

Figure 2-Figure Supplement 8

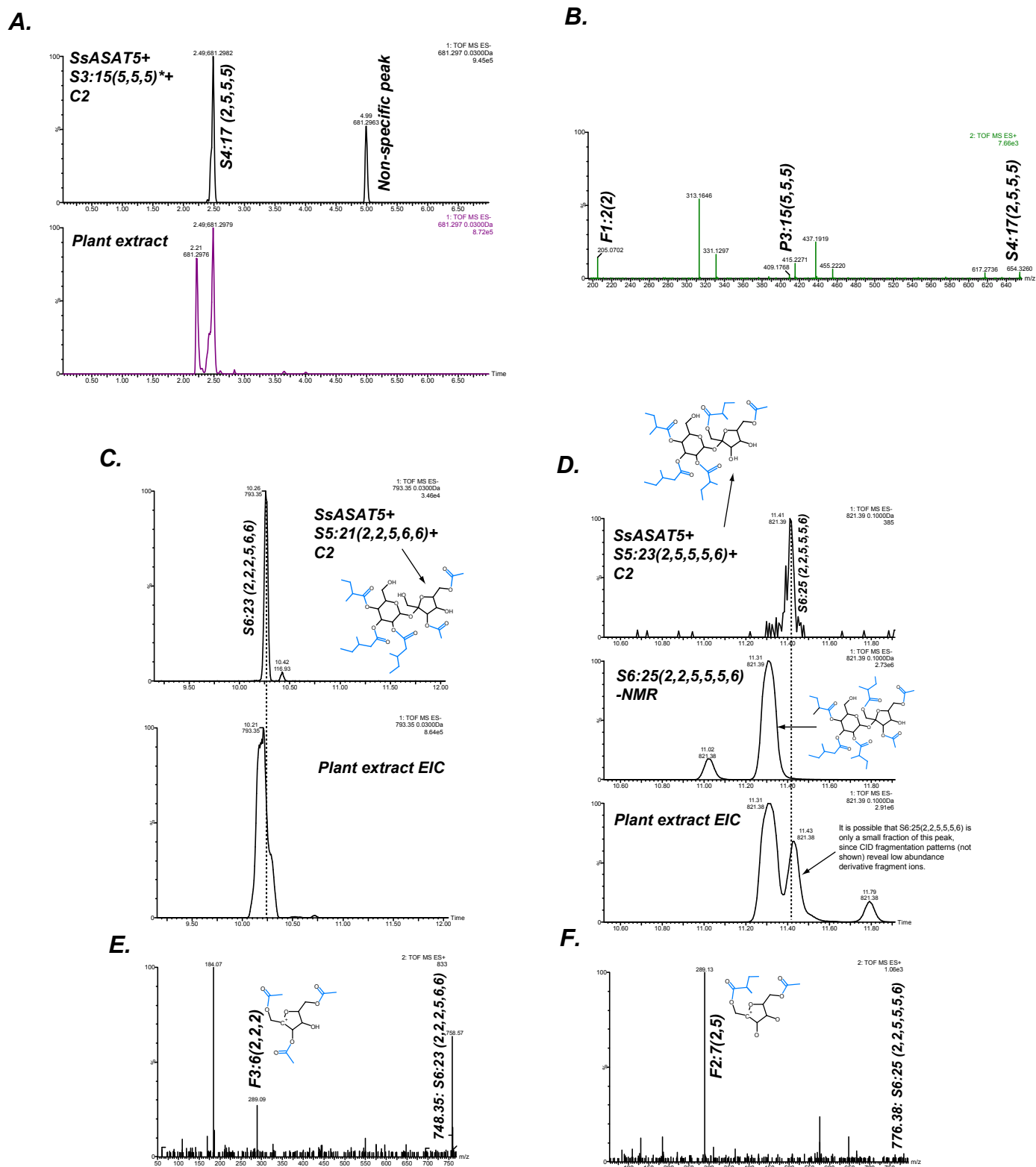


Figure 2-Figure Supplement 8: SsASAT5 putative secondary activities. (A) SsASAT5 can transfer C2 to S3:15 (5,5,5) isolated from *Solanum pennellii*-derived Backcross Inbred Line BIL6180 (unpublished data; Ofner et al, 2016), which has the three acyl chains on the R2, R3 and R4 pyranose (abbr: P) ring, same as Salpiglossis. (B) The C2 addition likely occurs on the furanose (abbr: F) ring, as seen by the presence of the m/z 205.07 in the positive-ion mode elevated collision energy mass spectrum. (C,D) SsASAT5 can transfer C2 to penta-acylated sucroses, and the product co-migrates with an acylsugar of the same molecular mass produced in the plant. Co-migrating peaks are aligned by the dashed line. Central panel in (D) shows that the S6 sugar produced by SsASAT5 is not the same as the most abundant acylsugar produced by the plant purified for NMR, which has two C2s on the furanose ring. Shown are extracted ion LC/MS chromatograms for the expected masses. (E,F) The most abundant fragment ions (m/z : 289.09, 289.13) are consistent with C2 addition occurring on the furanose and pyranose rings, respectively.