

## Replacement of Lipopolysaccharide with Free Lipid A Molecules in *Escherichia coli* Mutants Lacking All Core Sugars

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### Supporting Information

**Supporting Figure 1. ESI/MS demonstrating the accumulation of lipid IV<sub>A</sub> in *kdtA* mutant CMR100.** Exponentially-growing cells in 50 mL LB broth supplemented with 1 mM IPTG and 100 µg/mL ampicillin at 30 °C were harvested in late log phase. The total lipids were extracted with a two-phase neutral Blish-Dyer system (46), re-dissolved in chloroform/methanol/piperidine (2:1:0.03, v/v/v), and immediately analyzed in the negative ion mode by direct infusion ESI/MS, using an ABI QSTAR XL quadrupole time-of-flight mass spectrometer. **Panel A.** Major glycerophospholipid ions of the control strain DY330(pWMSbA) between *m/z* 698 and 722 consist mainly of molecular species of PE and PG, as indicated. **Panel B.** The *kdtA* deletion mutant CMR100 contains similar glycerophospholipids, but accumulates additional peaks (red), which are interpreted as the [M-2H]<sup>2-</sup> and [M-3H+Na]<sup>2-</sup> ions of lipid IV<sub>A</sub>. The other regions of these spectra did not show significant differences.



