



**Fig. 2.** Heatmap of the expression of the genes involved in the synthesis of the main metabolites in the *Artemisia annua* L. plant. The heatmap shows the relative expression levels of genes involved in the synthesis of artemisinin, qinghaosu, and their precursors. The genes are grouped into four categories: (a) genes involved in the synthesis of artemisinin; (b) genes involved in the synthesis of qinghaosu; (c) genes involved in the synthesis of their precursors; and (d) other genes. The expression levels are represented by a color scale from 0 (dark blue) to 10 (bright yellow).

the synthesis of artemisinin and qinghaosu. The heatmap shows that the expression levels of these genes are generally higher in the leaves than in the stem and root, indicating that the synthesis of these metabolites is primarily occurring in the leaves.

The heatmap also shows that the expression levels of the genes involved in the synthesis of artemisinin and qinghaosu are significantly higher in the leaves compared to the stem and root, suggesting that the synthesis of these metabolites is primarily occurring in the leaves.

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