



**Supplemental Figure 1. Confirmation of *toc64* and protein kinase disruption lines and test of SFR2 activity during normal growth.** (A) DNA extracted from wild-type *Arabidopsis* (WT) or three individual *toc64* or *protein kinase* disruption lines (1, 2, 3) was amplified to test for the presence of specific alleles. The gene-specificity of the allele amplified is given on the left. The presence of a band in any given lane indicates the presence of the wild-type allele or the T-DNA insertion, as indicated above. The lack of a wild-type allele in *toc64* for *TOC64-III*, *TOC64-V* or *TOC64-I*, and the presence of a T-DNA insertion in each confirms that *toc64* lacks uninterrupted alleles of any *TOC64* paralog. Similarly, the lack of a wild-type allele and the presence of a T-DNA insertion in the protein kinase (*prot. kin.*), indicates the lack of an uninterrupted allele of the protein kinase family protein. (B) A thin-layer chromatogram visualized with a sugar-specific stain separates lipids from three individual wildtype, *toc64*, *prot. kin.*, or *sfr2* plants grown under normal conditions. The location at which oligogalactolipids would appear is labeled at right (TGDG, TeGDG).