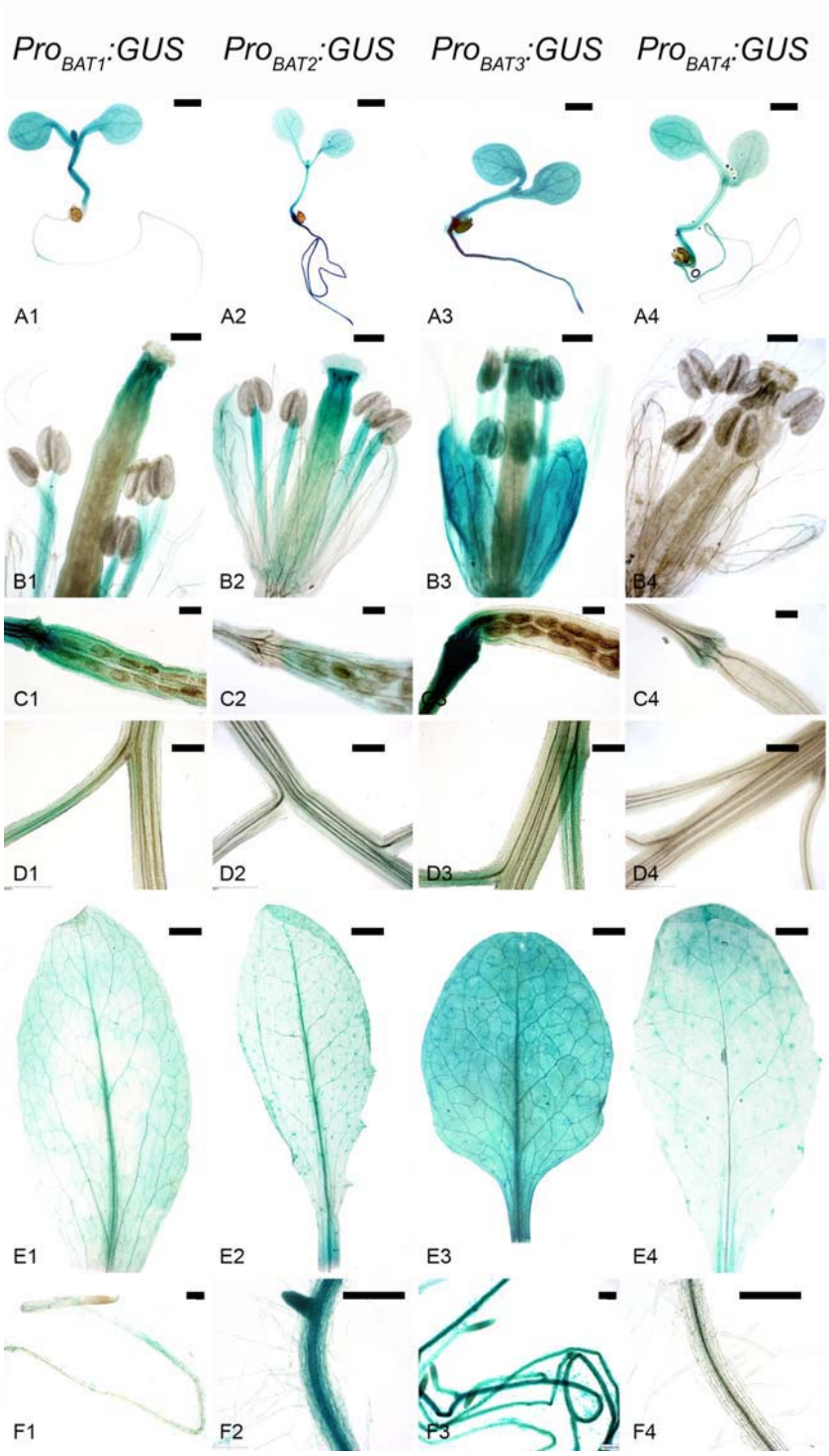
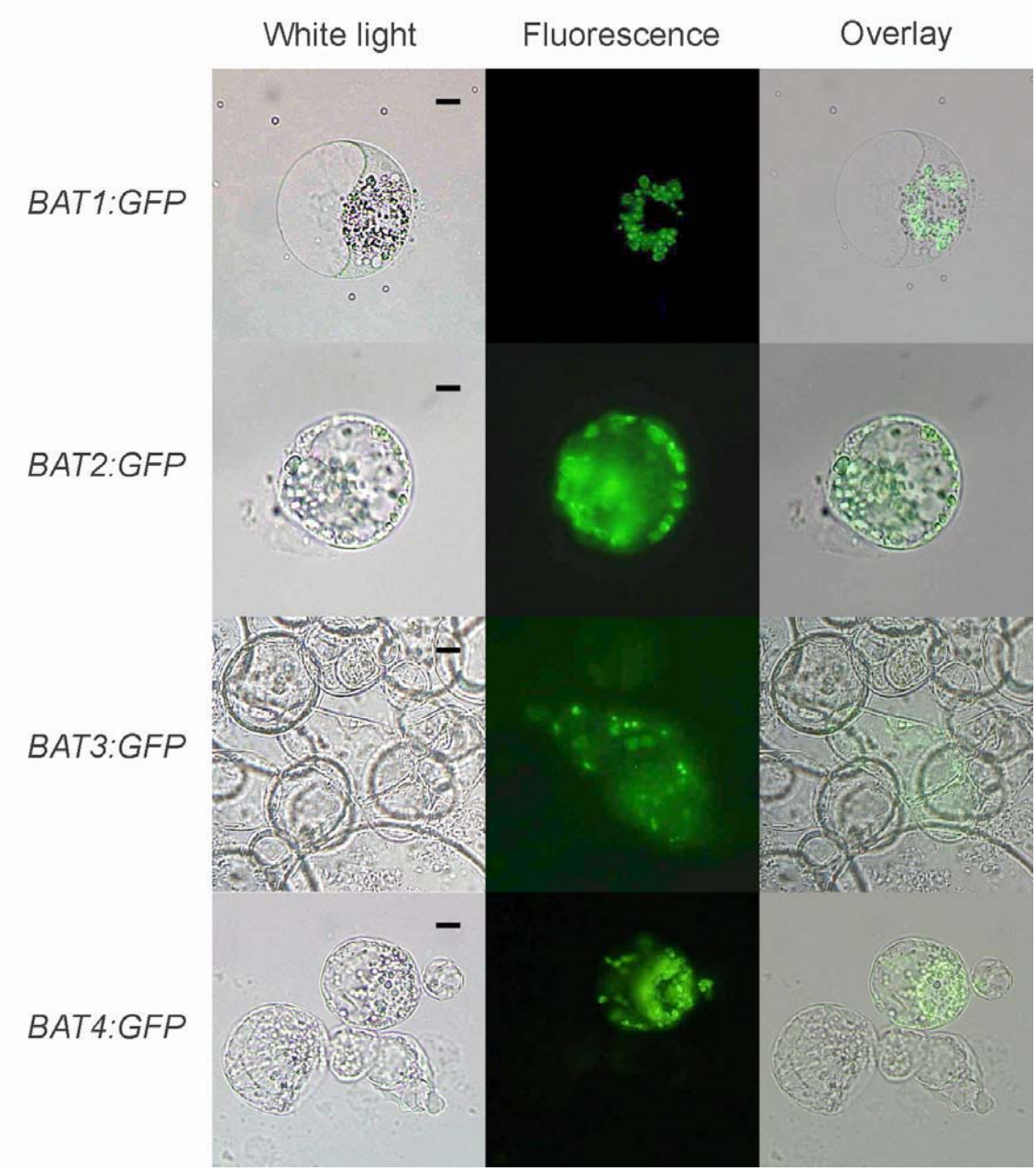
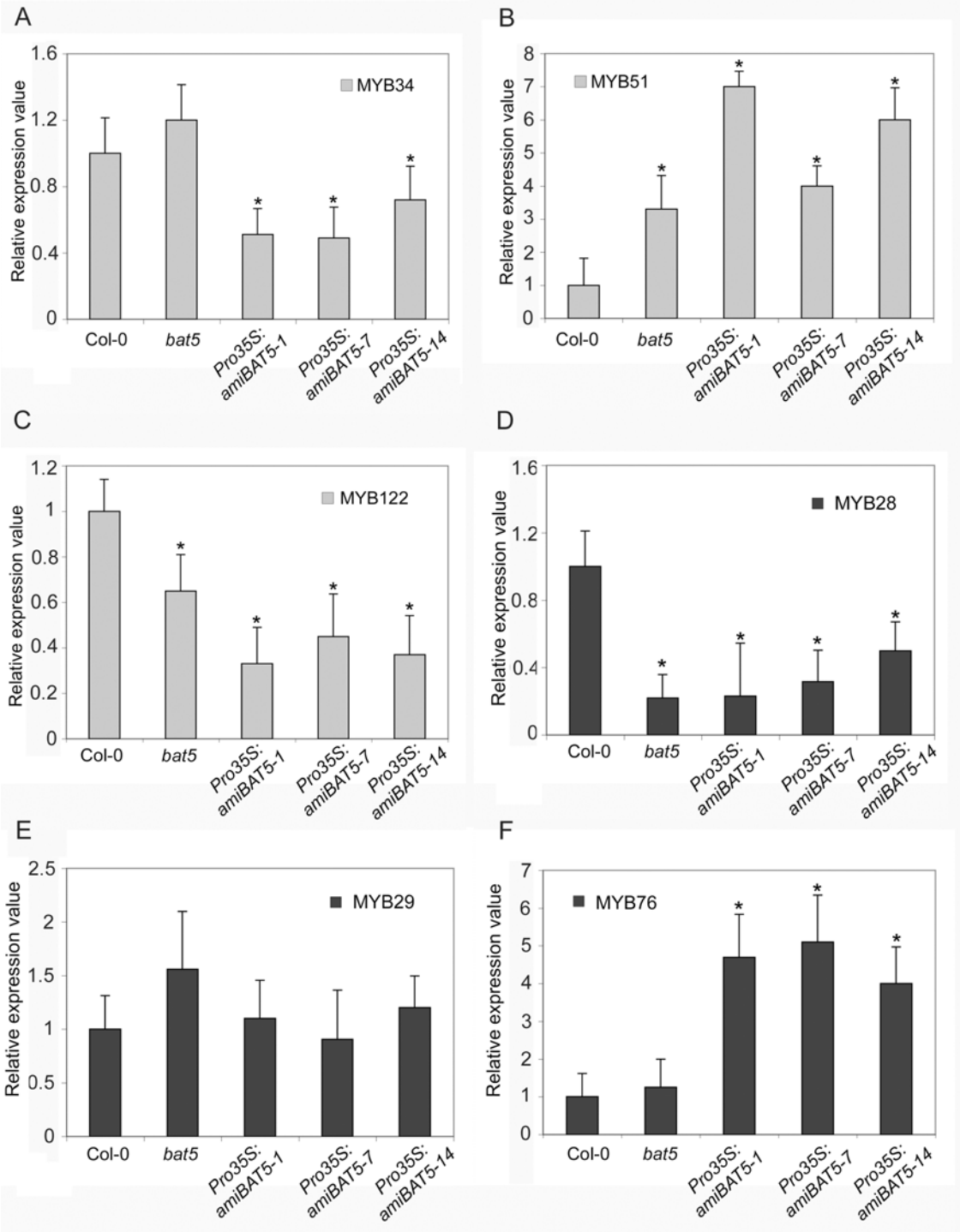


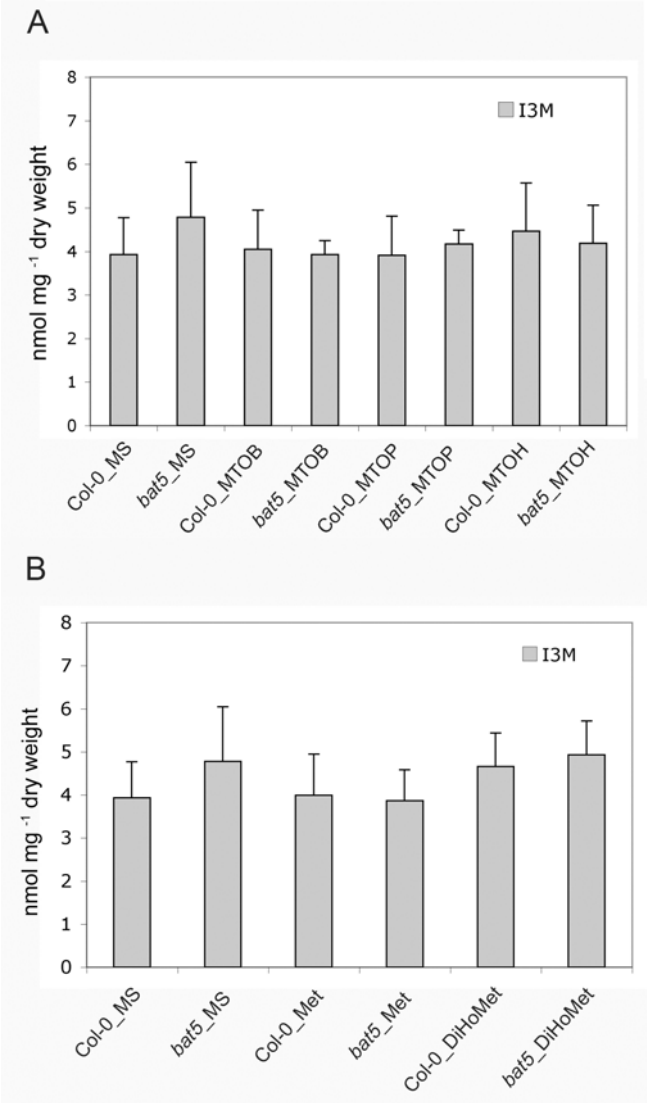
Supplemental Figure 1. Histochemical GUS staining in various tissues of *Pro*$_{BAT1-4}$*:GUS* plants. Seedlings **(A)**, flowers **(B)**, siliques **(C)**, inflorescences **(D)**, foliar parts **(E)**, and roots **(F)** are shown. . Bar = 500 μm in **(A1-A4)** and **(D1-D4),** 150 μm in **(B1-B4), (C1-C4), (F1-F4)** and 1000 μm in **(E1-E4).**



Supplemental Figure 2. Plastidic localization of the *BAT1, BAT2, BAT3 and BAT4* full-length-GFP construct in BY tobacco protoplasts. Bar = 10 μm.



Supplemental Figure 3. Transcript levels of known glucosinolate biosynthesis regulators in leaves of *bat5* and *Pro35S:amiBAT5* plants in comparison with the wild type (Col-0), **(A-F)**, relative gene expression values are given compared to wild type (=1) for MYB34, MYB51, MYB122, MYB28, MYB29 and MYB76. Means ± SD, (n=3). *Significantly different in comparison to the wild type (Student's t-test, $P<0.05$).



Supplemental Figure 4. Content of the indolic glucosinolate indol-3-ylmethyl-GS in *bat5* mutant fed with 2-keto acids (A) or amino acids (B).

Plants were germinated on ½ MS plates with agar and 2-week-old wild-type and *bat5* seedlings were transferred to media supplemented with 0.2 mM MTOB (4-methylthio-2-oxobutanoate), MTOP (6-methylthio-2-oxopentanoate), MTOH 6-methylthio-2-oxohexanoate, Met (methionine) or DiHoMeth (dihomomethionoine), respectively, for 14 additional days, followed by analyses of aliphatic glucosinolates. Means ± SD, n=5.