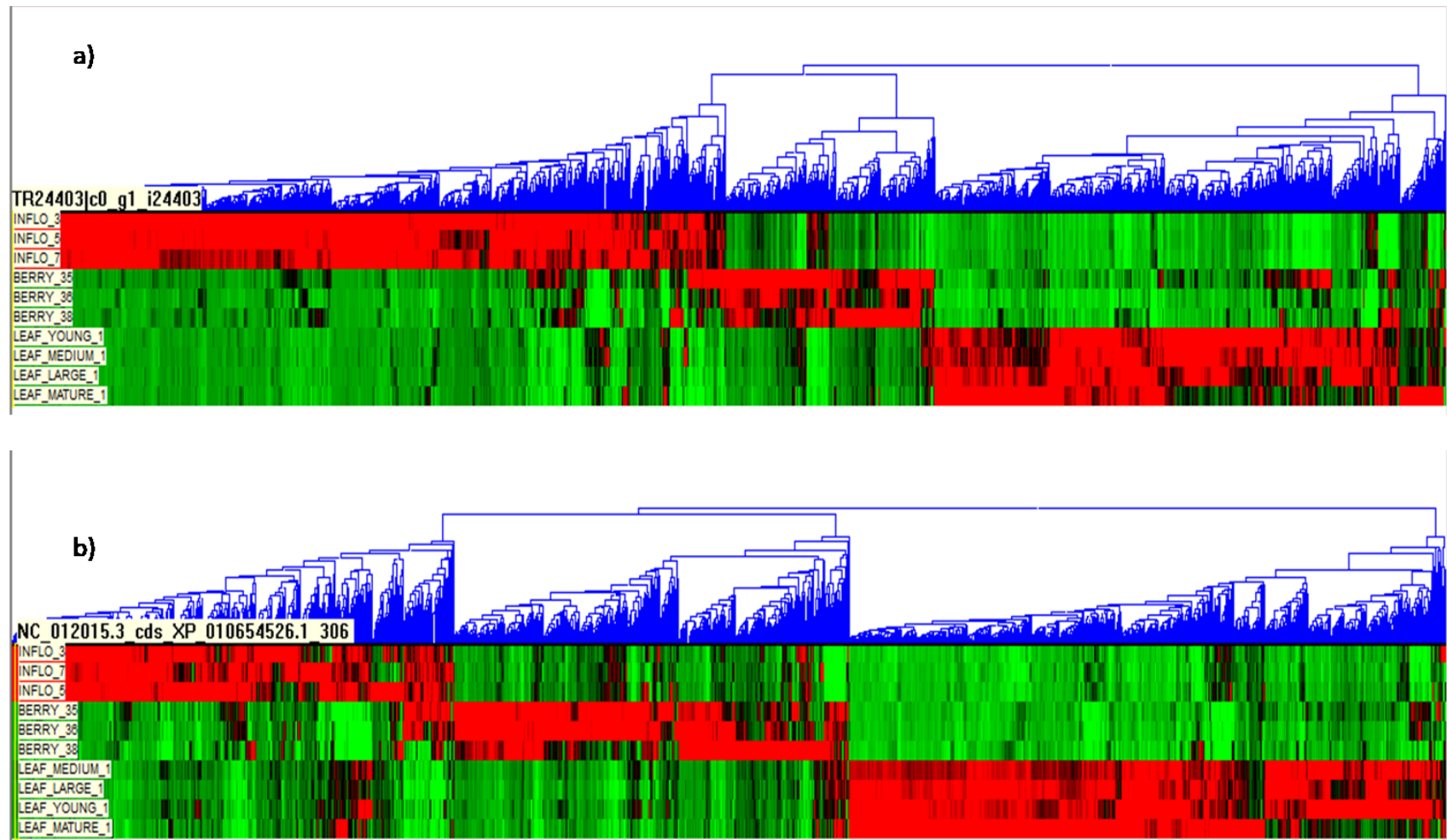
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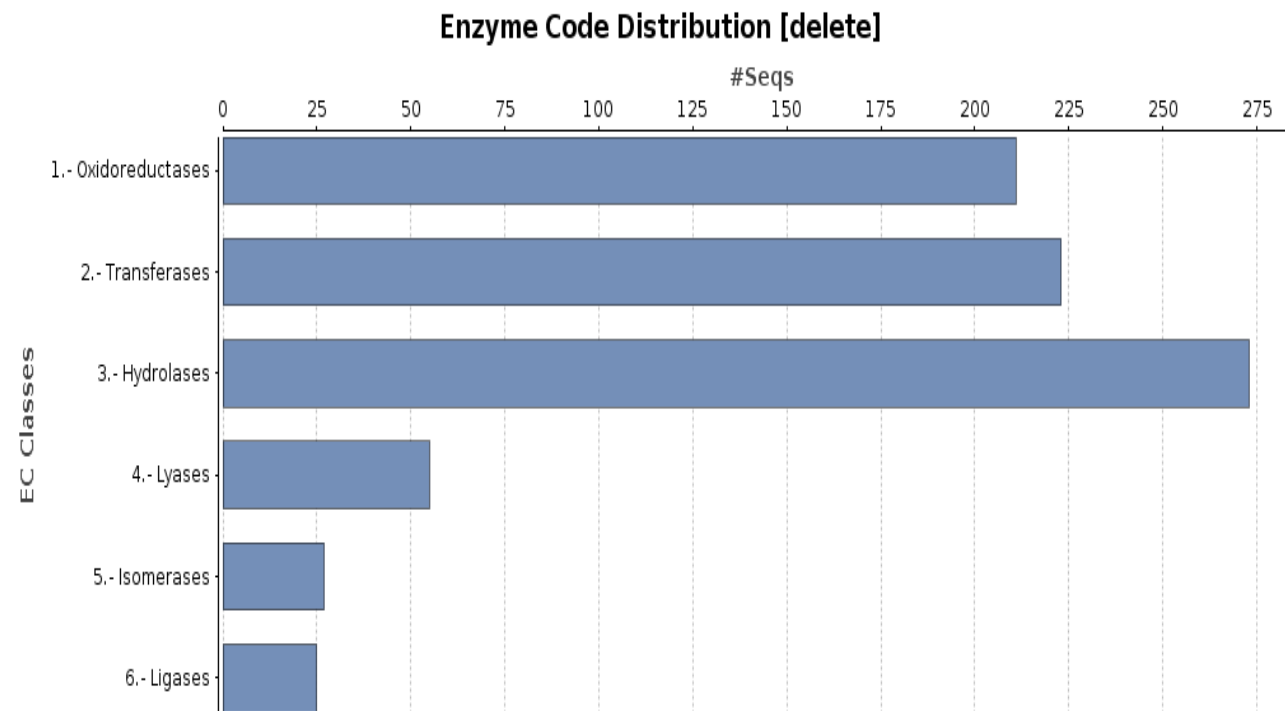
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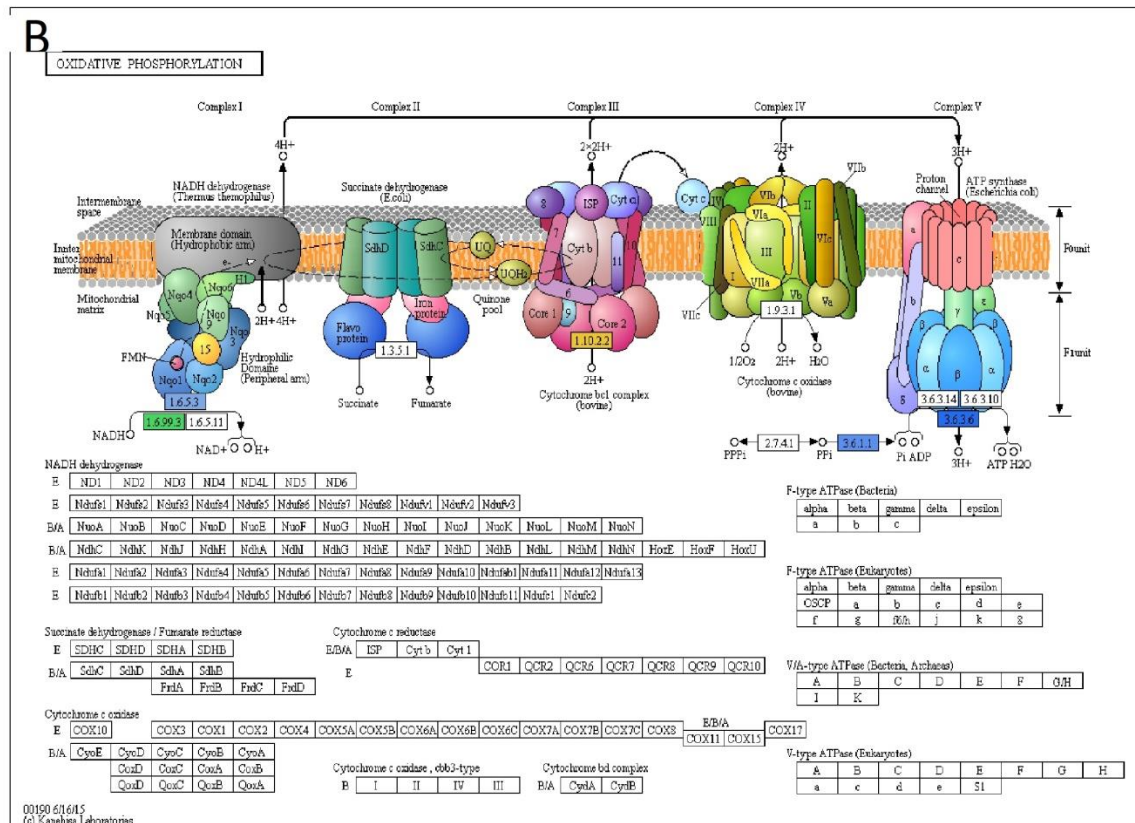
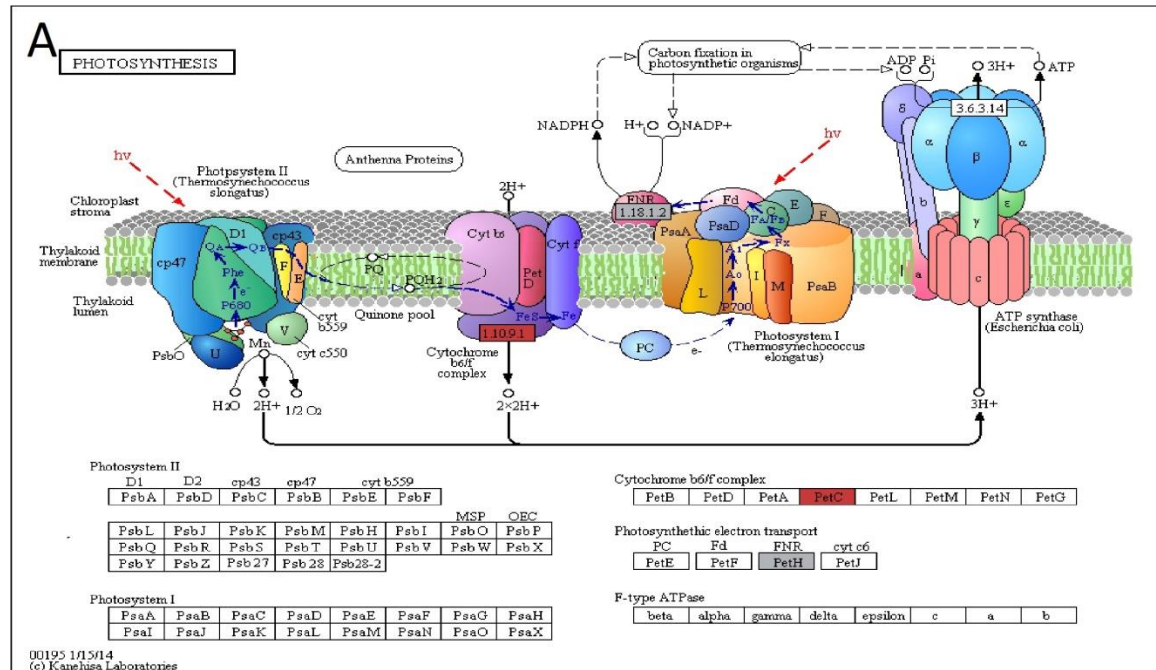
This PDF Document Contains Supplementary Figures 1 to 8



Supplementary Figure 1: Comparison of expression profiles of A) lncRNAs and B) mature mRNA transcripts in 3 tissues and at 10 developmental stages.



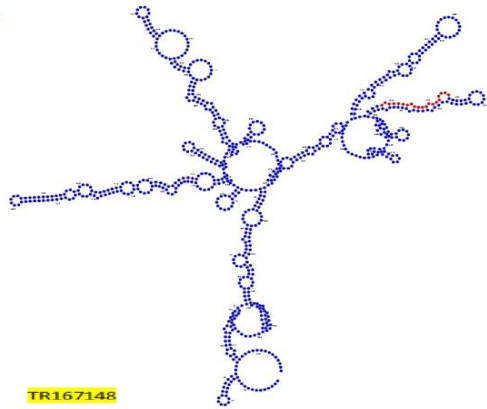
Supplementary Figure 2: Enzyme code distribution for the annotated sequences.



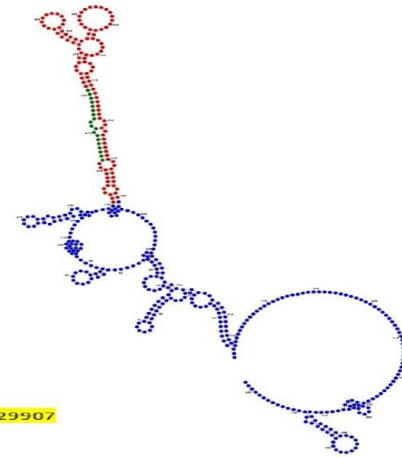
Supplementary Figure 3: CDS co-expressing with lncRNAs and coding for enzymes (indicated by shaded boxes) involved in (A) photosynthesis and (B) oxidative phosphorylation.

The images have been obtained using KEGG¹ map module in BLAST2GO² software (<https://www.blast2go.com/>).

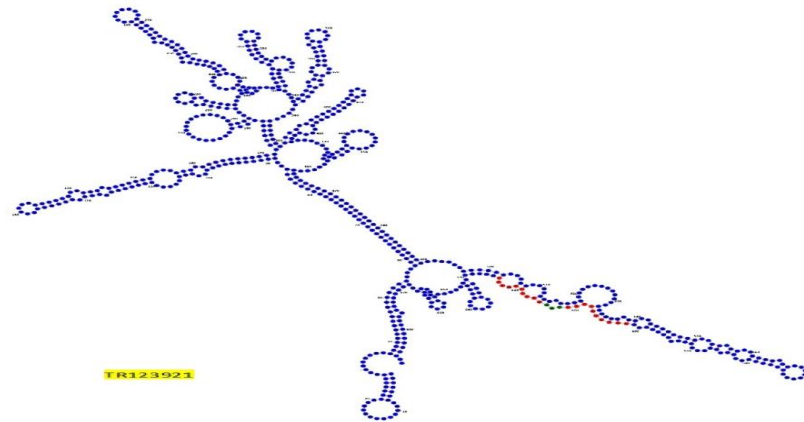
A



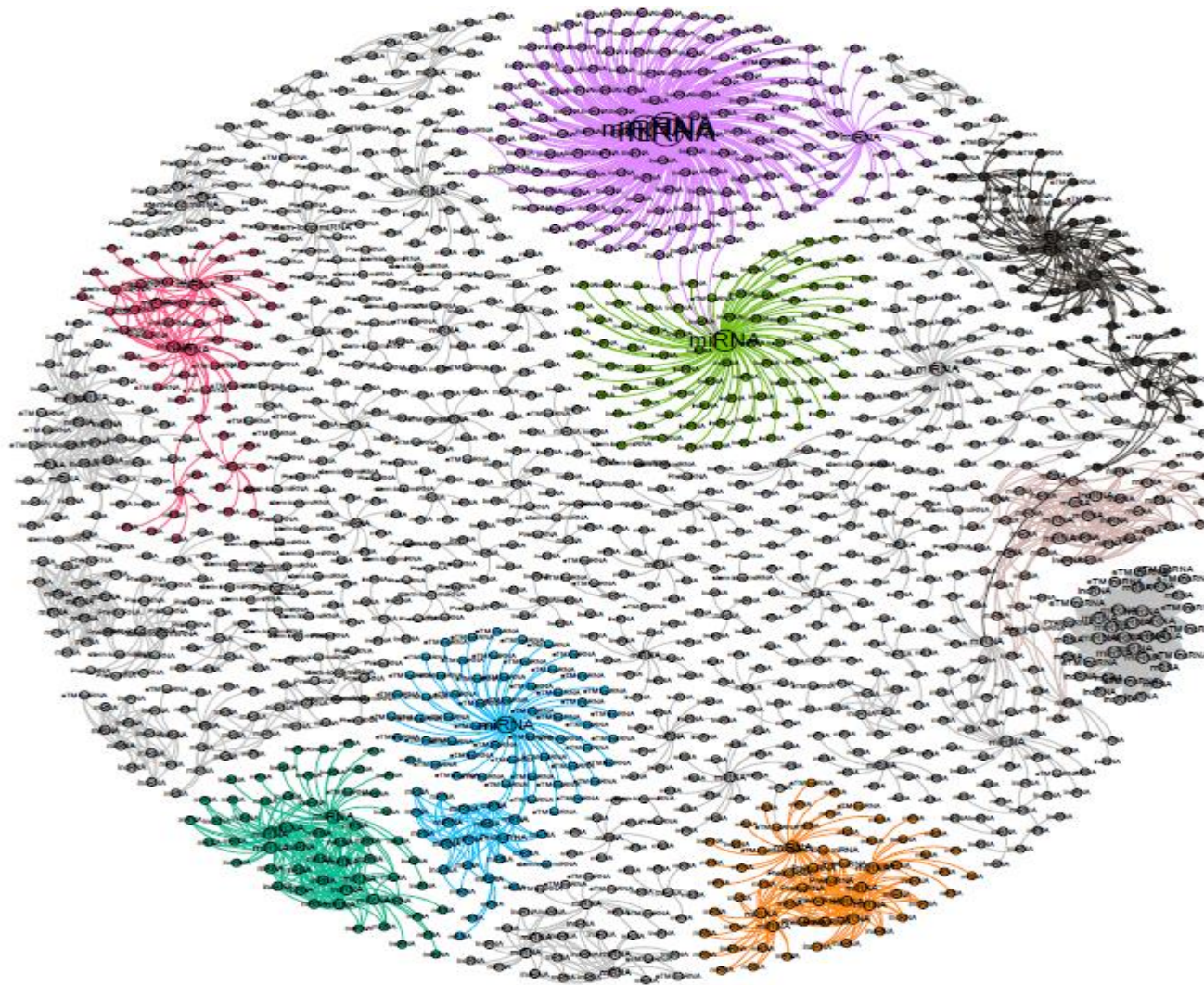
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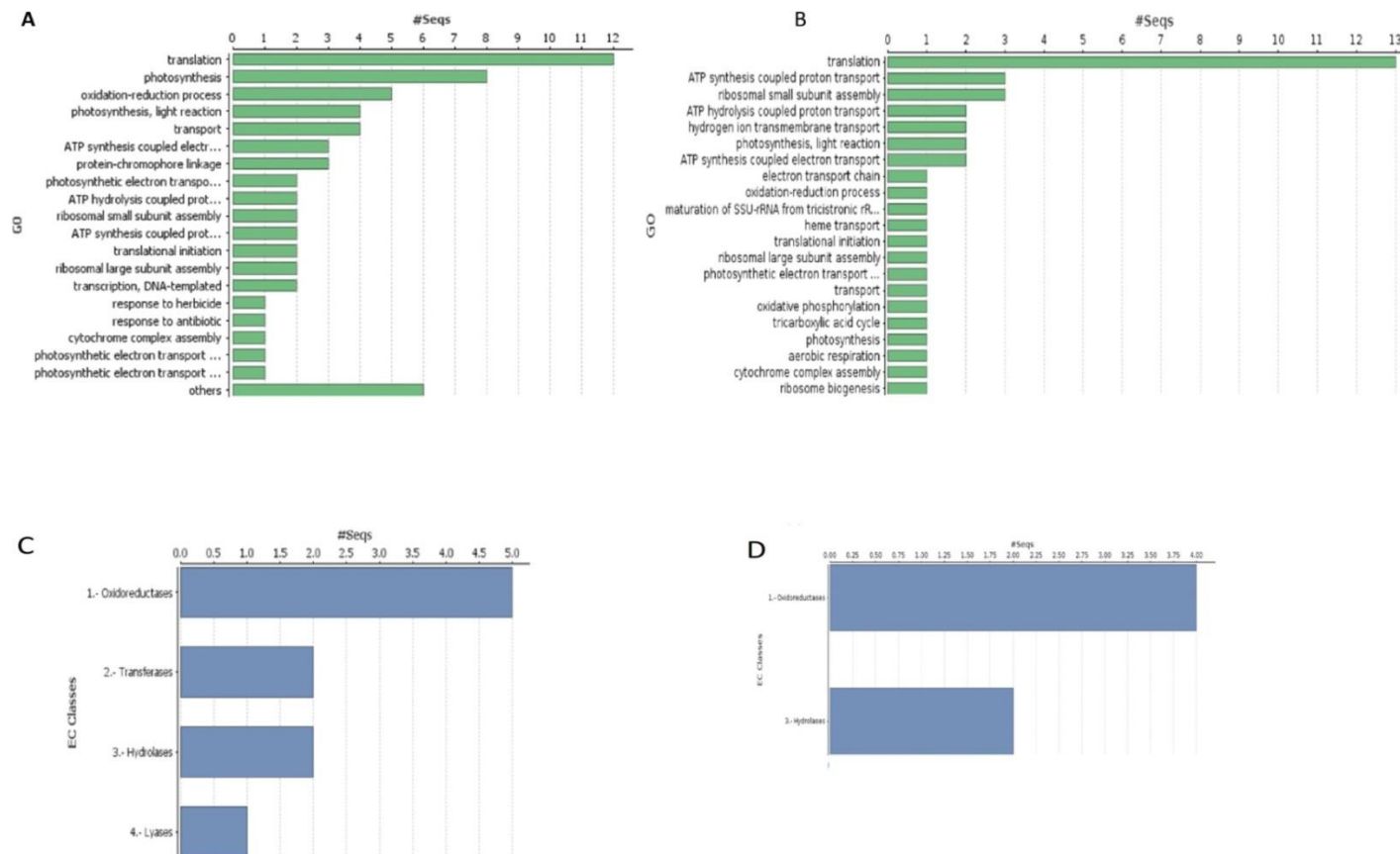
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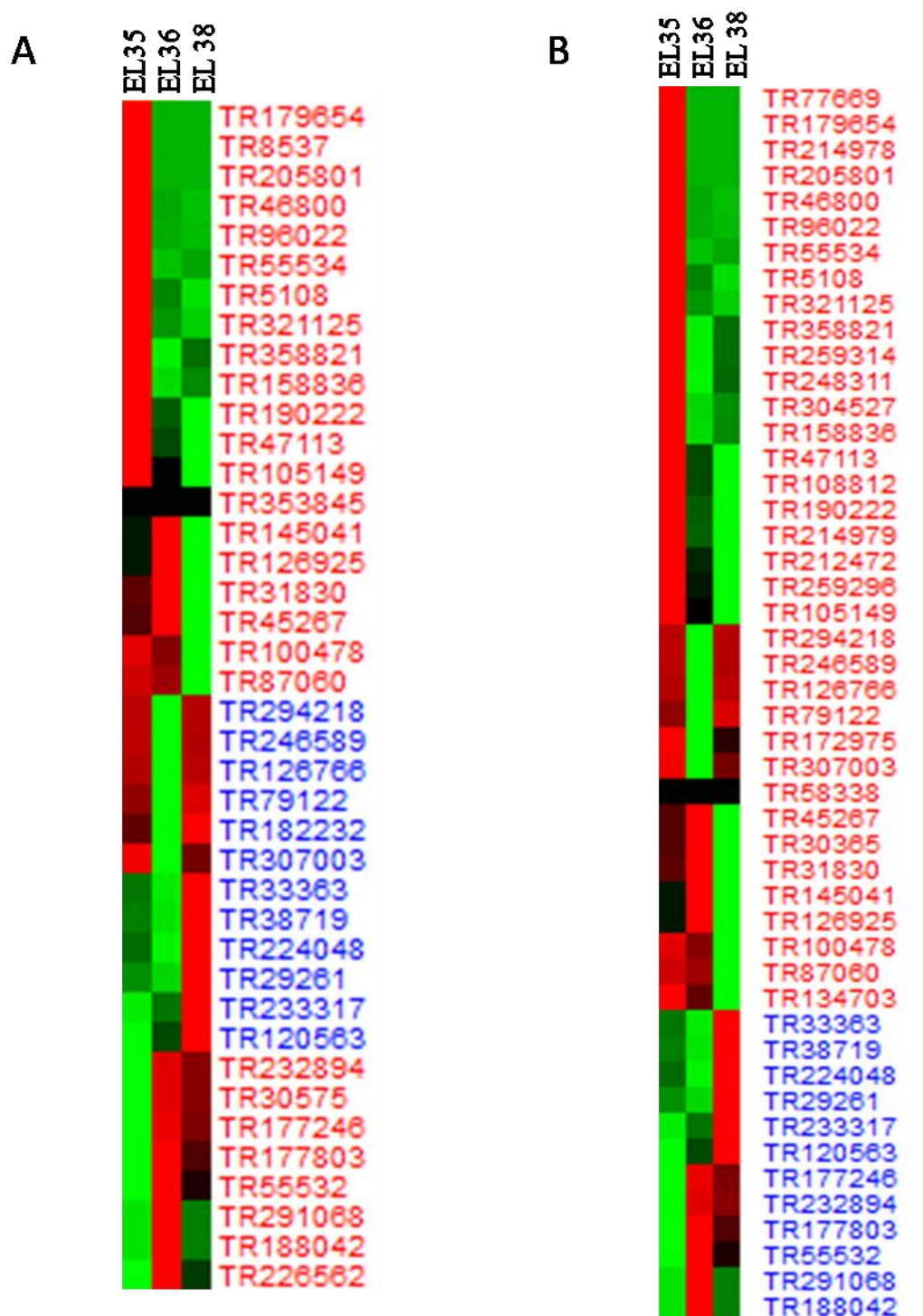
Supplementary Figure 4: The complete secondary structures of lncRNAs (A) TR167148, (B) TR29907, and (C) TR123921.



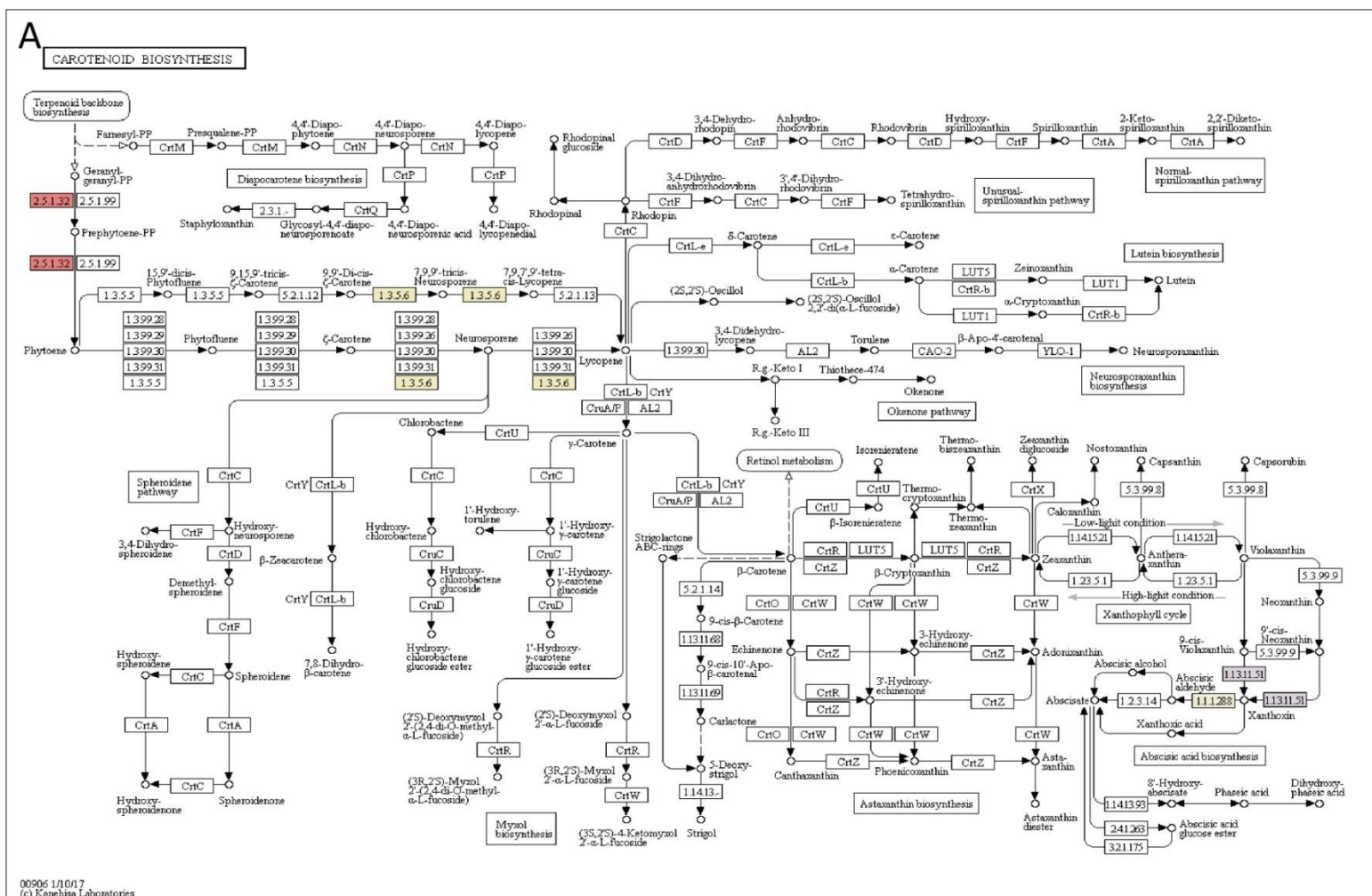
Supplementary Figure 5: The interactome comprising lncRNAs, miRNAs, and mRNAs based on their interactions as putative targets, target mimics, and precursors



Supplementary Figure 6: Top gene ontology (GO) terms representing the main biological processes involving lncRNAs co-expressing with (A) chloroplast and (B) mitochondrion coding sequences. Enzyme code distribution for the annotated sequences that is (C) chloroplast CDS and (D) mitochondrion CDS co-expressing with lncRNAs



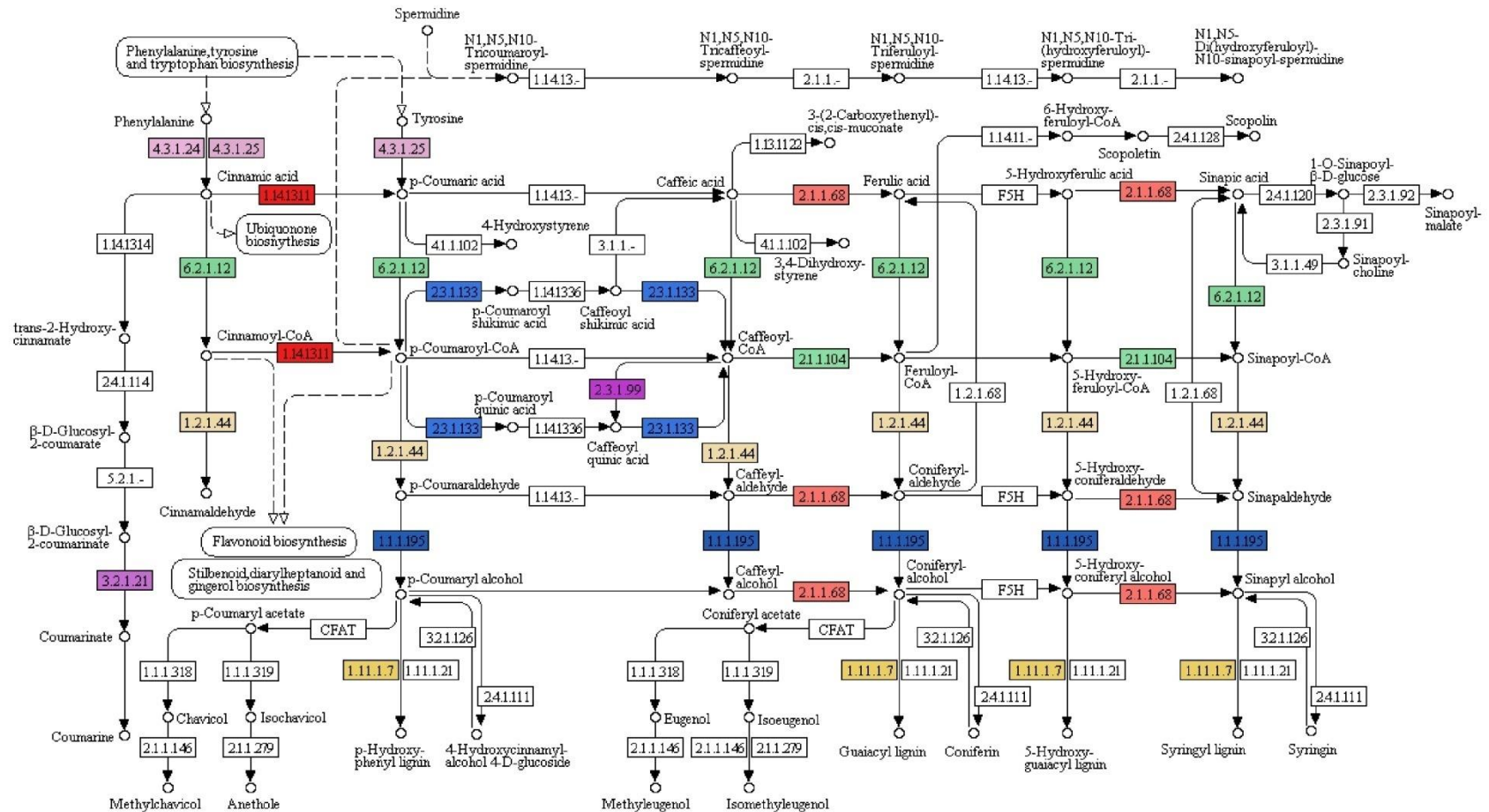
Supplementary Figure 7: Expression patterns of grapevine lncRNAs co-expressing with (A) 9-*cis*-epoxy-carotenoid dioxygenase (NCED) and (B) zeaxanthin epoxidase (ZEP)



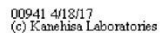
Supplementary Figure 8: CDS co-expressing with lncRNAs and coding for enzymes (indicated by shaded boxes) involved in (A) carotenoid, (B) phenylpropanoid (C) flavonoid, and (D) stilbenoid biosynthesis pathways. The images have been obtained using KEGG¹ map module in BLAST2GO² software

B

PHENYLPROPANOID BIOSYNTHESIS

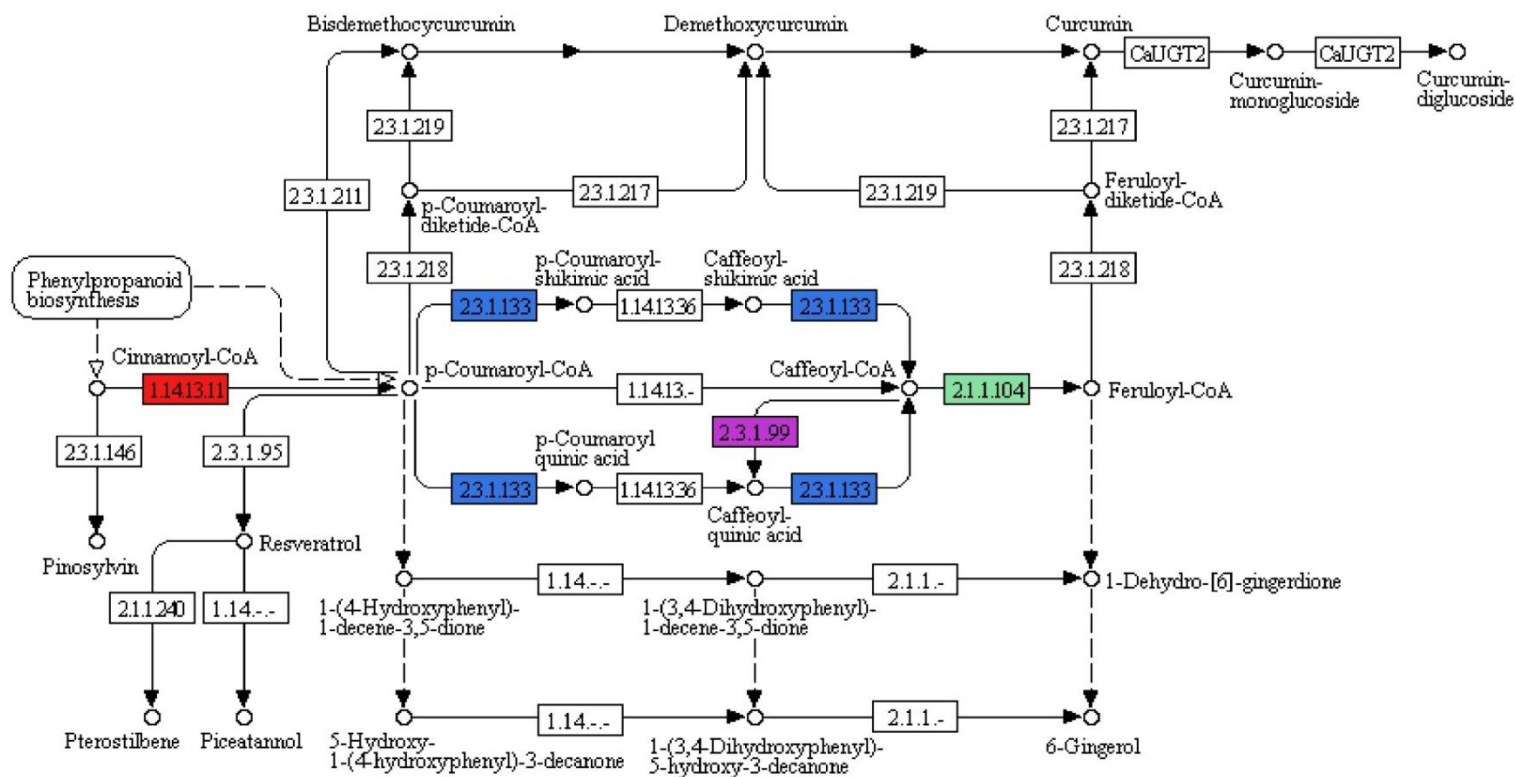


FLAVONOID BIOSYNTHESIS



D

STILBENOID, DIARYLHEPTANOID AND GINGEROL BIOSYNTHESIS



References for Supplementary Information:

1. Kanehisa, M., Furumichi, M., Tanabe, M., Sato, Y., and Morishima, K.; KEGG: new perspectives on genomes, pathways, diseases and drugs. *Nucleic Acids Research*, 45, D353-D361 (2017)
2. Conesa, A. and Götz, S. Blast2GO: A comprehensive suite for functional analysis in plant genomics. *International Journal of Plant Genomics*, 2008 (2008).