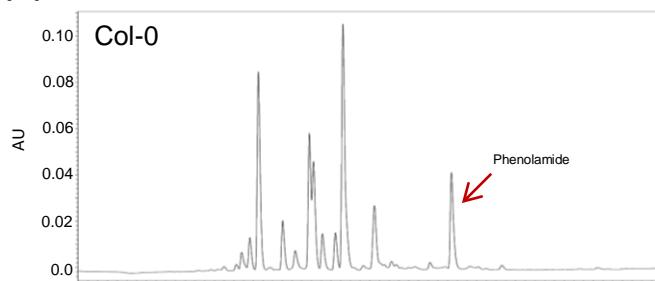


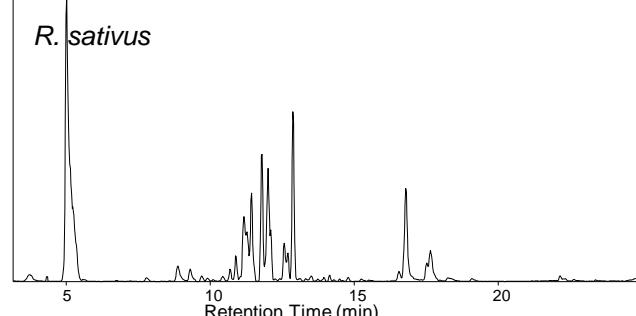
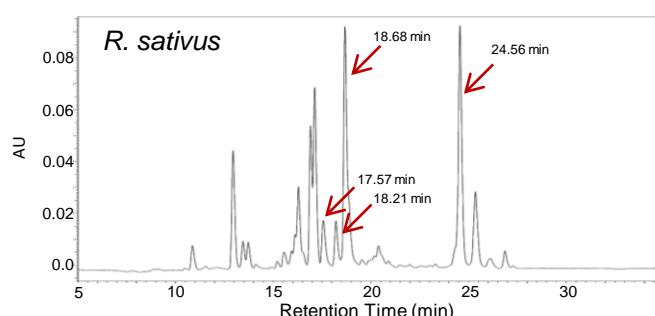
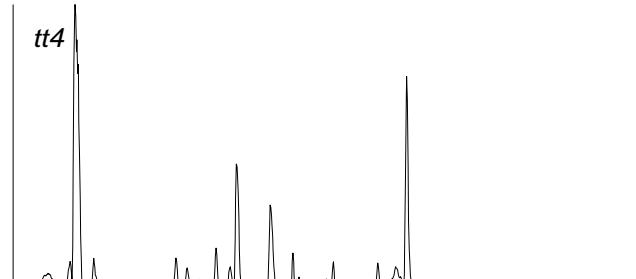
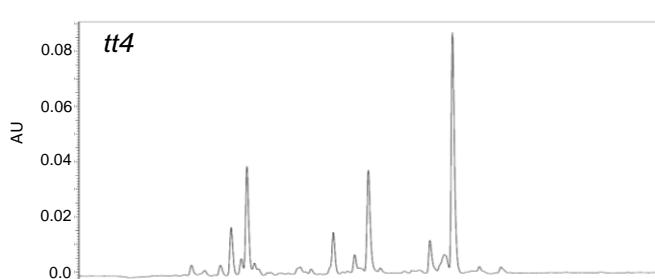
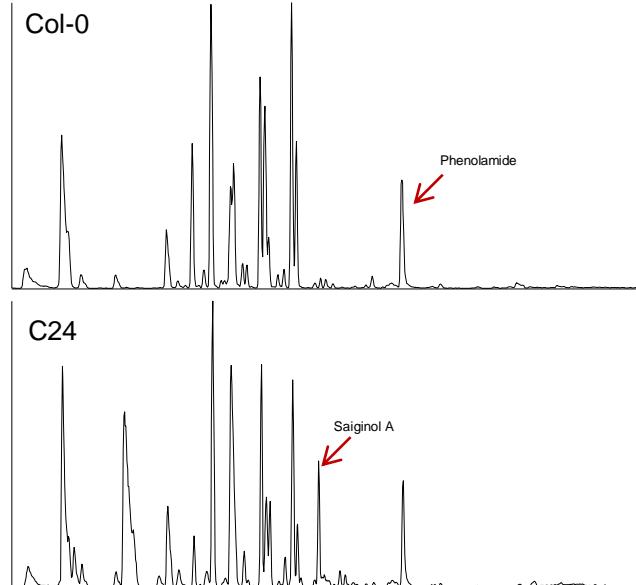
Figure S1. Overlay heat map of the 228 characteristic peak profiles of floral specialized metabolites in Brassicaceae genotypes.

(A)

HPLC-PDA 320 nm



HPLC-MS (TIC)

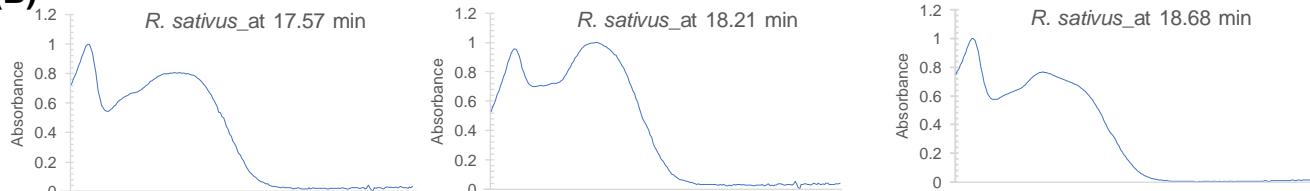


(B)

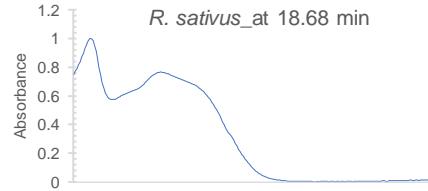
R. sativus_at 17.57 min



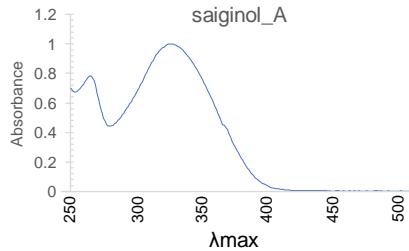
R. sativus_at 18.21 min



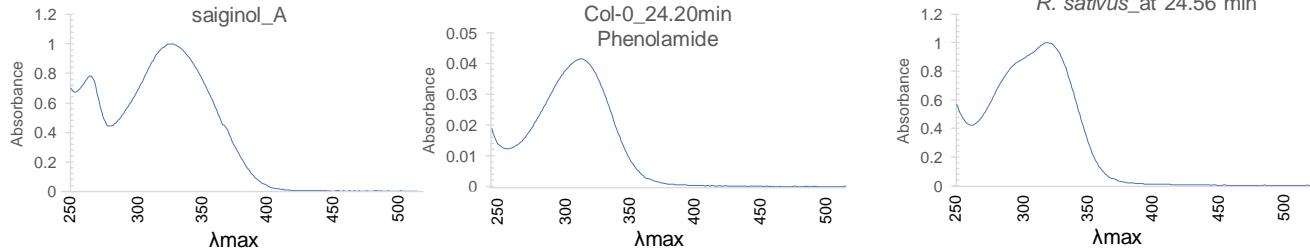
R. sativus_at 18.68 min



saiginol_A



Col-0_24.20min Phenolamide



R. sativus_at 24.56 min

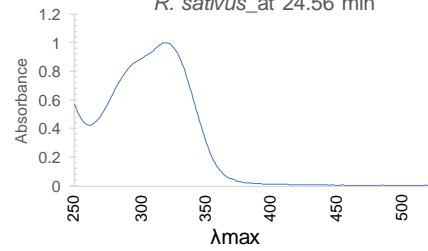


Figure S2. HPLC-PDA and LC-MS Chromatogram of flowers from *Arabidopsis* accession Col-0, C24, tt4 mutant as well as *R. sativus* and typical absorption spectrum of phenylacylated compounds.

(A). HPLC chromatogram detected at 320 nm. Chromatographic peaks at 17.57 min, 18.21 min, 18.68 min and 24.56 min of *R. sativus* were indicated by red arrows. (B). Absorption spectrum of peak at 17.57, 18.21, 18.68, 24.56 min from *R. sativus*, saiginol from C24 accession of *Arabidopsis* (Tohge et al., 2016) and phenolamide from Col-0 were shown. Abbr: AU indicates absorbance unit.