

*NtFLS2*. The levels of other intermediates in the branch pathway did not change much except for a moderate increase of kaempferol-3-*O*-rutinoside. Furthermore, the transcript levels of pathway genes in transgenic lines were comparable with controls, indicating genetic engineering did not significantly alter the branch pathway. Additionally, the transgenic tobacco plants appeared normal except for a flower color change from light red to white suggesting that it could be a valuable material for industrial extraction of rutin.

