

Figure S1 Effects of *C. sakazakii* on egg laying in *akt-1* (BQ1) and *let-363* (VC2312) populations. The representative graphs show a significant reduction in the number of eggs in *C. sakazakii* infected mutants when compared to *E. coli* OP50 (A and B). The results suggest that *C. sakazakii* infection can form premature egg formation and egg-laying defects in the mutants associated with the PI3K/AKT/mTOR pathway proteins. Data represented mean \pm s.d. of three independent biological triplicates and statistical analysis was performed by one-way ANOVA followed by Duncan's post hoc analysis (*P<0.005, **P<0.001, and ***P<0.0001).



Figure S2 Effects of pharyngeal pathology of *C. sakazakii* in *akt-1* (BQ1) and *let-363* (VC2312) populations. A reduction in pumping rate was consistently observed in (A) *akt-1* and (B) *let-363*. The mutants failed to delay the *C. sakazakii* invasion and further infection completely arrested the pumping rate. Data represented mean \pm s.d. of three independent biological triplicates and statistical analysis was performed by one-way ANOVA followed by Duncan's post hoc analysis (*P<0.005, ***P* < 0.001, and ****P*<0.0001).



Figure S3 The cluster analysis of unique proteins from 24 and 48 h *C. sakazakii* infection. The PPI cluster network of 24 h (A) and 48 h (B) are constructed from the unique proteins expressed during CS infection. The identified clusters are colored in red, green, and blue. The solid and the dotted lines indicate connection within the same and different cluster respectively. Different color indicates different type of interactions. (Cyan-from curated databases; Pinkexperimentally determined; Blue- gene co-occurrence; Khaki-from text mining; Black-co expression; Light blue-protein homology).