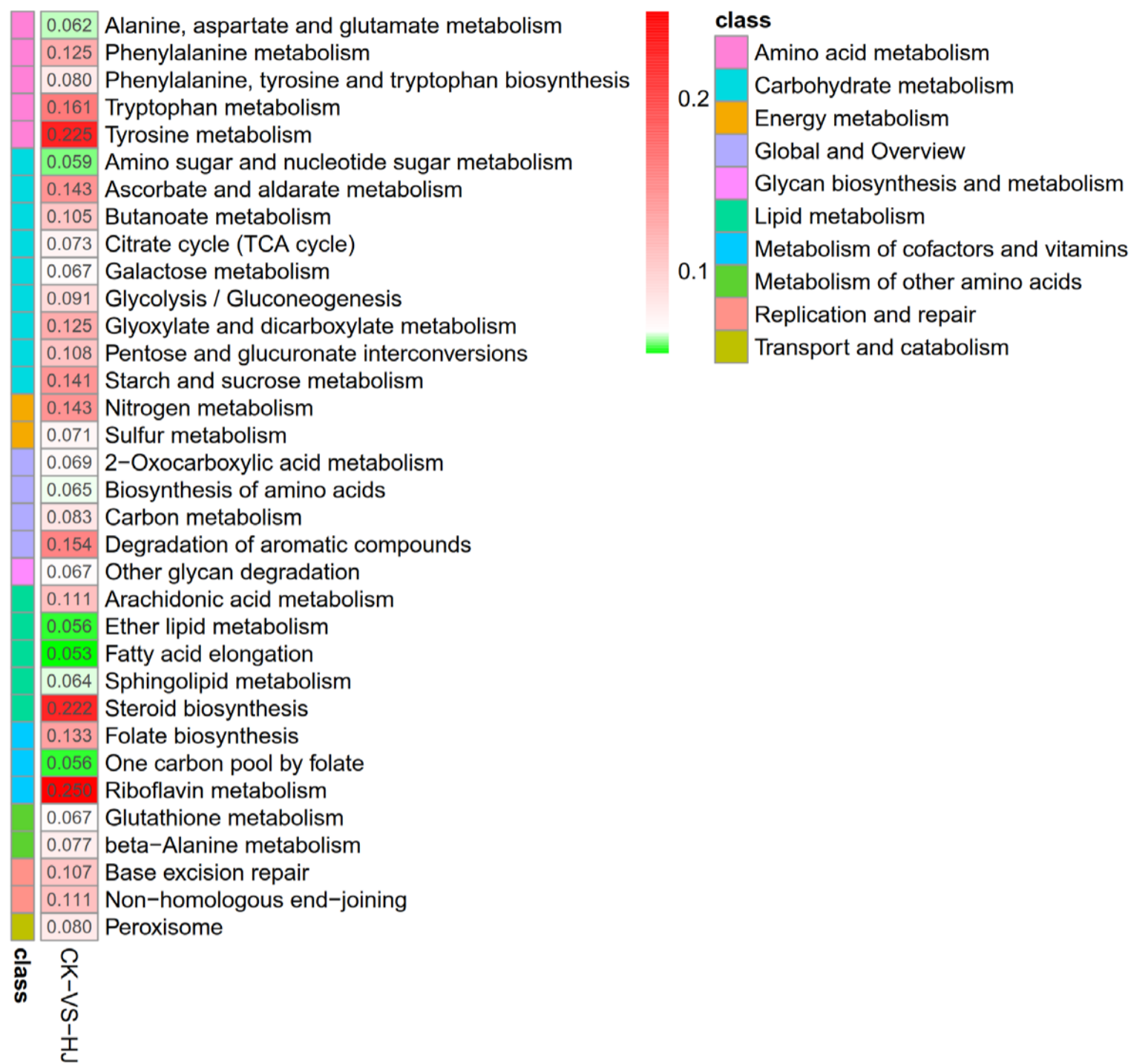


SUPPLEMENTARY MATERIAL - FIGURES

**Supplementary Figure 1.** KO enrichment factor heat map. (The Rich Factor filter criterion is at least one sample greater than or equal to 0.05. The left color bar represents different KEGG Level 2 classification notes. Each row represents a pathway, and each column represents a comparison group.)



**Supplementary Figure 2.** GO enrichment factor heat map. (Rich Factor Heat Map: The filter criterium is at least one sample greater than or equal to 0.05, and the left color bar represents three different GO Ontologies. Each row represents a GO Term, and each column represents a comparison group.)



**Supplementary Figure 3.** GO-directed acyclic graph (In this figure, the GO term that is closer to the root node is more generalized, and the downstream GO term is at a more detailed level). The program automatically assigns the shapes as follows: the squares represent the first 10 GO entries, and the circles represent other GO terms. The colors represent the following: the deeper the color, the more significant the GO term. The color range from shallow to deep is as follows: colourless- light yellow-dark yellow- red).

