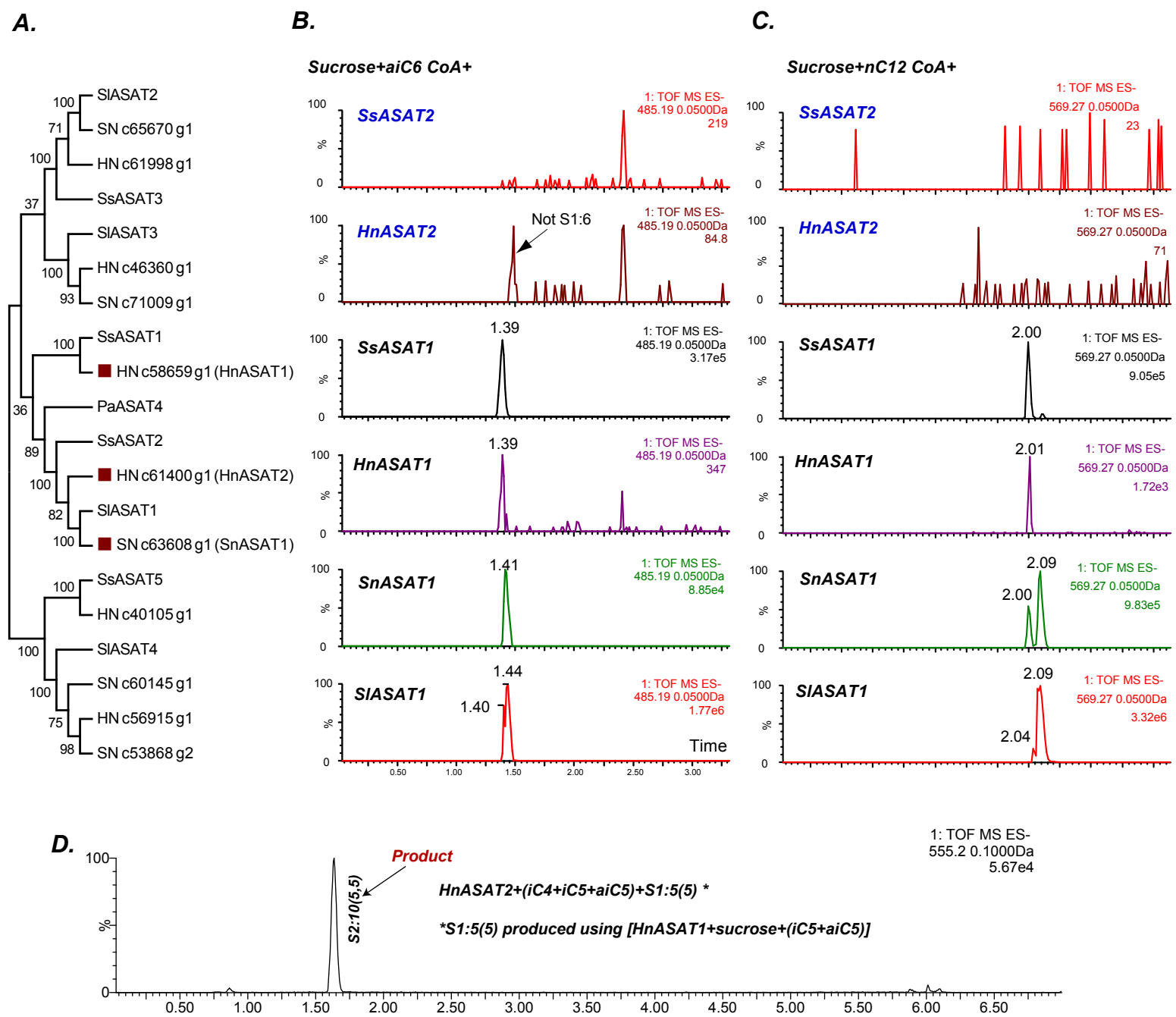


Figure 7-Figure Supplement 1



**Figure 7-Figure Supplement 1: Some aASAT2 orthologs cannot catalyze sucrose to mono-acylsucrose conversion.** (A) Neighbor-joining tree made using Salpiglossis and tomato ASATs and their best hits in *S. nigrum* (Sn) and *H. niger* (Hn) transcriptome database. Tree was made using default parameters in MEGA6 for alignment and phylogeny, and identifies putative aASAT2 orthologs in *S. nigrum* and *H. niger*. (B-D) Shown are LC/MS extracted ion chromatograms for S1:6(6) [B], S1:12(12) [C] and S2:10(5,5) [D]. All reactions were run on a C18 LC column. Results show that Hn, Ss, Sn and SIASAT1s can catalyze sucrose to mono-acylsucrose conversion using aiC6 and nC12 CoA. However, aASAT2 orthologs in Hn and Ss are not able to catalyze this reaction. (D) HnASAT2 is able to catalyze di-acylsucrose formation using the HnASAT1 product.