

# A comprehensive analysis of the *Lactuca sativa*, L. transcriptome during different stages of the compatible interaction with *Rhizoctonia solani*

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<sup>1</sup>Center for Biotechnology, Bielefeld University, Bielefeld, Germany

<sup>2</sup>Leibniz-Institute of Vegetable and Ornamental Crops (IGZ), Großbeeren, Germany

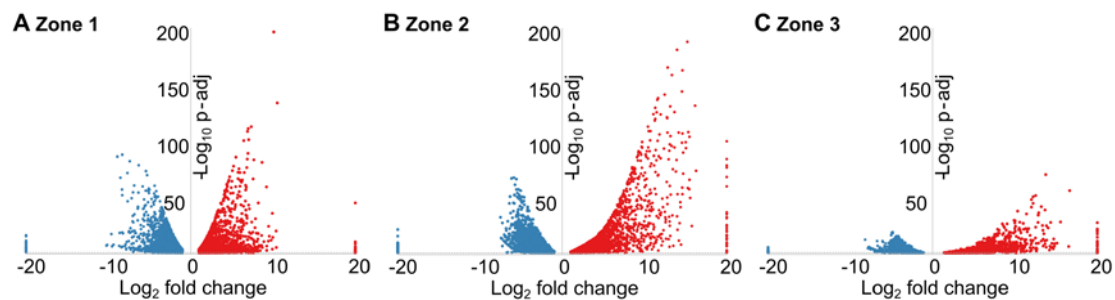
<sup>3</sup>Current address, department of Computational Biology, Bielefeld University, Bielefeld, Germany

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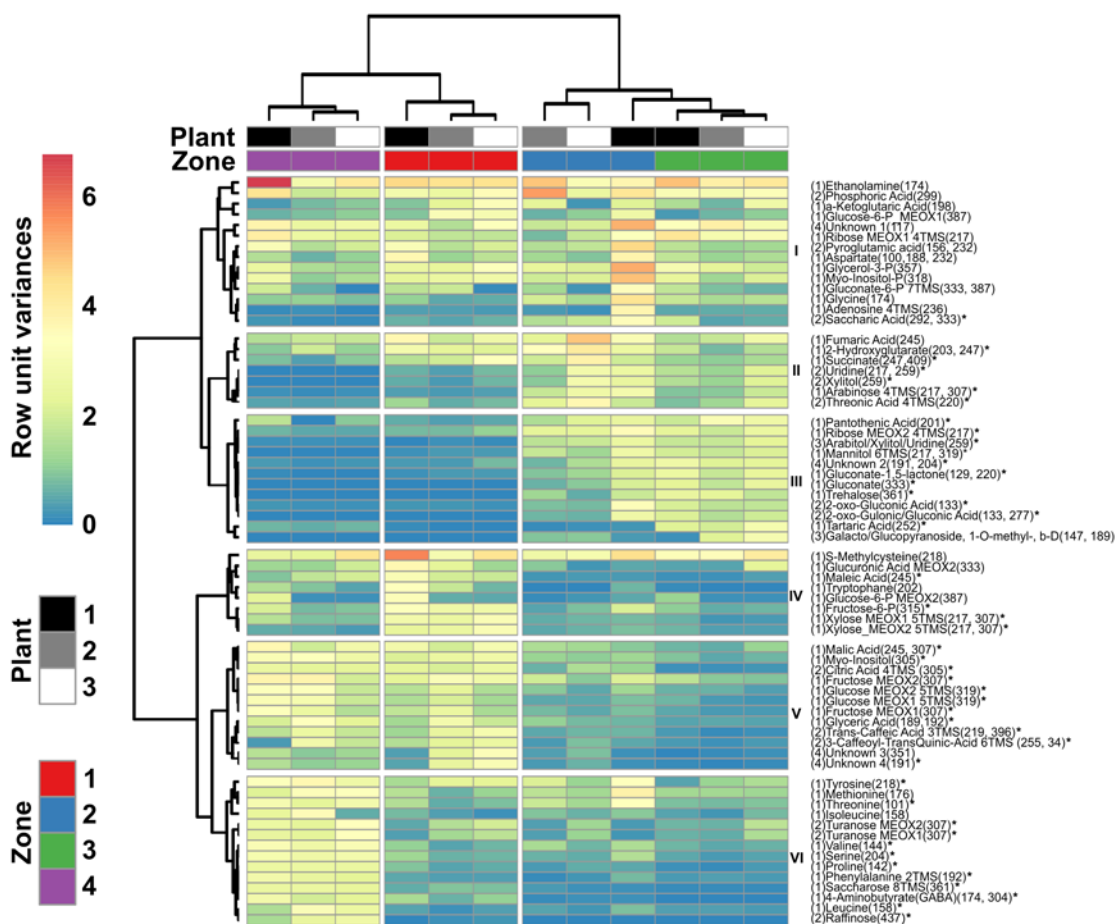
Supplementary Figure S1

Supplementary Figure S2

Supplementary Figure S3



Supplementary Figure S1: DESeq based volcano plots depicting the differentially expressed genes of *L. sativa* between the interaction zones 1, 2 and 3 in comparison to the control (zone 4).

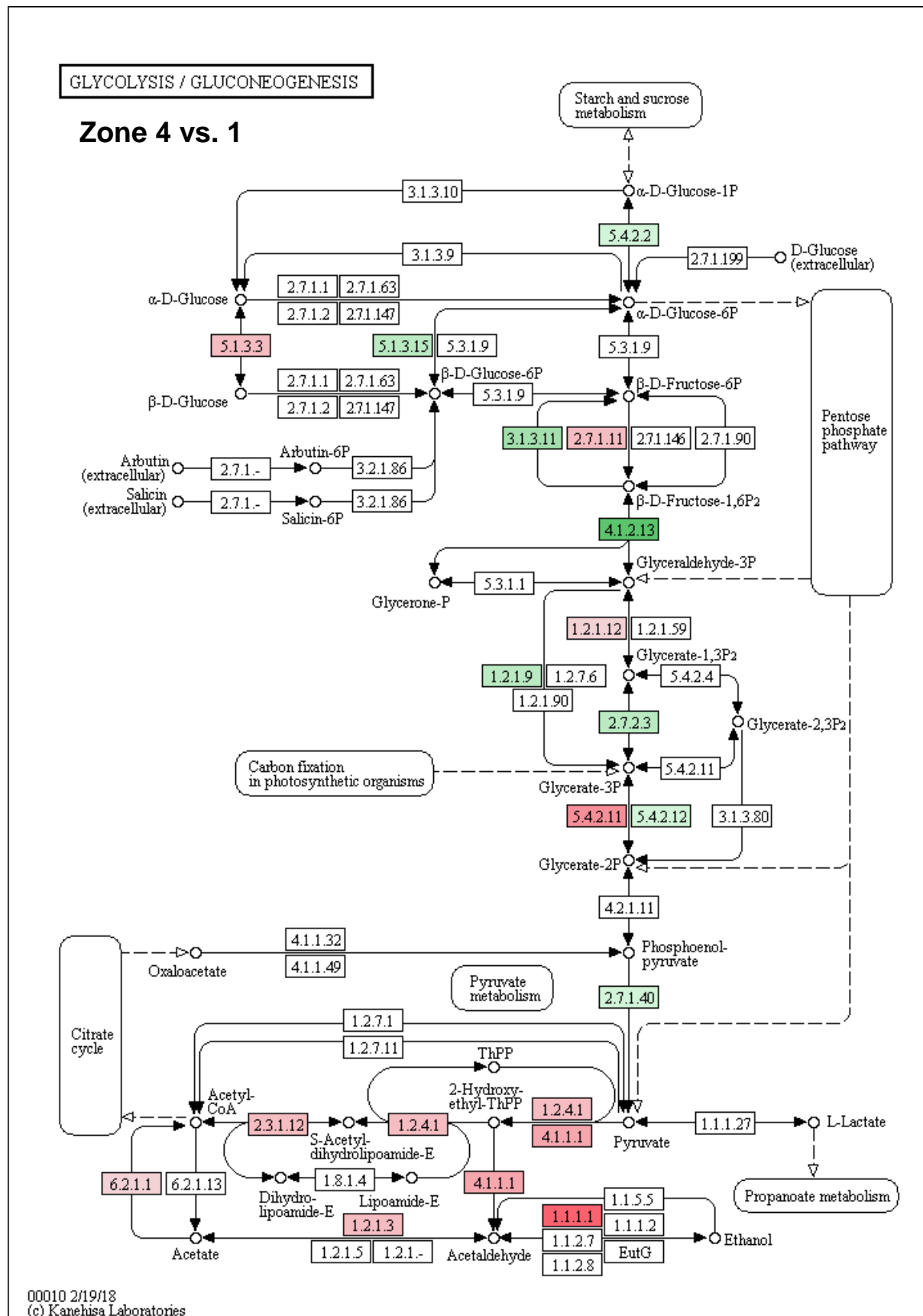
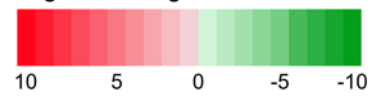


Supplementary Figure S2: Enlarged depiction of Figure 6B. Metabolite based heat map; unite variance scaling was applied on rows and Ward clustering was used for rows and columns<sup>31</sup>. The designations of single metabolites include the indicator of the level of identification within the first brackets, according to the reporting standards as proposed by the Metabolomics Standards Initiative<sup>41</sup> ranging from (1): identified by the measurement of the chemical reference standard, (2): putatively identified by significant database hit, (3) putatively characterized by database hit as compound of a certain chemical class, (4): unknown compound. The chemical name of the compound is accompanied in relevant cases by the information concerning the derivatization status (MEOX,TMS). The last brackets indicate the m/z values, which have been used for the identification and the integration of the signals corresponding to the given metabolite. The asterisks indicate significance as tested with ANOVA.

# KAAS Kegg mapping of *L. sativa* cv. Tizian DEG's

Only DEG's with p-adjusted values of 0.05 or smaller and absolute fold changes of 2 or higher are depicted

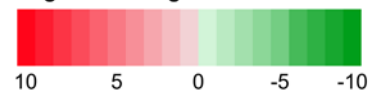
Log2 fold change



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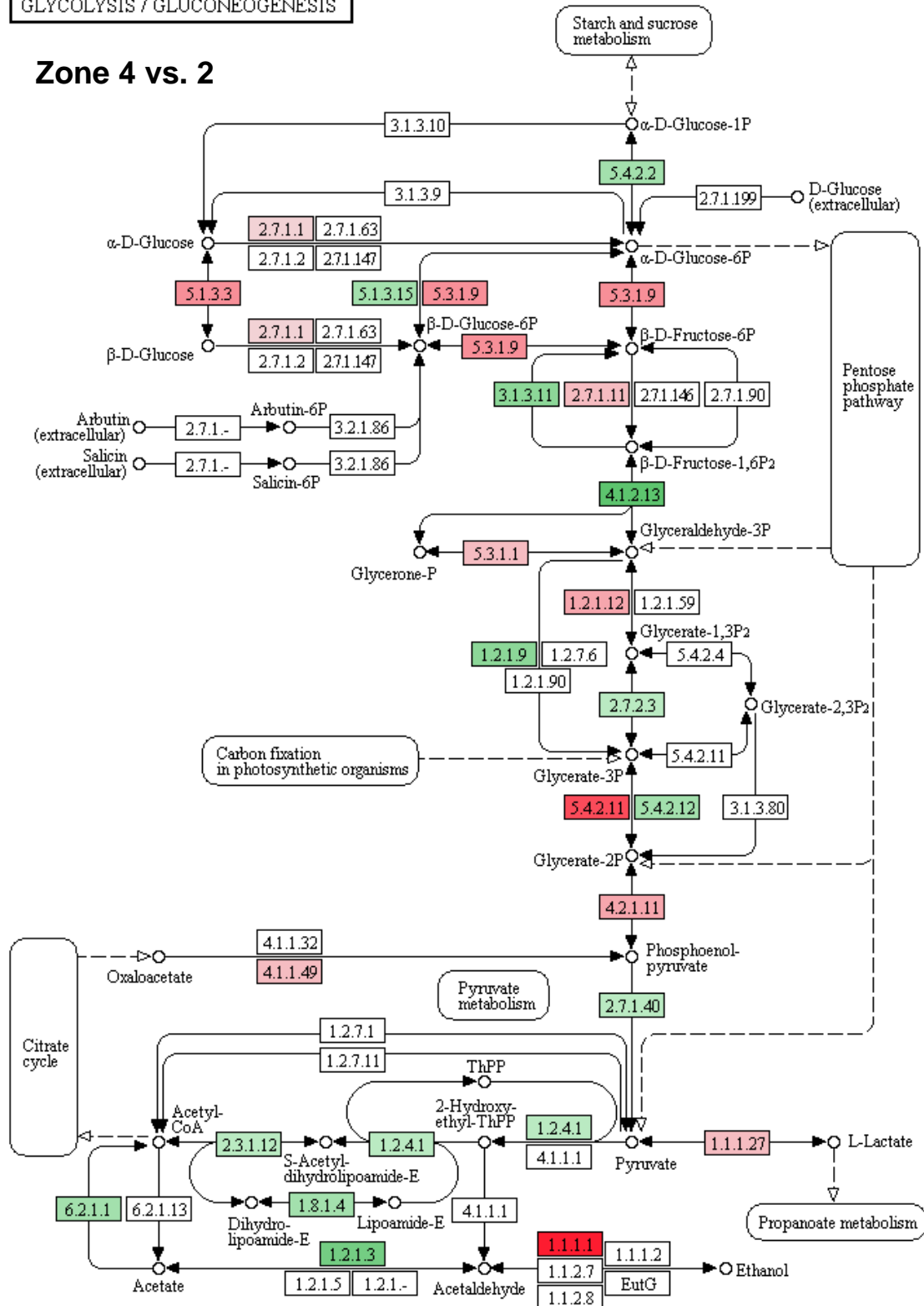
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## GLYCOLYSIS / GLUCONEOGENESIS

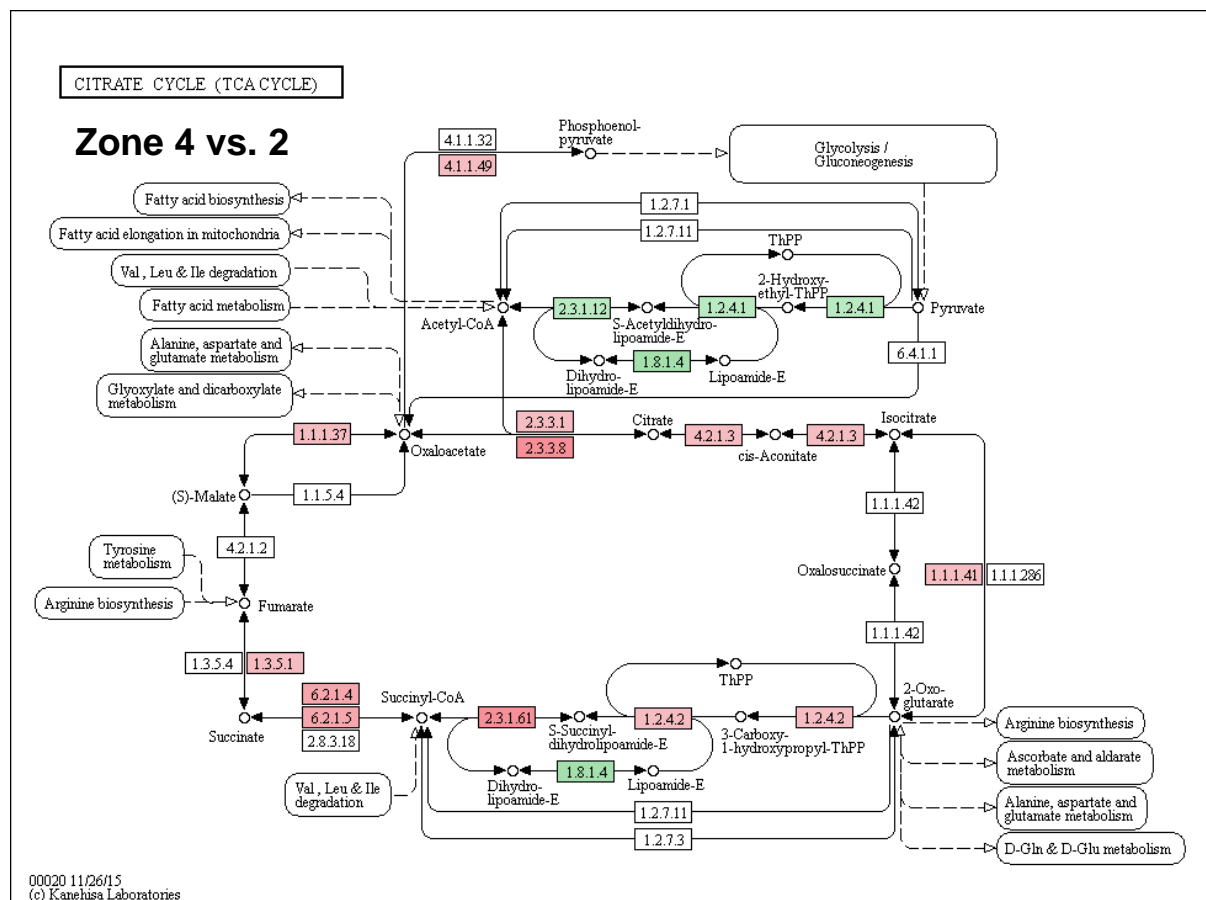
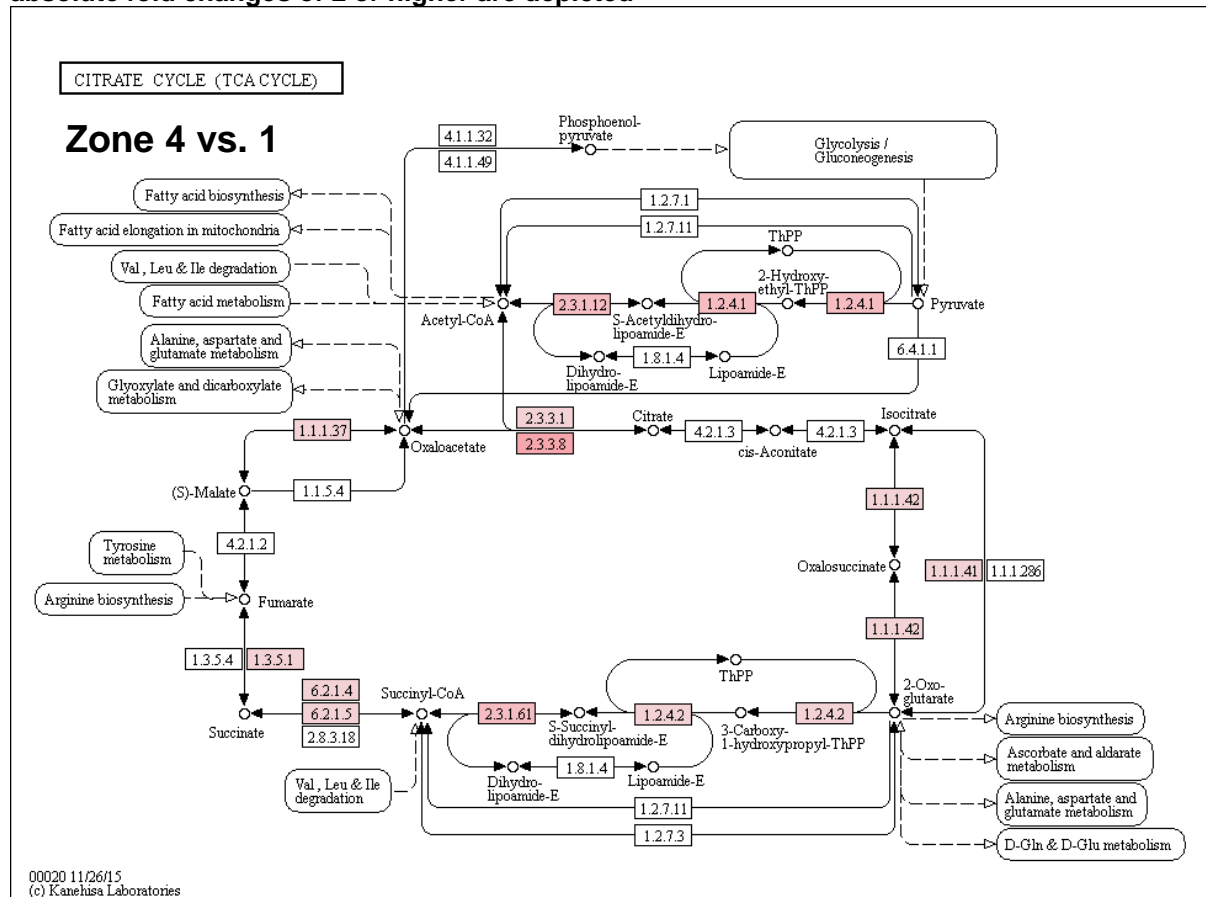
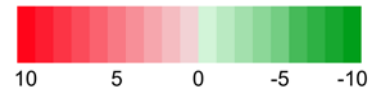
### Zone 4 vs. 2



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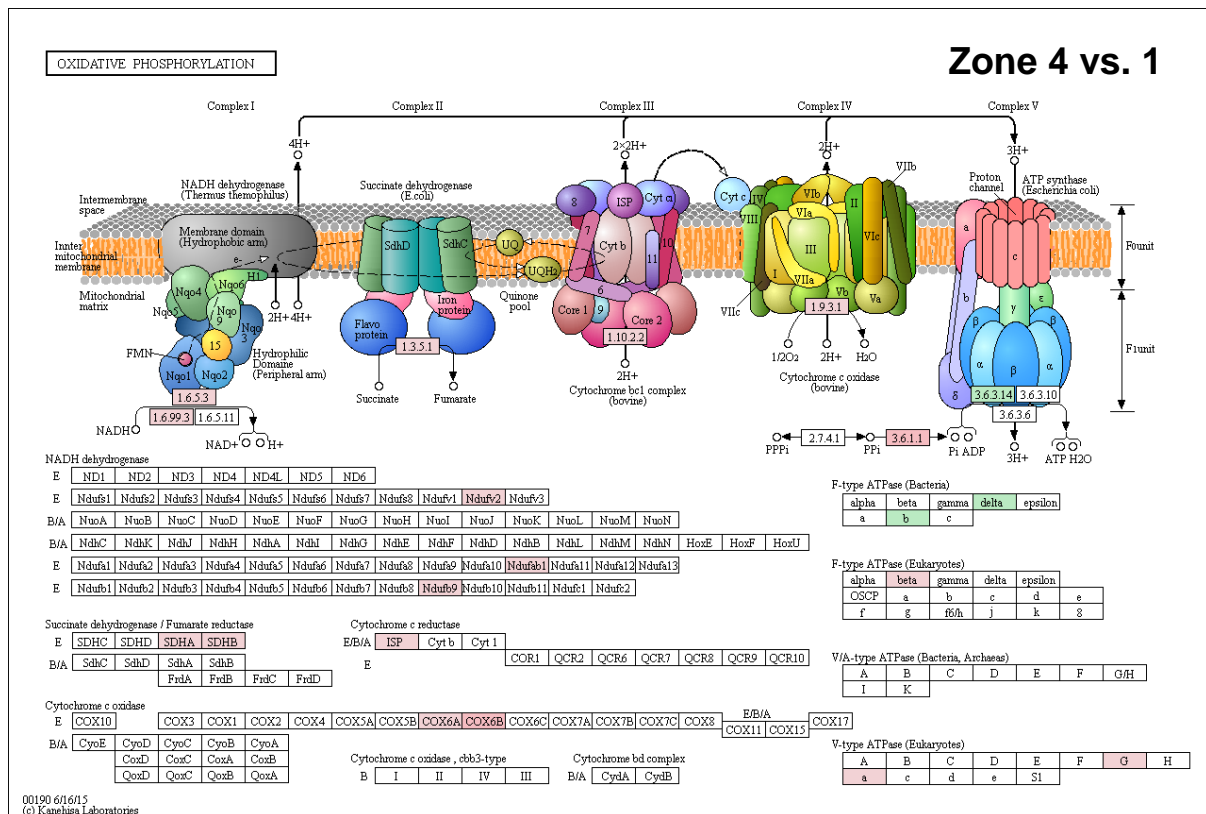
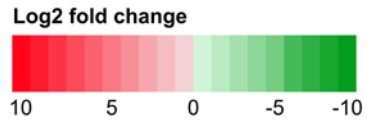
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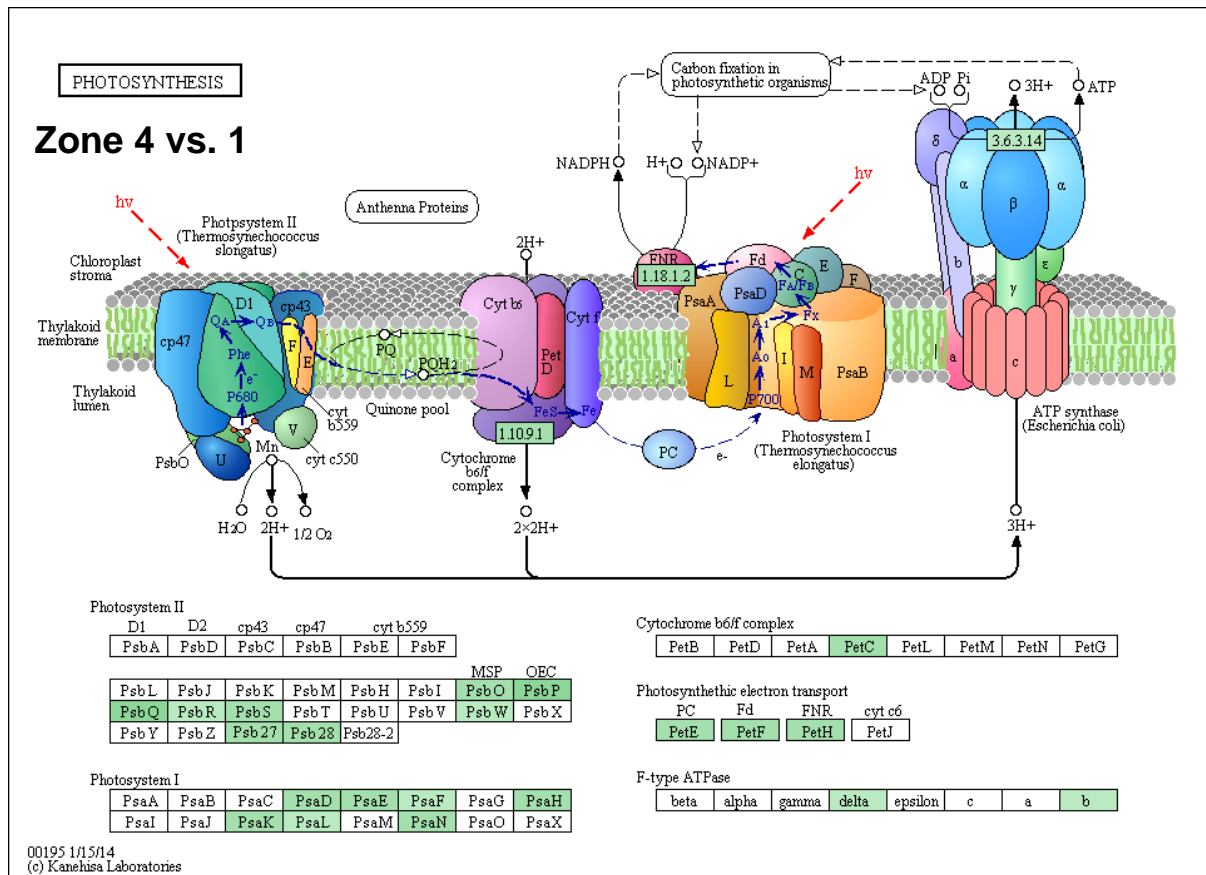
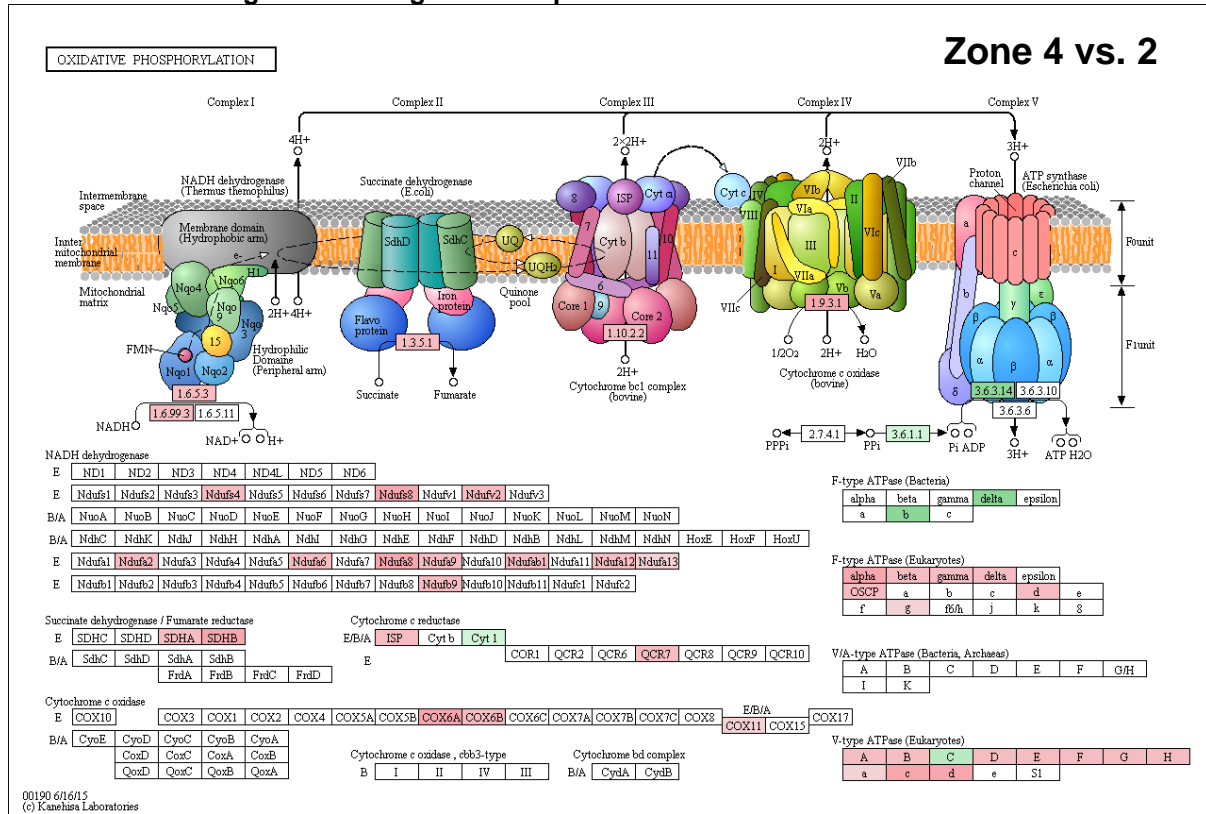
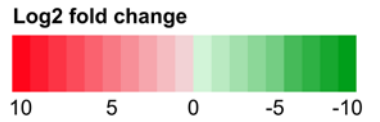
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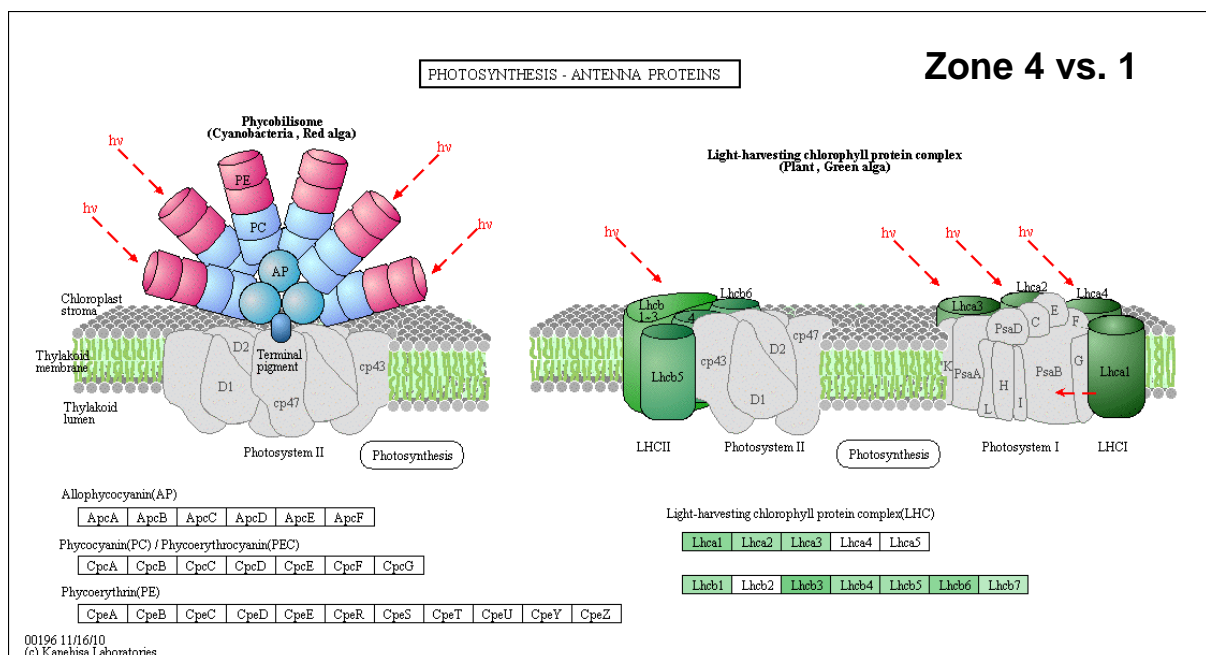
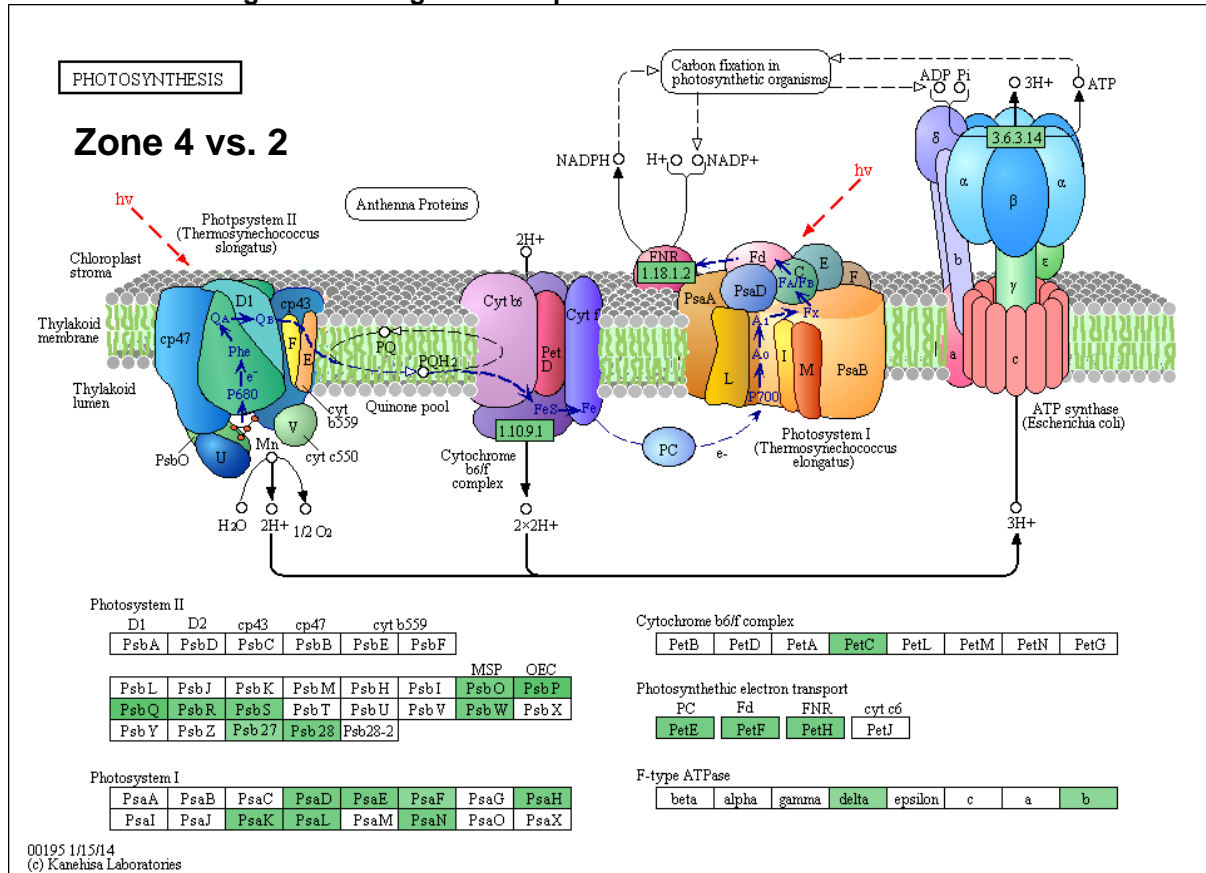
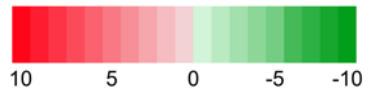
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Log2 fold change

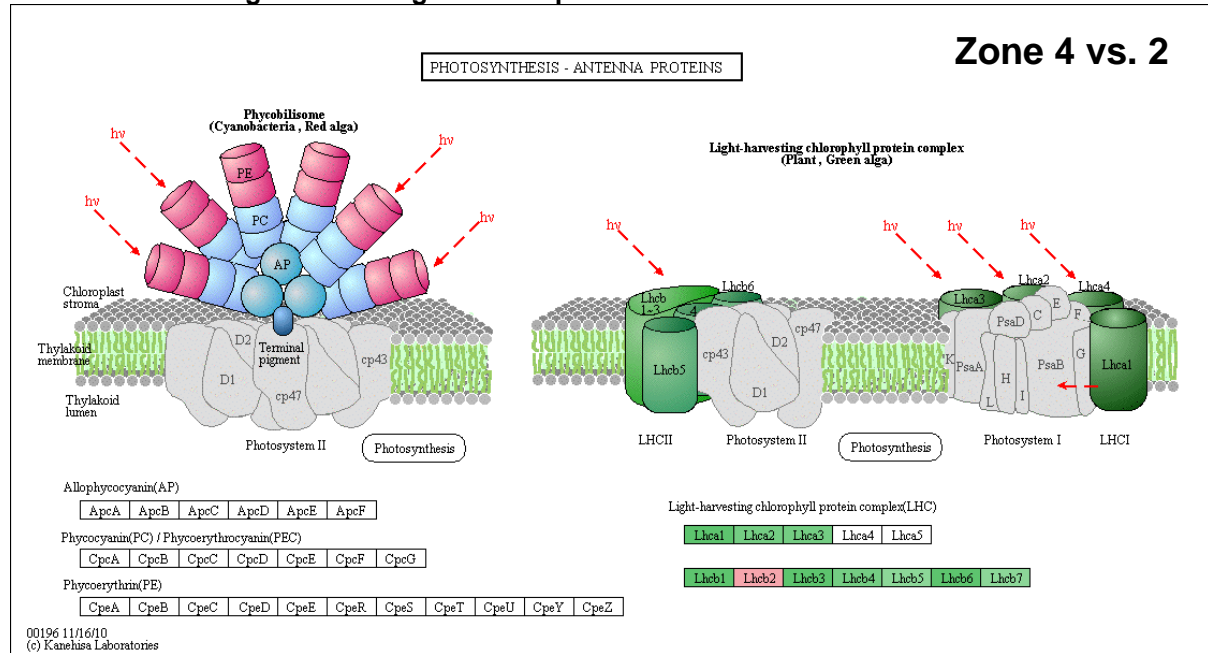
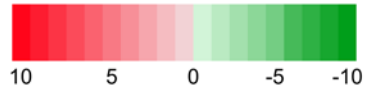




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Log2 fold change



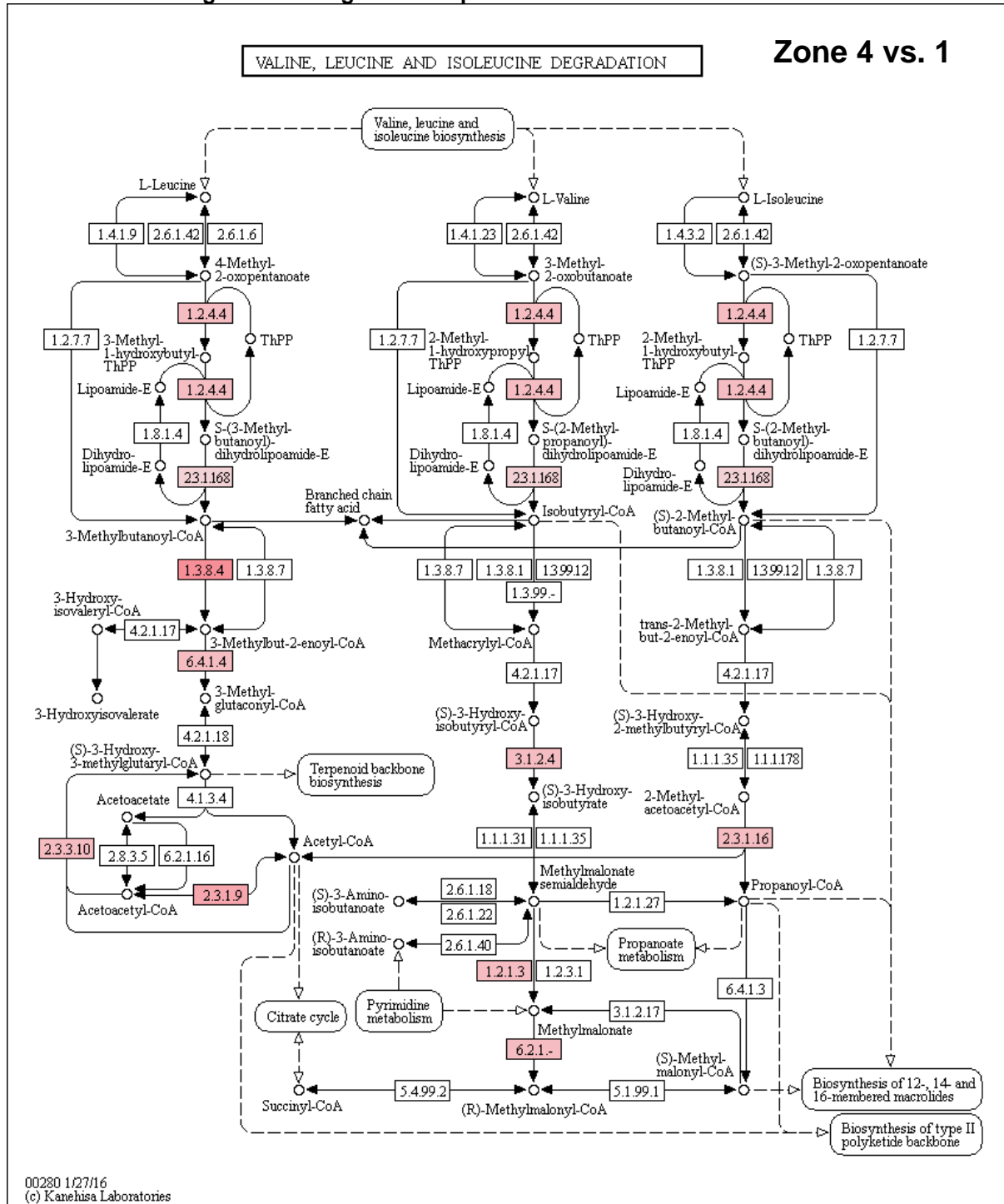
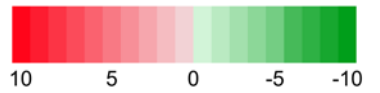




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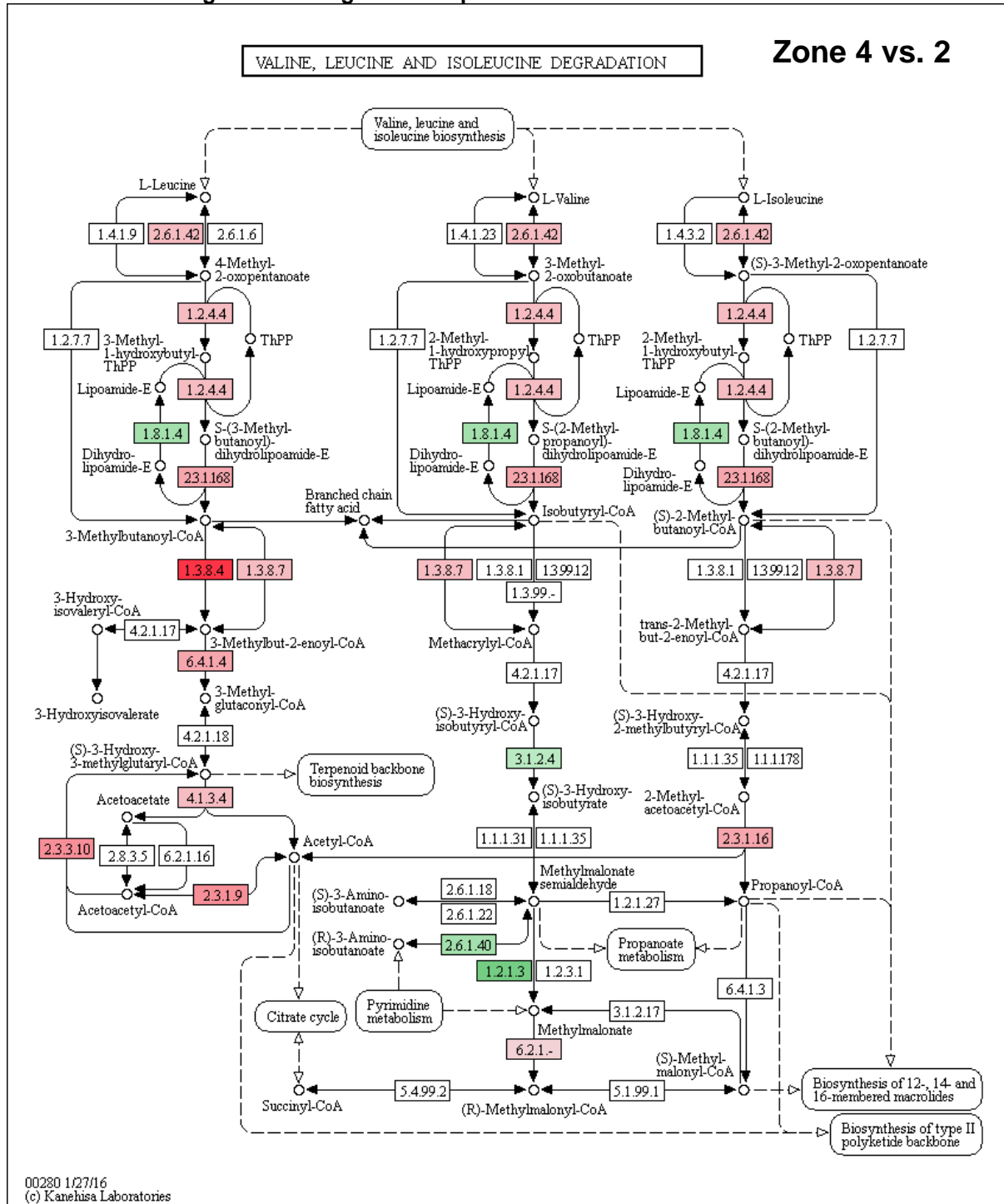
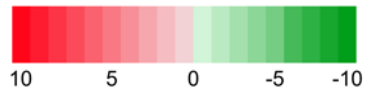
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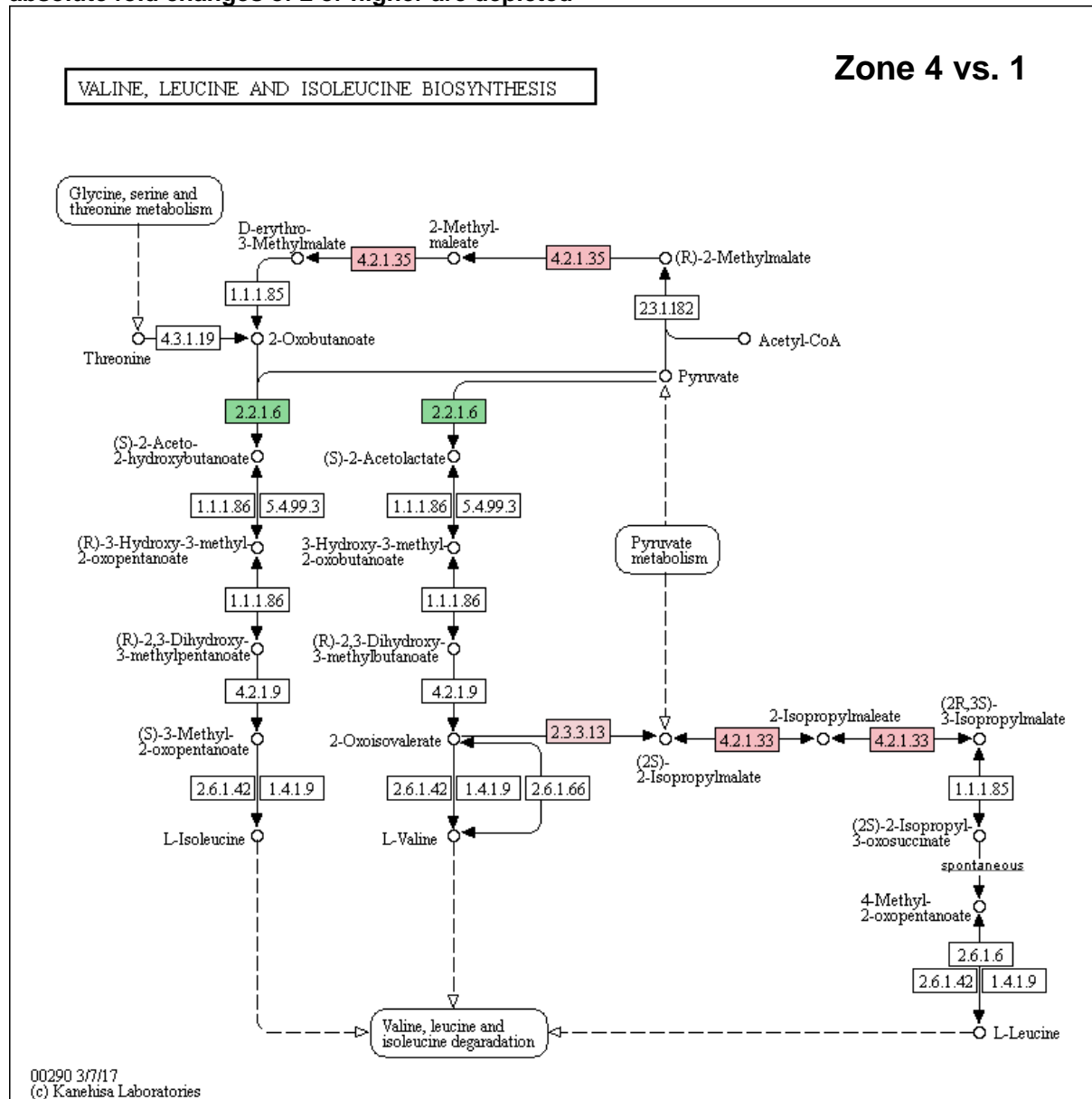
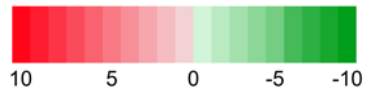
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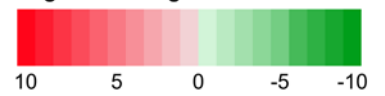
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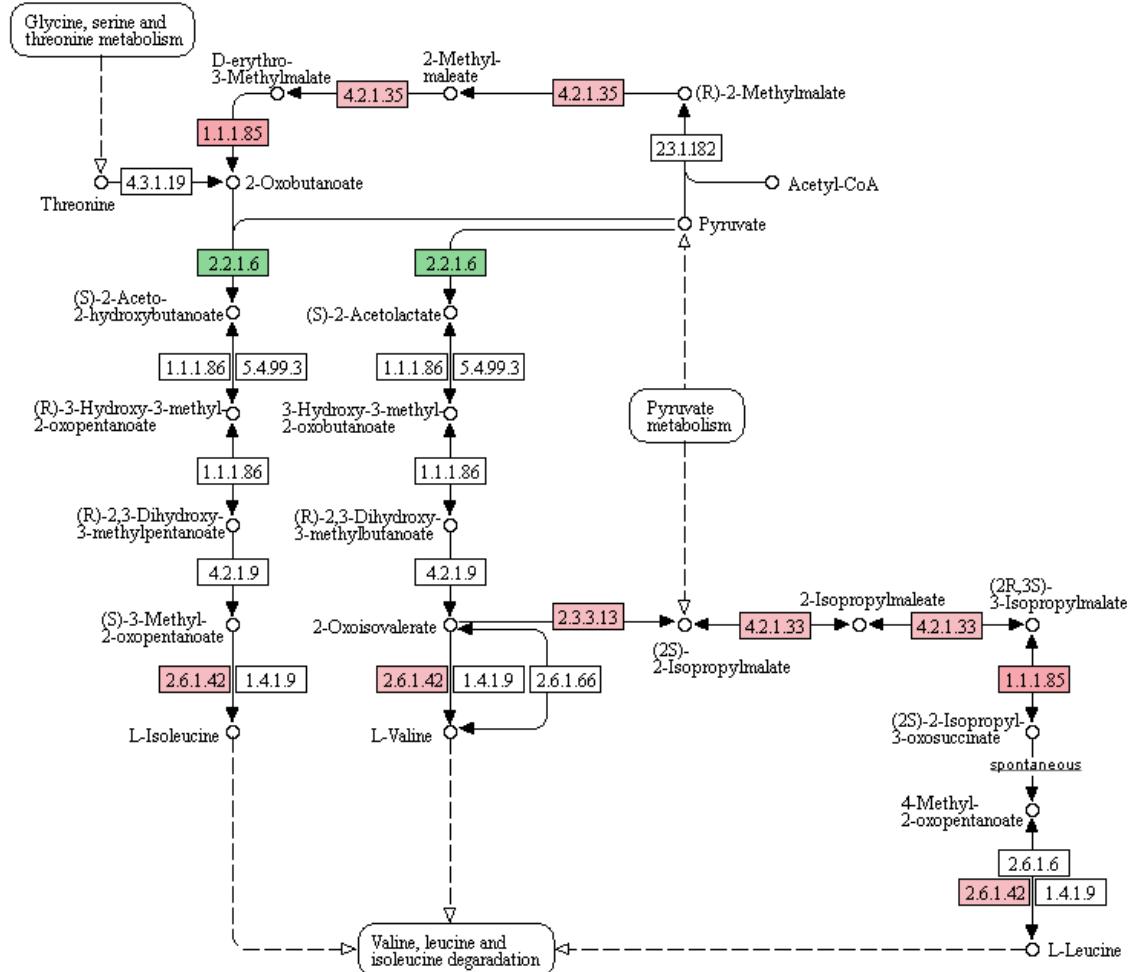
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Log2 fold change



## Zone 4 vs. 2

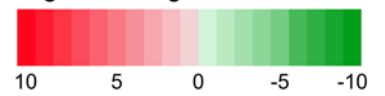
### VALINE, LEUCINE AND ISOLEUCINE BIOSYNTHESIS



# KAAS Kegg mapping of *L. sativa* cv. Tizian DEG's

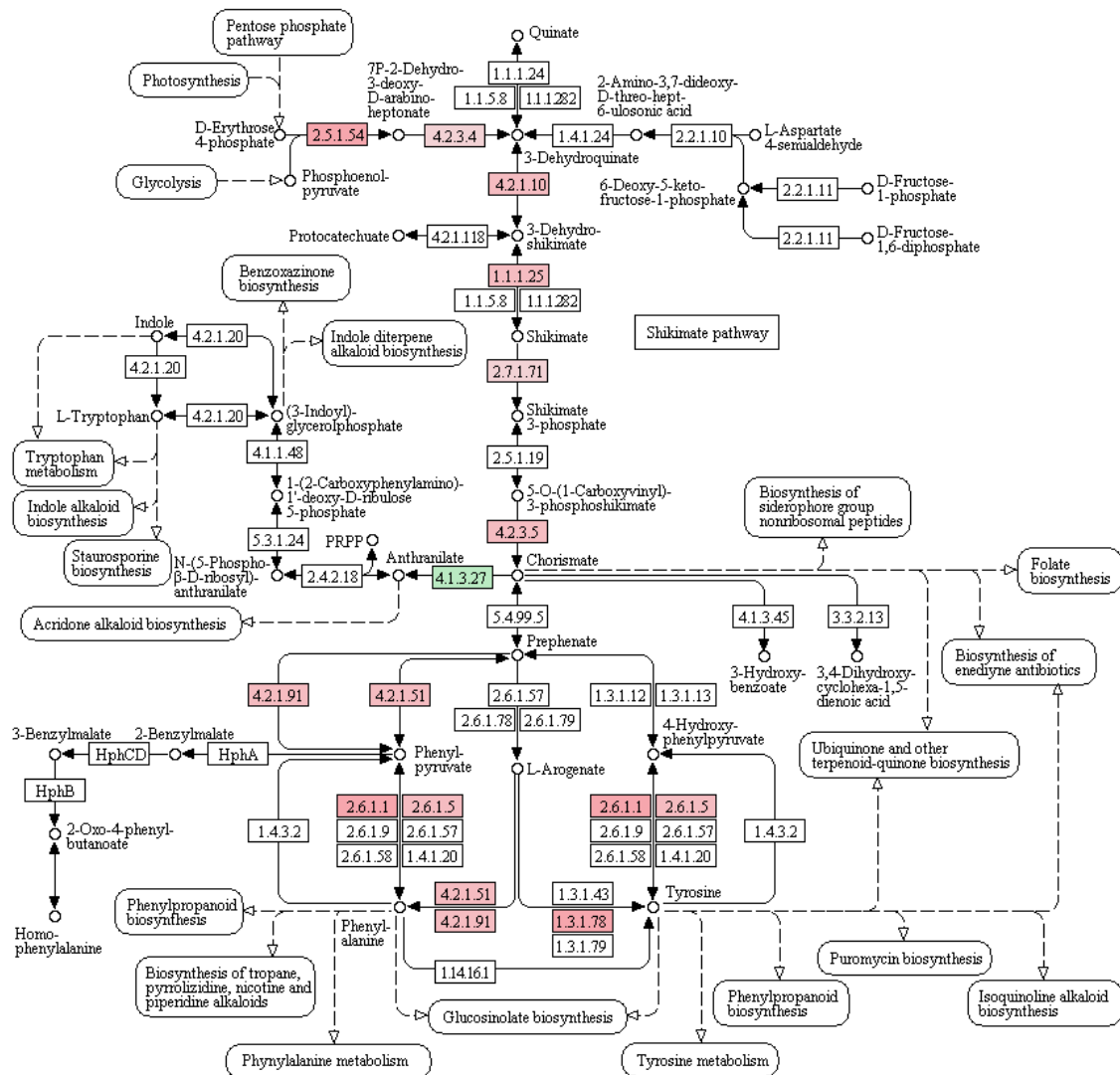
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Log2 fold change



## PHENYLALANINE, TYROSINE AND TRYPTOPHAN BIOSYNTHESIS

Zone 4 vs. 1



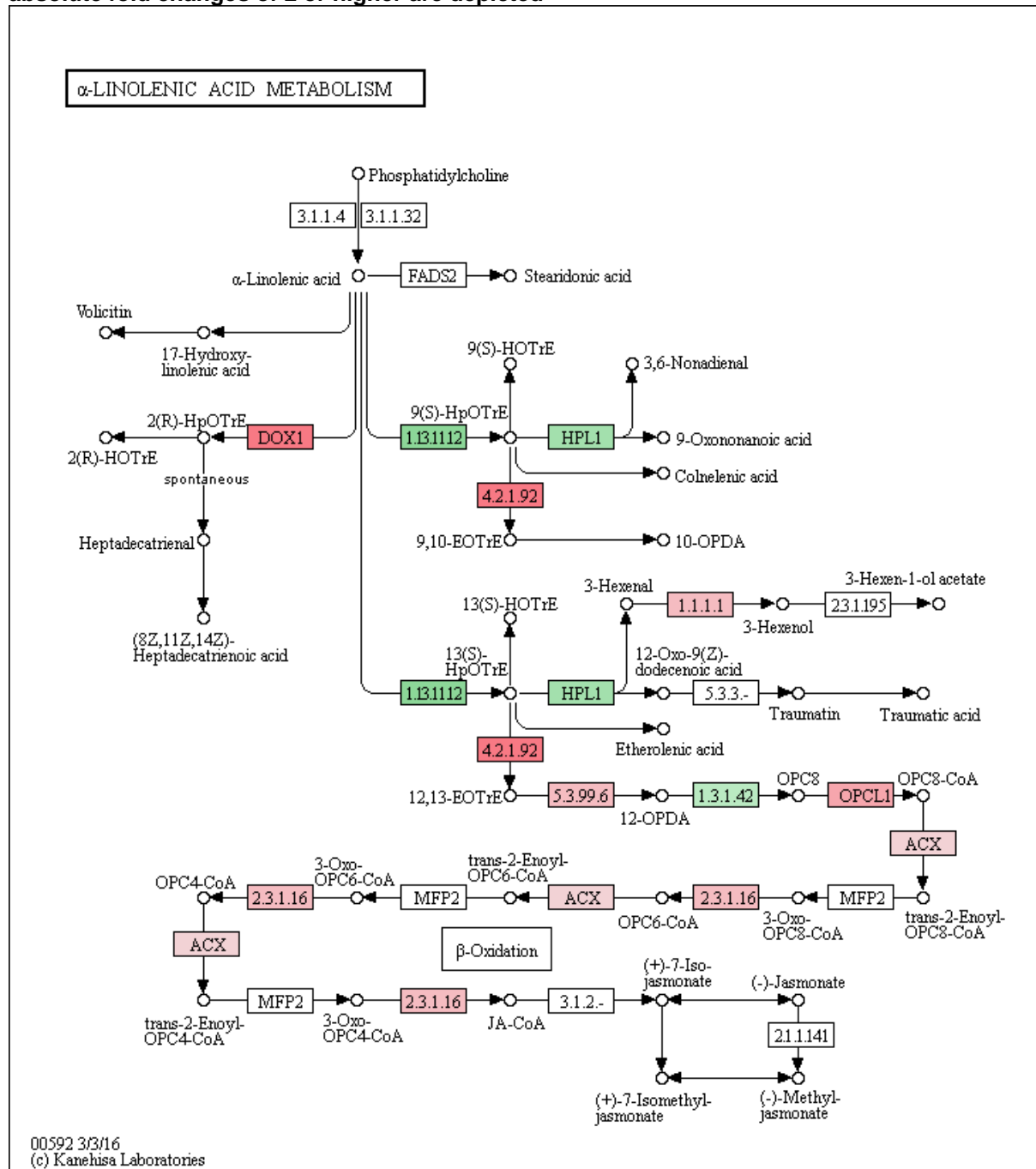
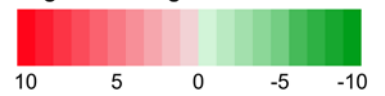




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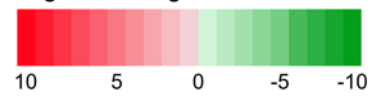
Log2 fold change



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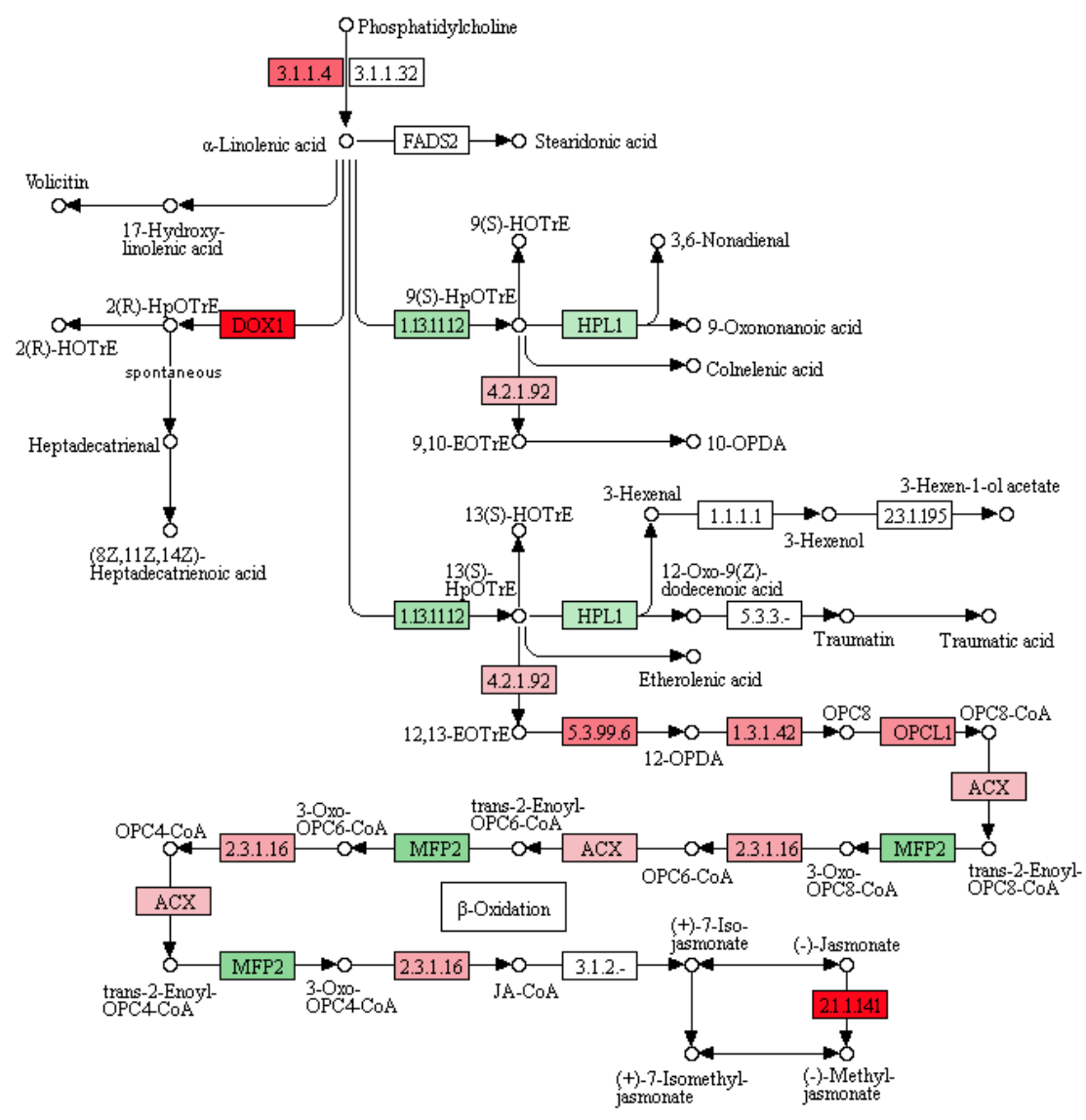
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Log2 fold change



## Zone 4 vs. 2

### $\alpha$ -LINOLENIC ACID METABOLISM

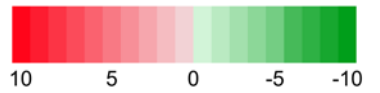


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(c) Kanehisa Laboratories

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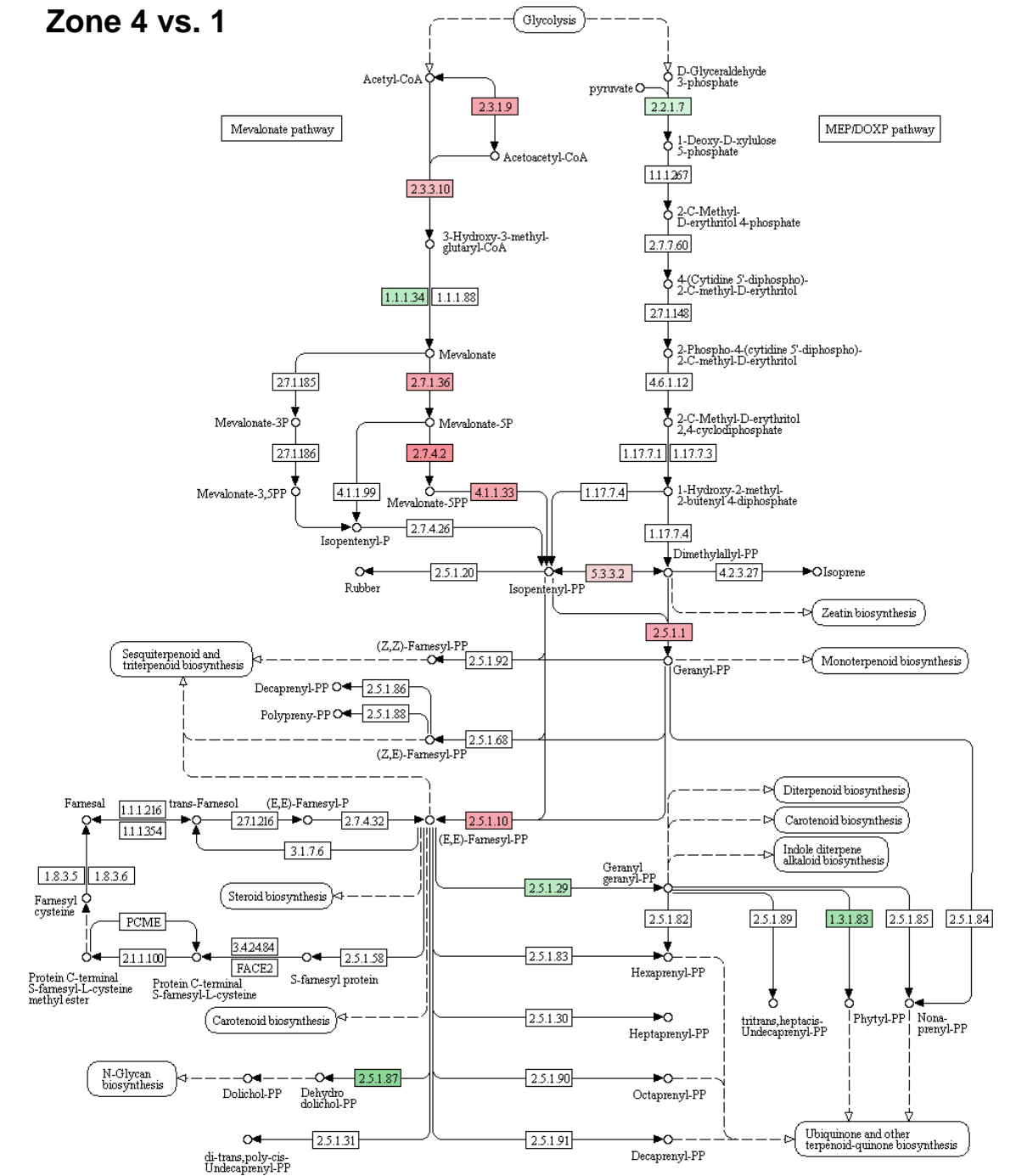
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TERPENOID BACKBONE BIOSYNTHESIS

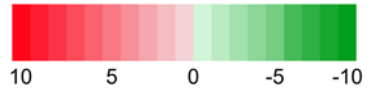
## Zone 4 vs. 1



# KAAS Kegg mapping of *L. sativa* cv. Tizian DEG's

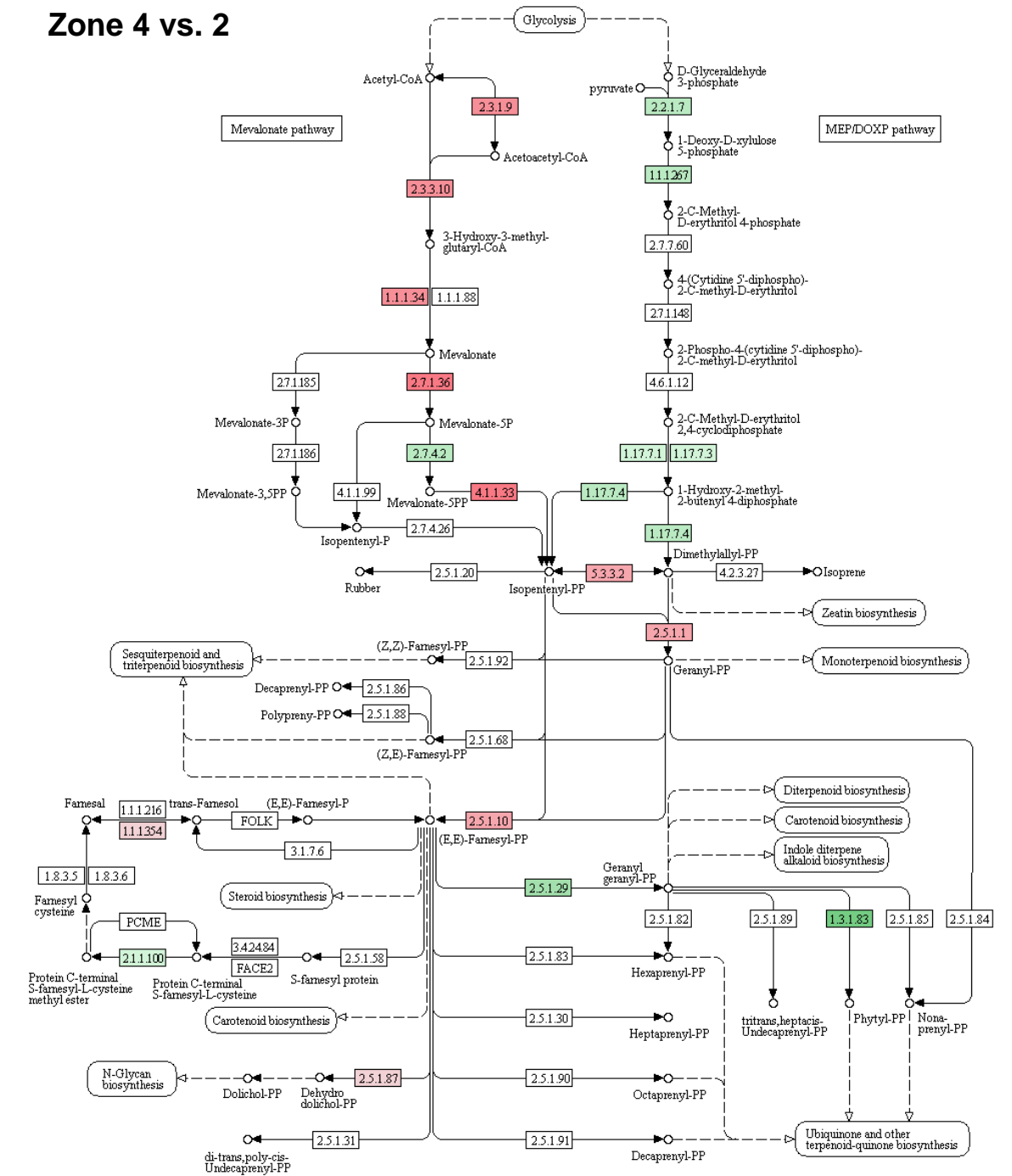
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Log2 fold change



## TERPENOID BACKBONE BIOSYNTHESIS

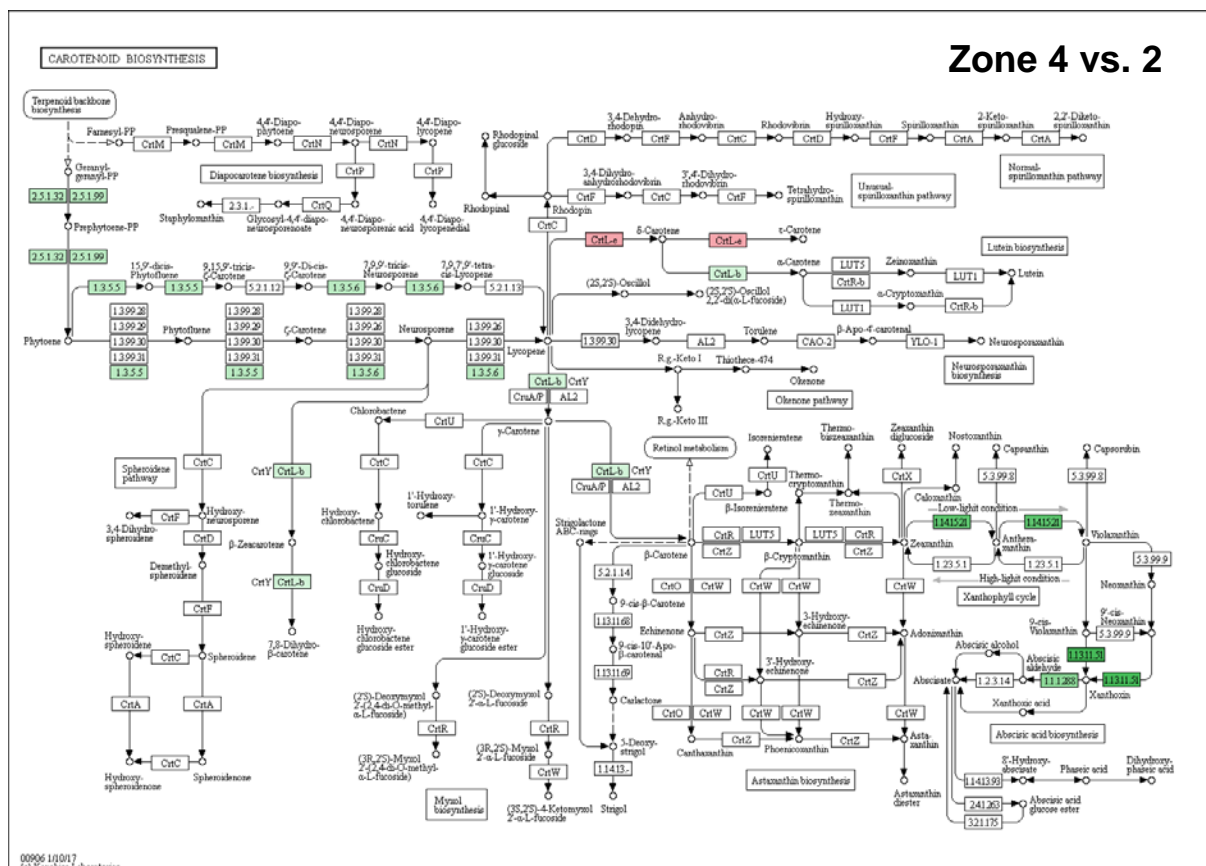
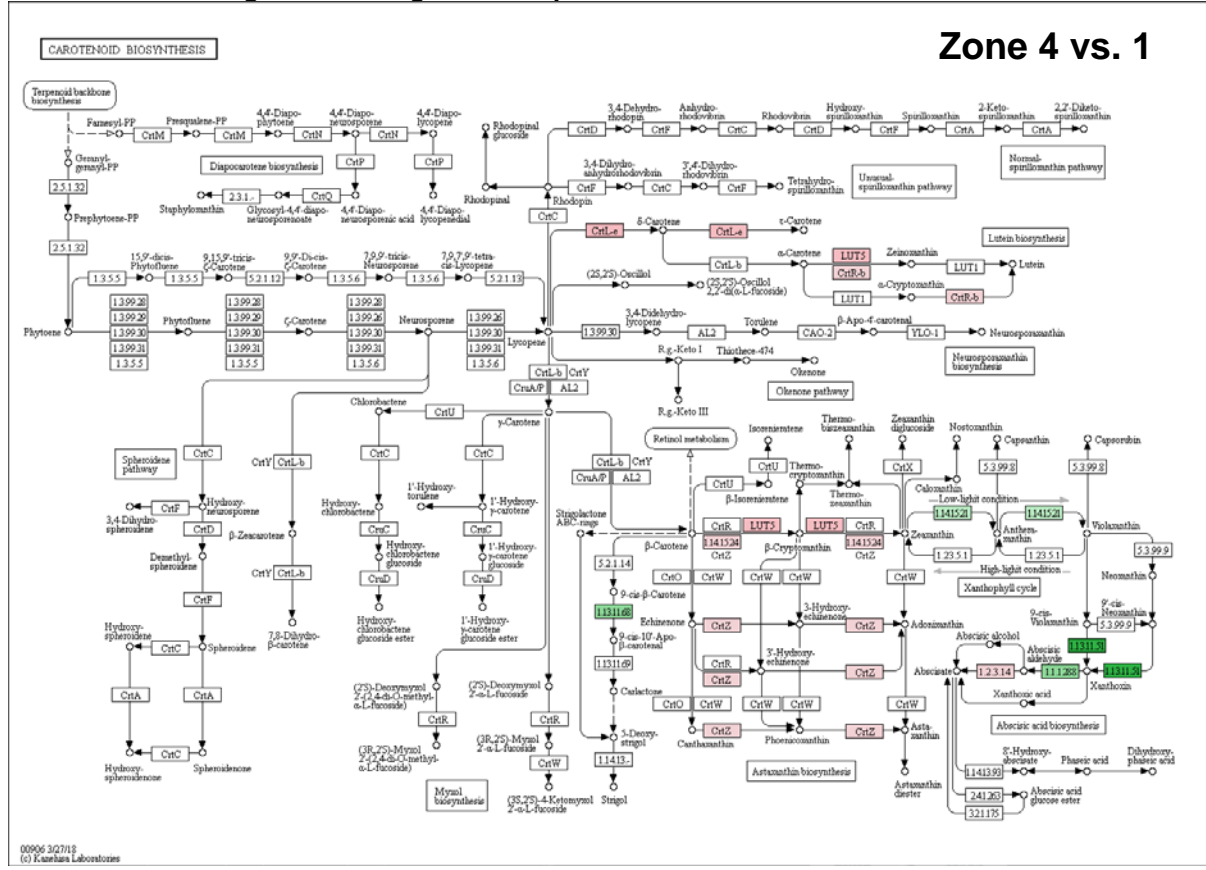
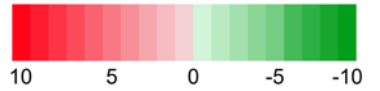
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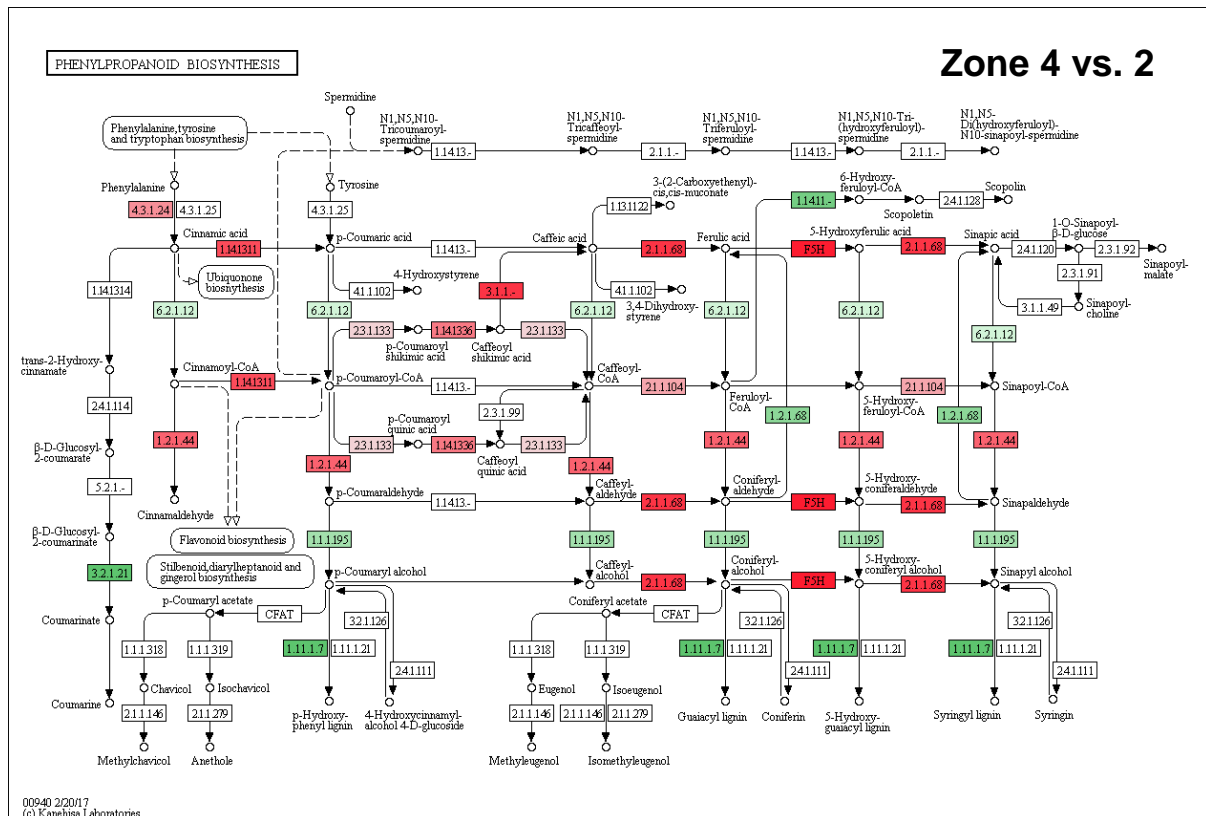
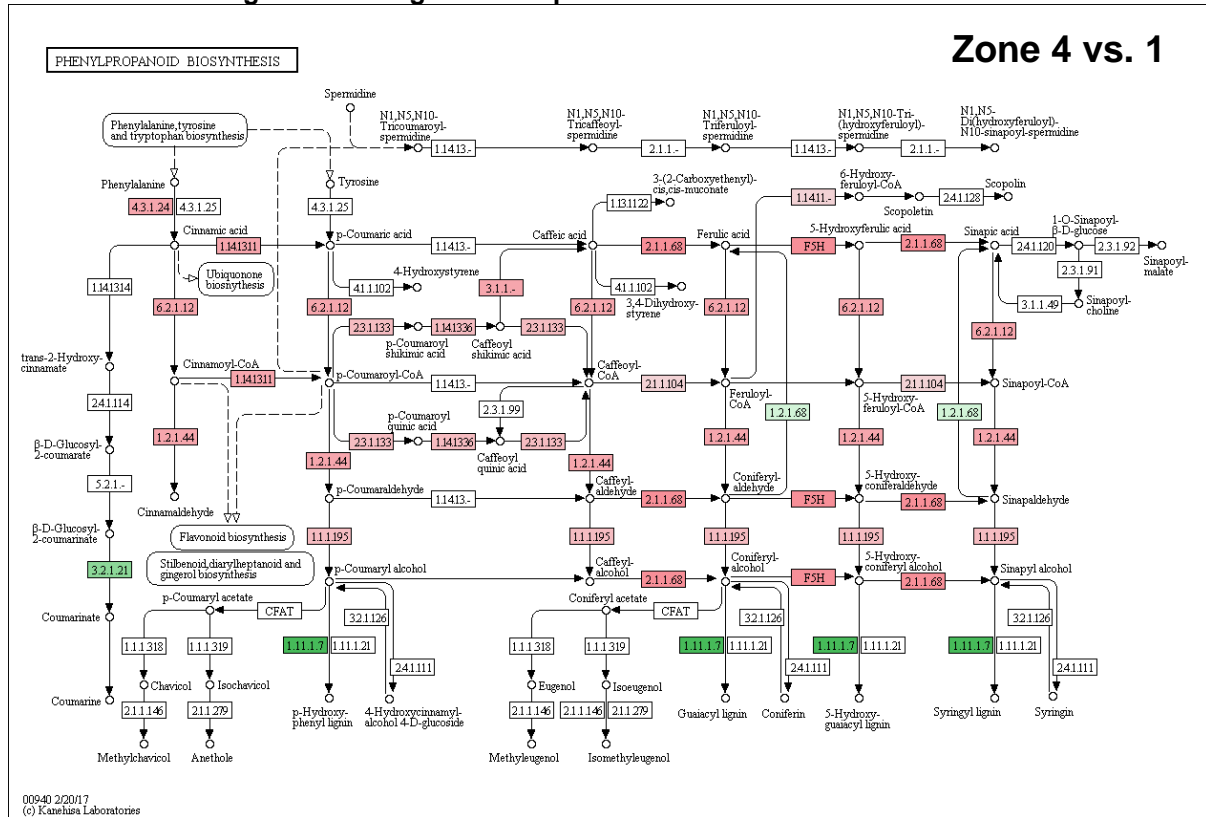
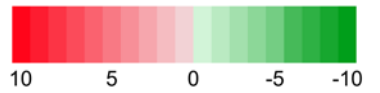
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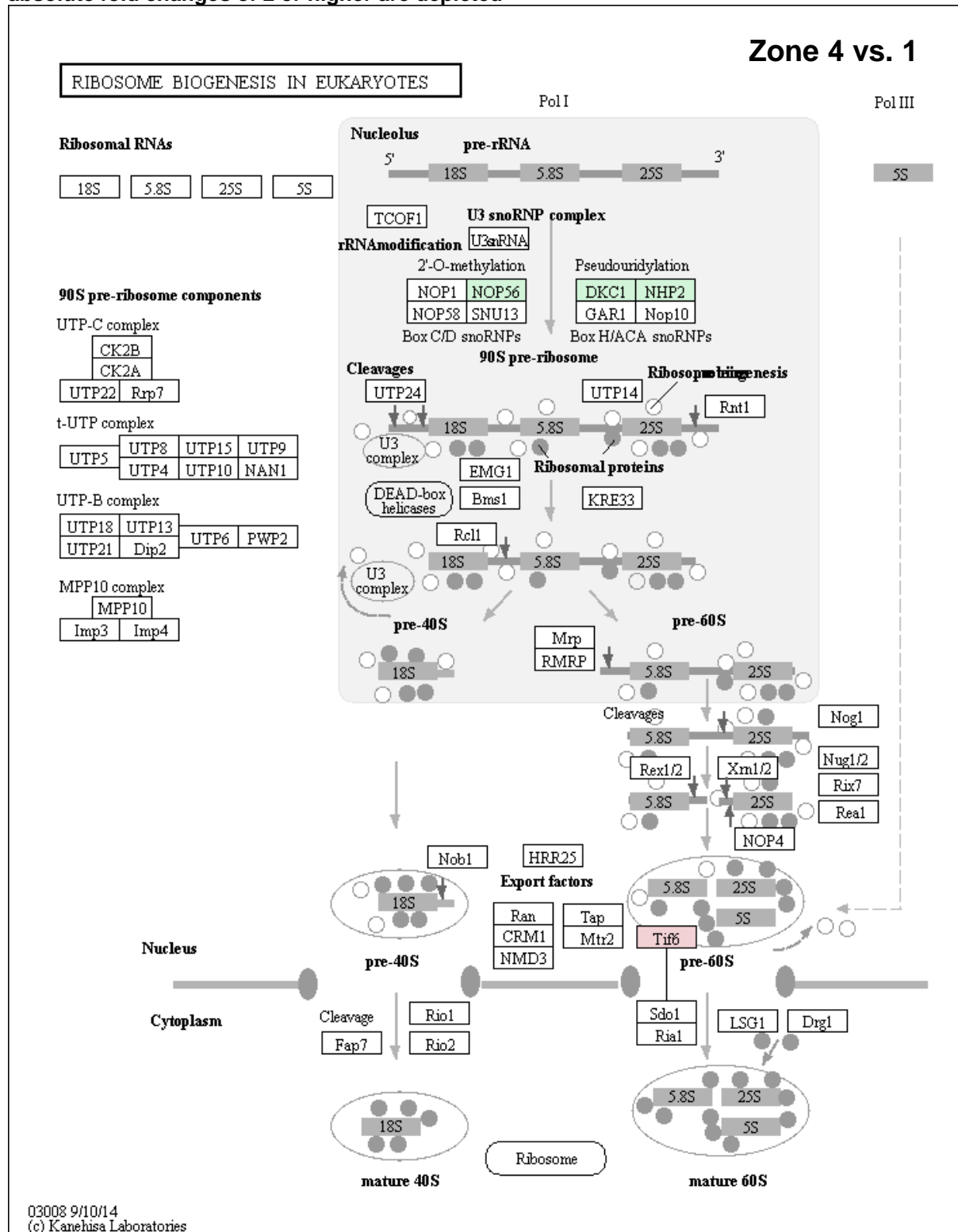
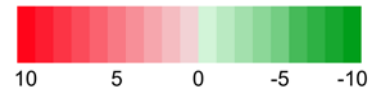




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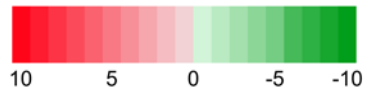
Log2 fold change



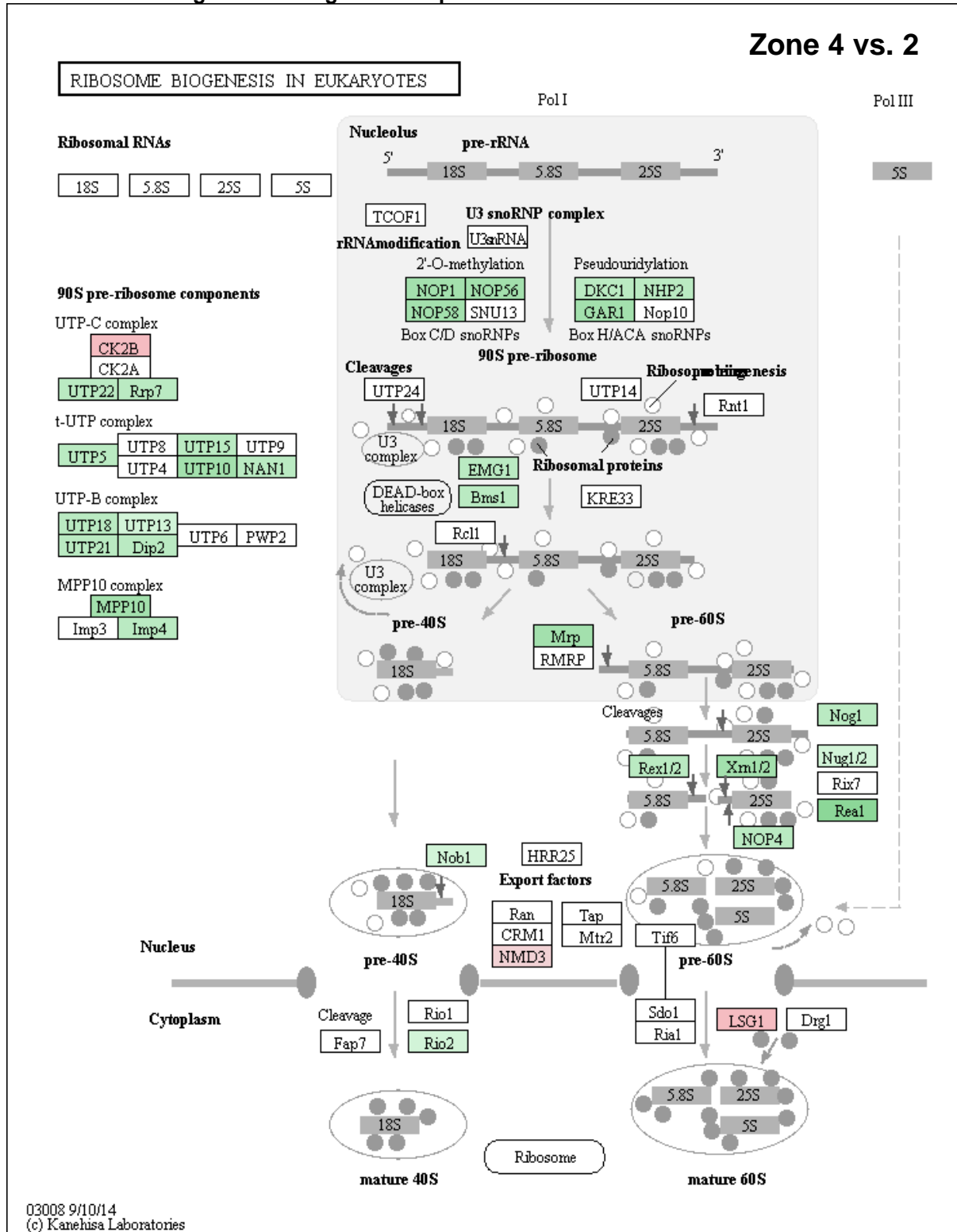
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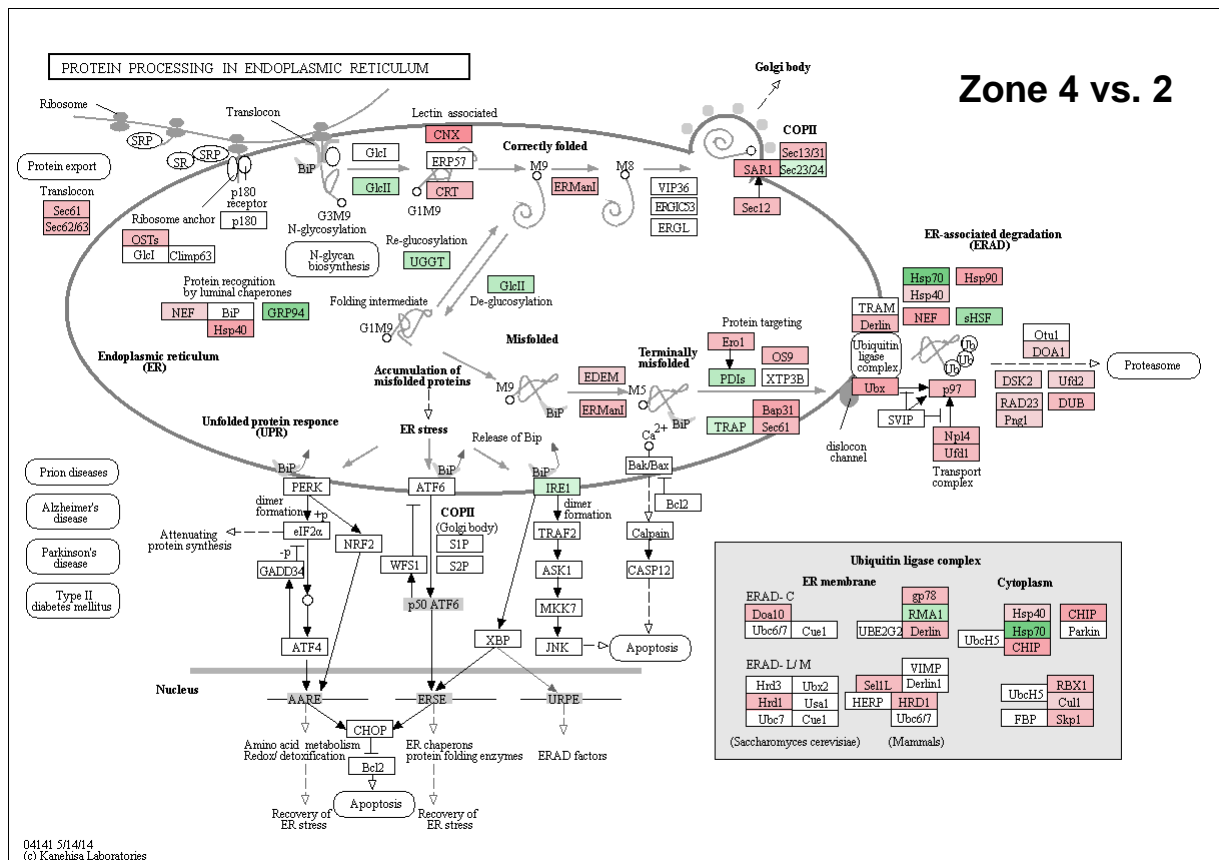
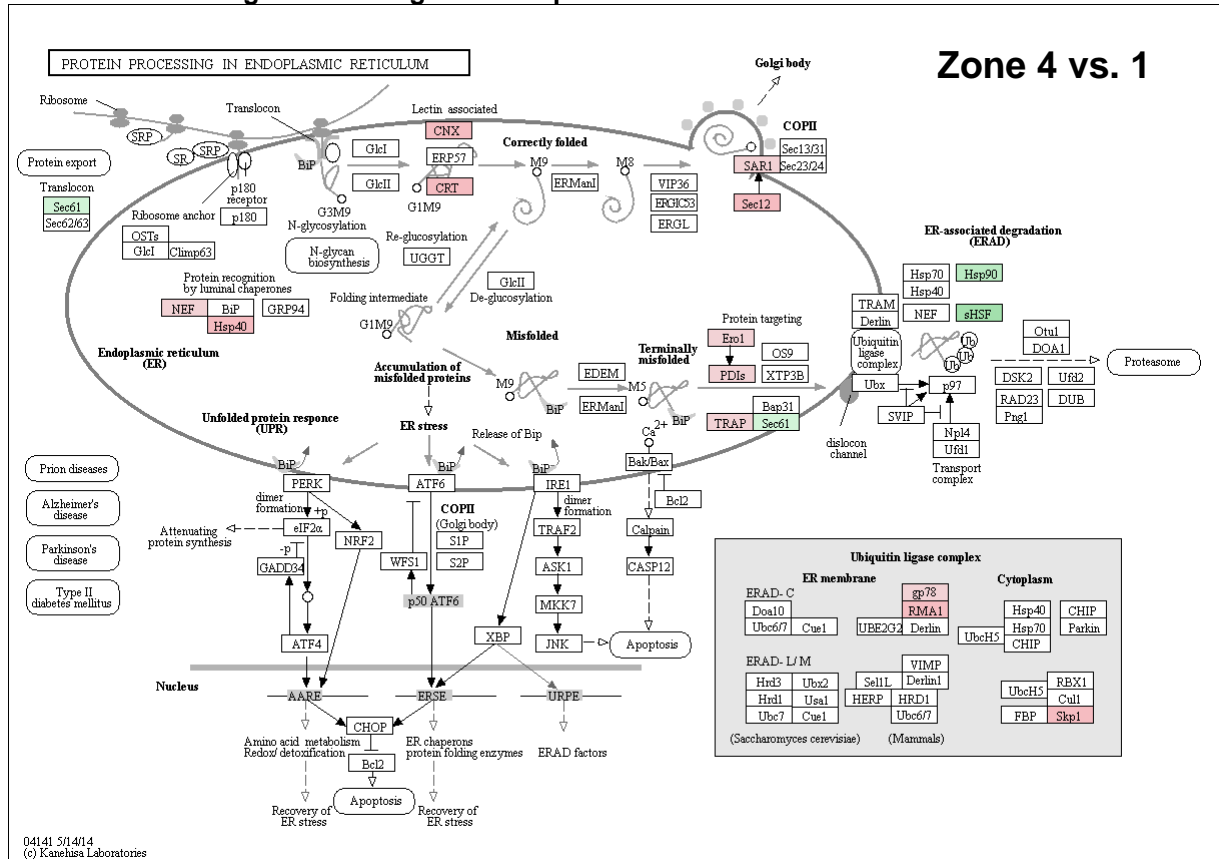
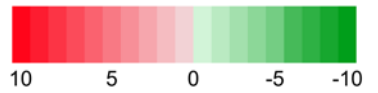
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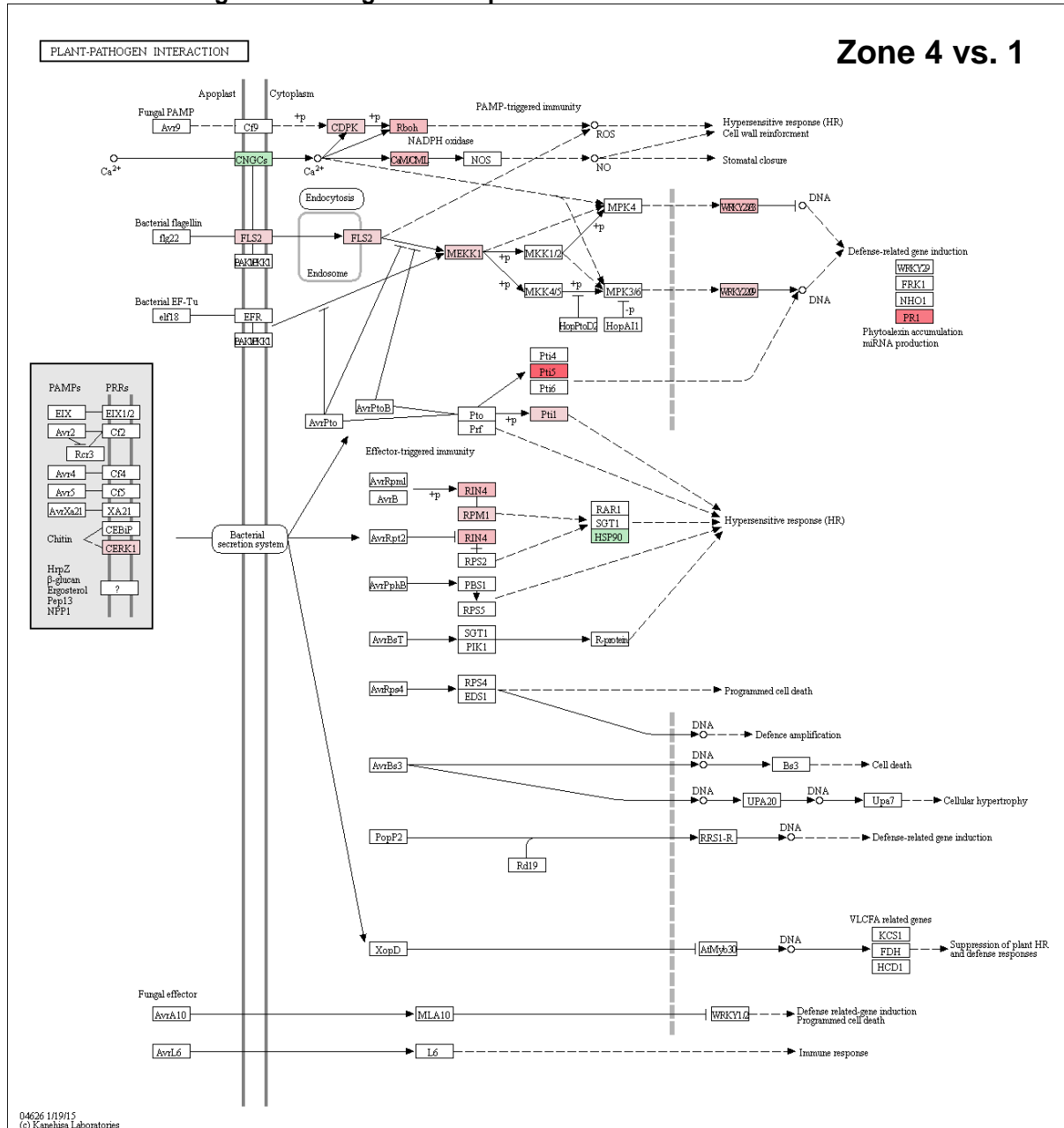
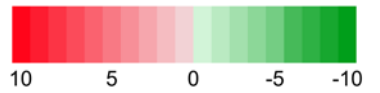
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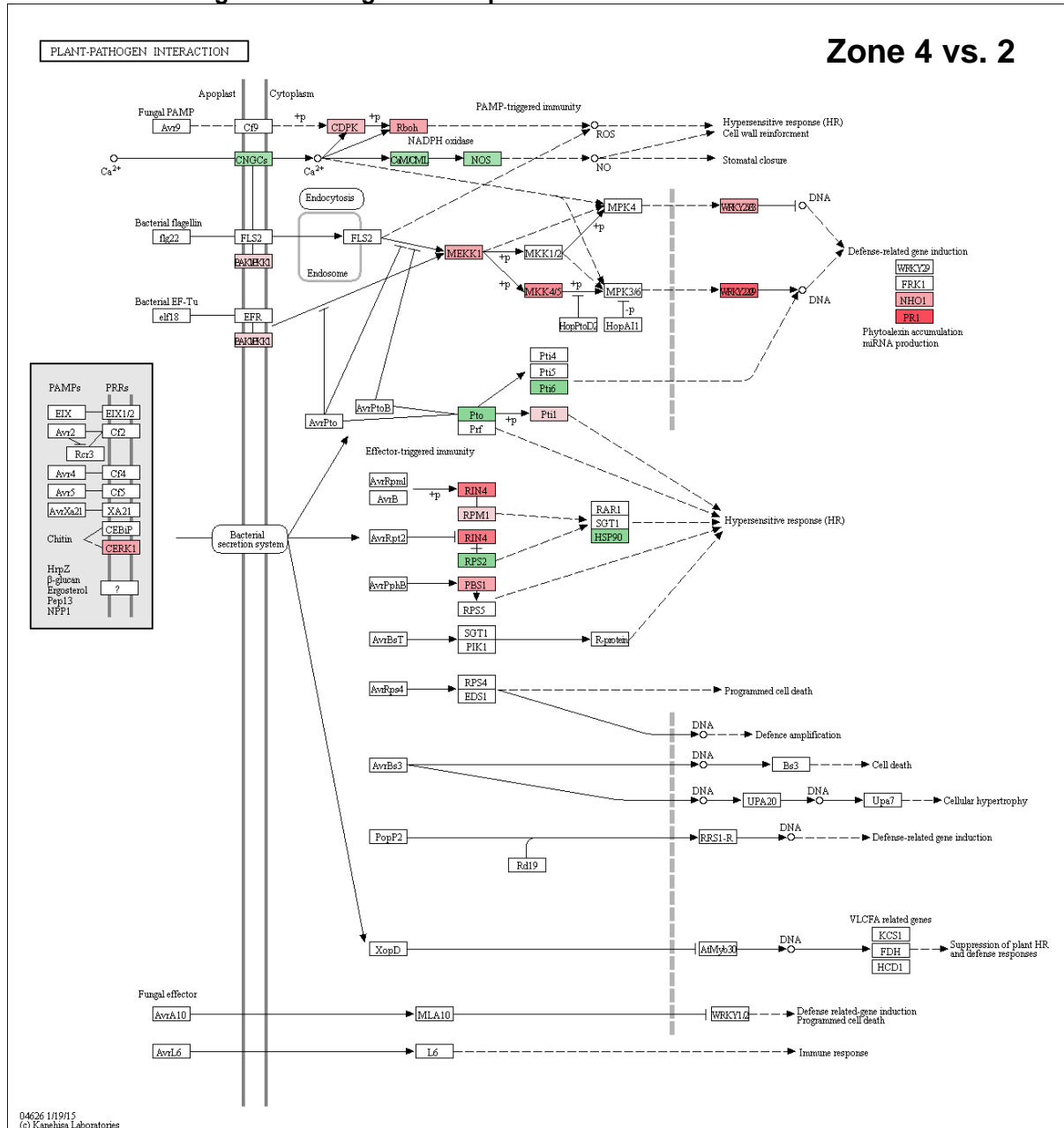
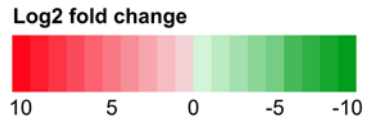
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Log2 fold change

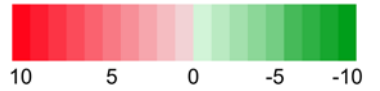


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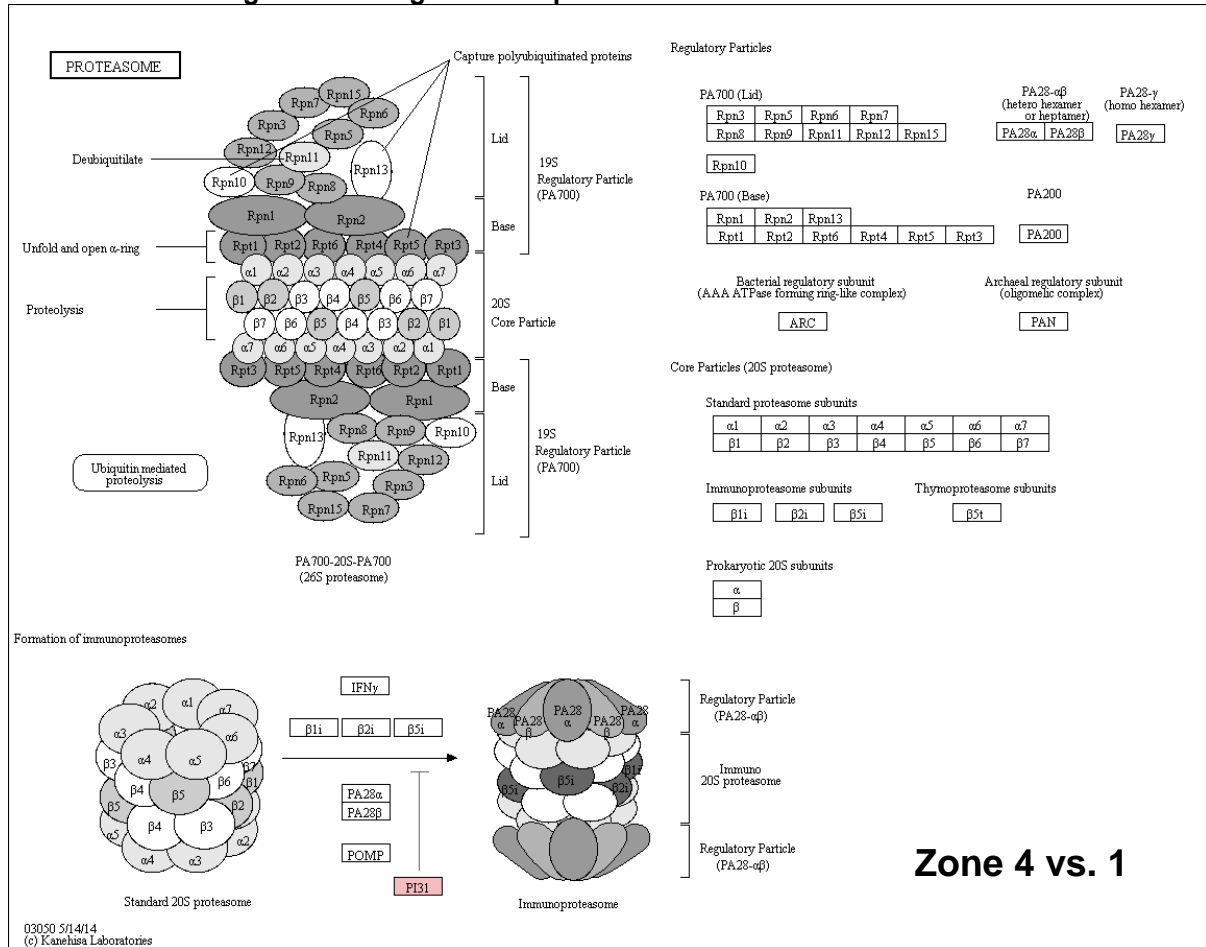


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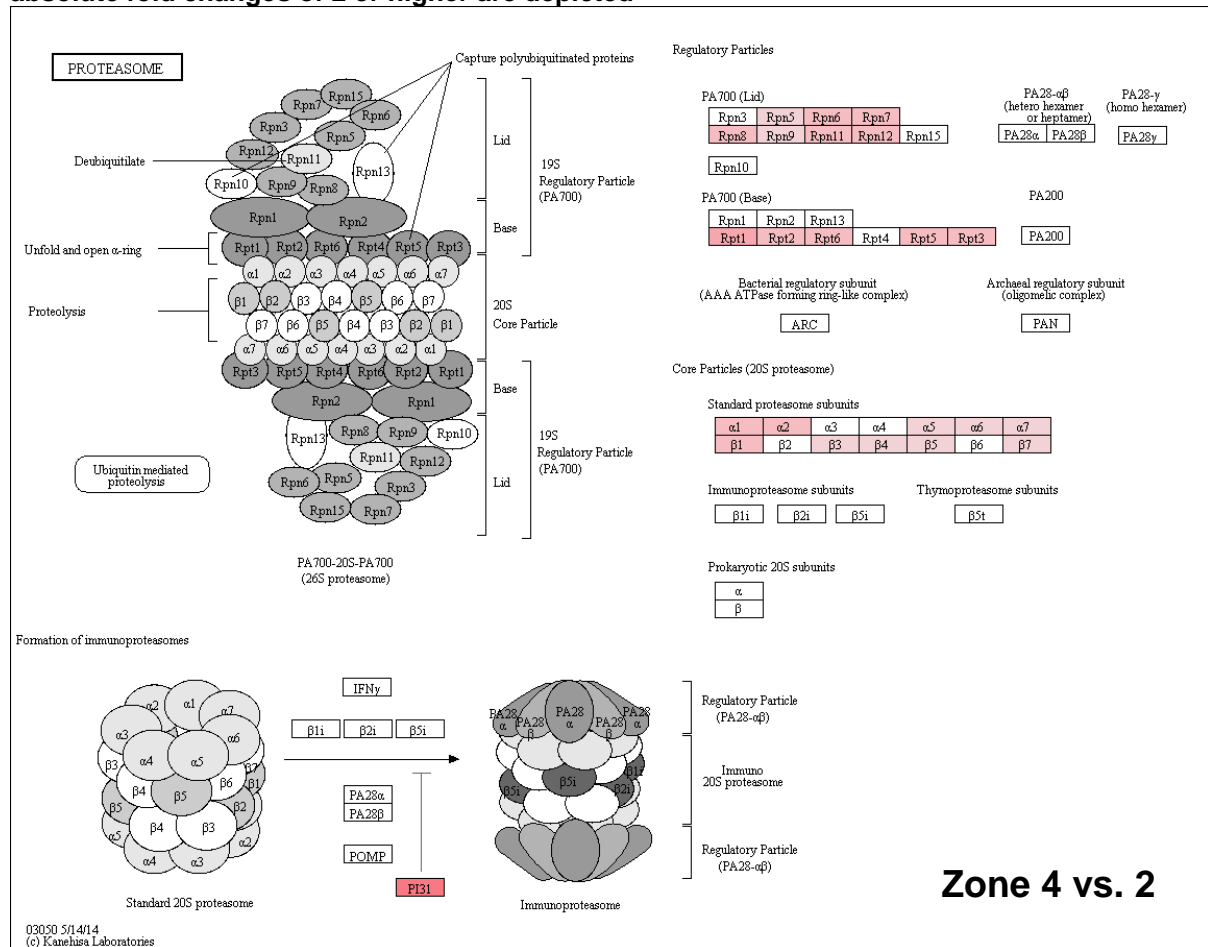
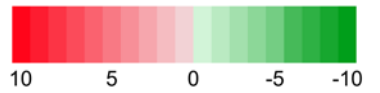
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Log2 fold change



Supplementary Figure S3: KEGG Transcriptome mappings of DEGs based on fold changes. Only DEGs with log2 fold changes of 1 or more and p-adj values of 0.05 or less are depicted. KEGG maps were obtained from [www.kegg.jp](http://www.kegg.jp)<sup>40-43</sup>