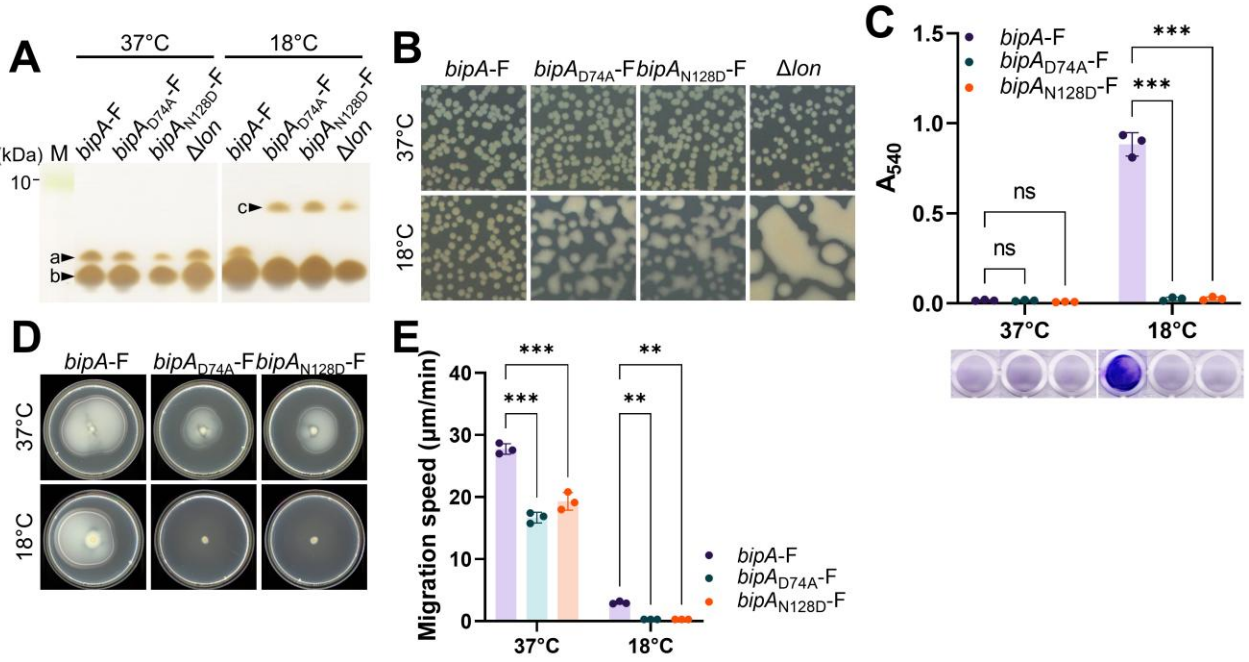


Fig. S2. Cell surface-associated phenotypes of chromosomal FLAG-tagged *bipA* mutant strains. Chromosomal FLAG-tagged BipA strains were analyzed under the indicated temperature conditions as described in the Materials and Methods. (A) Lipid A-core oligosaccharide profiles were analyzed using tricine-SDS–PAGE followed by silver staining. The Δ*lon* strain was included as a control for M-LPS analysis. Arrowheads indicate the lipid A-core oligosaccharide bands, designated a–c. M, molecular weight marker. (B) Capsule-associated colony morphology was examined on LB agar plates after incubation at 37°C or 18°C. The Δ*lon* strain was included as a control for the capsule-associated phenotype. (C) Biofilm formation was quantified using crystal violet staining. Representative crystal violet-stained wells are shown below the graph. (D and E) Swimming motility was assessed at 37°C and 18°C on soft LB agar plates (D), and migration speed was calculated by dividing the migration distance by the incubation time (E). For Panels C and E, the data presented are the mean ± SD of three independent experiments, with individual data points shown as circles. Statistical significance was determined using ordinary two-way analysis of variance (ANOVA) followed by Dunnett's multiple comparison test, with the BipA-F strain used as the control for each temperature; ns, not significant; $^{**}p < 0.01$; $^{***}p < 0.001$.