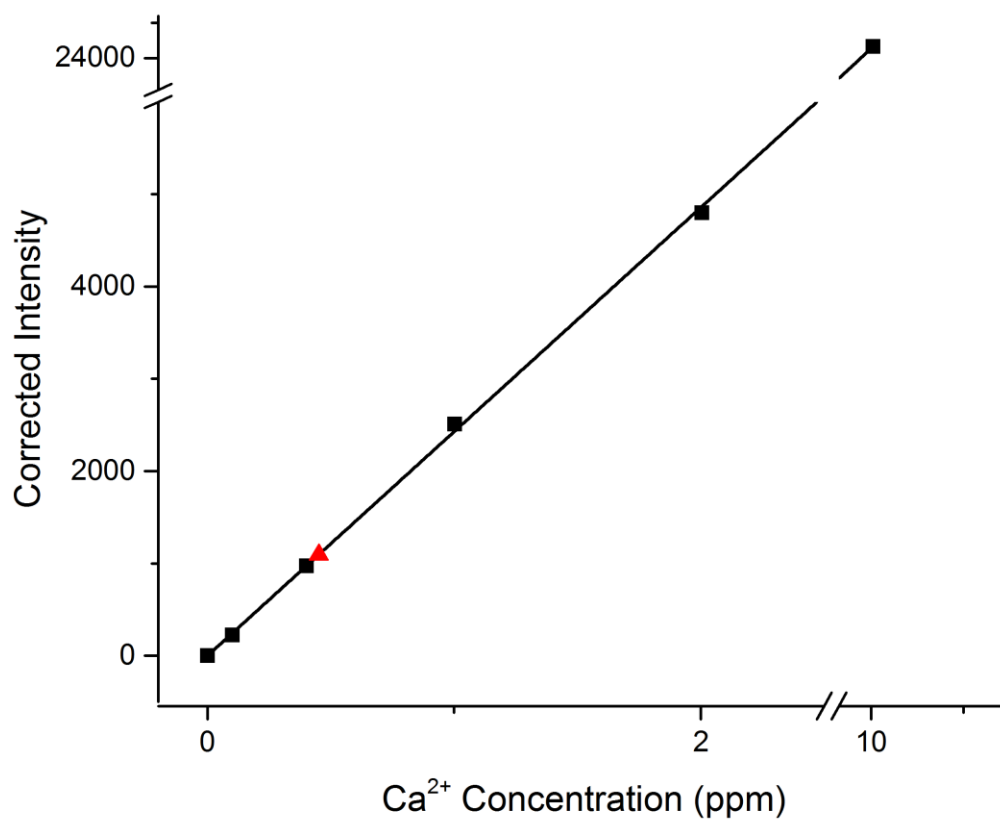
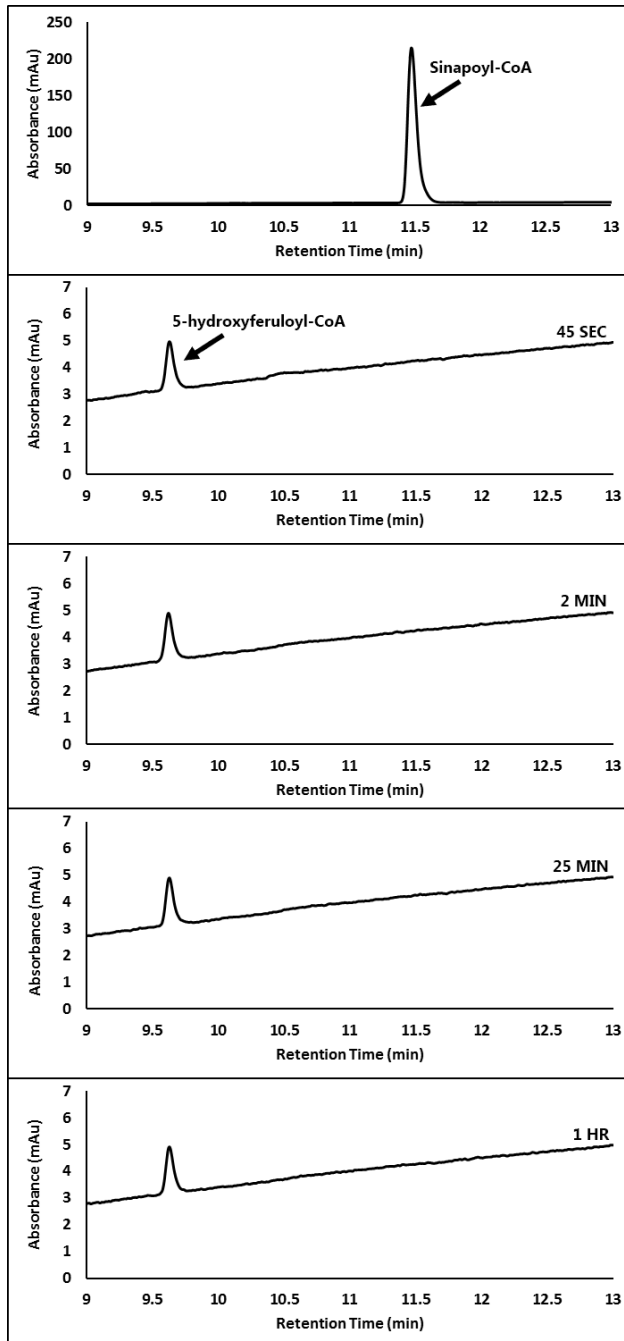


Supplementary Data 1. ICP data for SbCCoAOMT calcium content. Average Ca^{2+} content as fractional occupancy of SbCCoAOMT was 89.6%. The emission intensity and concentration values belonging on calcium standards are indicated as black squares, whereas that belonging to SbCCoAOMT is indicated as a red triangle.



Supplementary Data 2. Chromatograms of 5-hydroxyferuloyl-CoA assays and 100 μM sinapoyl-CoA standard. A substrate concentration of 10 μM 5-hydroxyferuloyl-CoA was used in each assay. The time indicated on the right-hand side of the chromatogram indicates the reaction time until termination. The small baseline rise present in all injections is due to the acetonitrile gradient.



Supplementary Data 3. SDS-PAGE of wild-type SbCCoAOMT and mutants. **A.** Wild-type SbCCoAOMT following purification. **B.** Purified K180A and D252A SbCCoAOMT mutants are shown in lanes 1 and 2, respectively.

