****

**Table S1. Primer sequences for PCR primers.** The same forward and reverse primers were used to amplify the *wbbL* gene in MG1655 and DFB1655 L9. MG1655 contains an insert in *wbbL* producing an expected larger fragment.



**Table S2. T4 bacteriophage stock titer**. Serial dilutions of T4 bacteriophage were mixed with MG1655 and overlay agar, plated, and incubated overnight at 37°C. The plaque counts falling between 30 and 300 were included for phage titer calculation. The phage titer was calculated using the number of plaques \* 10 \* reciprocal of the dilution factor, and the final concentration of T4 bacteriophage is determined using the average concentration based on all plates included.

 

**Table S3. T4 bacteriophage concentrations, MG1655 concentrations, and MOI during adsorption assay**. Plaque counts, concentrations, and percentage of free T4 bacteriophage in chloroform-treated supernatant in control, LPS with no O16-antigen group (MG1655 LPS), and O16-antigen containing LPS group (MG1655 L9 LPS) during (A) replicate 1 and (B) replicate 2. Concentration of MG1655 used for adsorption assay, and MOI calculated following the equation: # of initial T4 bacteriophage/# of MG1655 cells for (C) replicate 1 and (D) replicate 2. N/A stands for not available due to technical issues.



**FIG. S1 O16-antigen LPS is only present in L9 extracted LPS.** LPS was extracted from MG1655 and DFB1655 L9, then subjected to SDS-PAGE and silver staining. Marker sizes (kDa) were superimposed from the PageRulerTM PreStained Protein Ladder. \* indicates the addition of beta-mercaptoethanol (BME) during sample preparation.