



**FIG S1** Reflection plot highlighting the *S. aureus* PG molecular species containing 15:0 FA in the infected thigh. The thigh lipid extract was enriched for PG and phosphatidylinositol (PI) using solid phase extraction, and the PG molecular species containing 15:0 were detected using mass spectrometry by scanning for parent ions that lose  $m/z = 241$  corresponding to the loss of a 15:0 FA. Mouse PI was also detected because it copurified with PG and its fragmentation also gives a loss of  $m/z = 241$  due to the removal of the inositol headgroup. The Upper Panel shows the  $m/z = 241$  scan from a thigh infected with strain AH1263 (wild type). The Lower Reflection Panel shows the  $m/z = 241$  scan from an uninfected thigh. The new PG molecular species peaks that appear in the *S. aureus* infected thigh are highlighted in red and the mammalian PI molecular species are shown in blue.