



**Supplemental Figure S4. GC-MS analysis of the product of SICPT2.** Purified recombinant SICPT2 was incubated with each substrate and IPP for 16 h at 30 °C. The reaction was stopped by heating at 80 °C for 10 min. followed by alkaline phosphatase treatment for 3 h at 37 °C. The reaction product was extracted with hexane and analyzed by GC-MS. The data presented is MIC; 81, 93, 121, 136. Left column: GC chromatogram obtained from the enzyme assays with the indicated substrates. Right column: the mass spectra of the reaction product obtained from the assays. It was previously determined that for a given prenyl alcohol, the *cis* isomer elutes earlier in this column system than the *trans* isomer (Schillmiller et al., 2009; Sallaud et al., 2009). SICPT2 can utilize GPP (which has one *trans* linkage) as an acceptor substrate in addition to DMAPP, NPP, and Z,Z-FPP. The latter three reactions give the same product, which elute earlier than the product of the reaction with GPP. It follows that the early eluting product has no *trans* linkages.