

Supplementary Materials

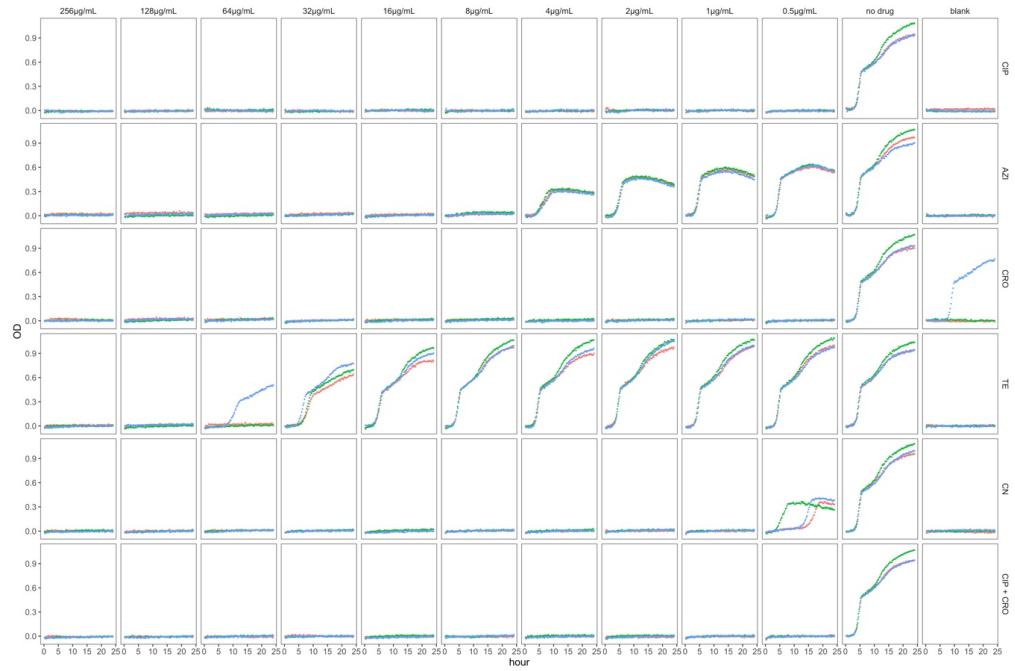


Figure S1. Three replicates of growth dynamics monitoring. A clinical *E. coli* isolate was treated, three times, with ciprofloxacin (CIP), azithromycin (AZI), ceftriaxone (CRO), tetracycline (TE), and gentamicin (CN) at different concentrations. Red dots: replicate #1, green dots: replicate #2, and blue dots: replicate #3.

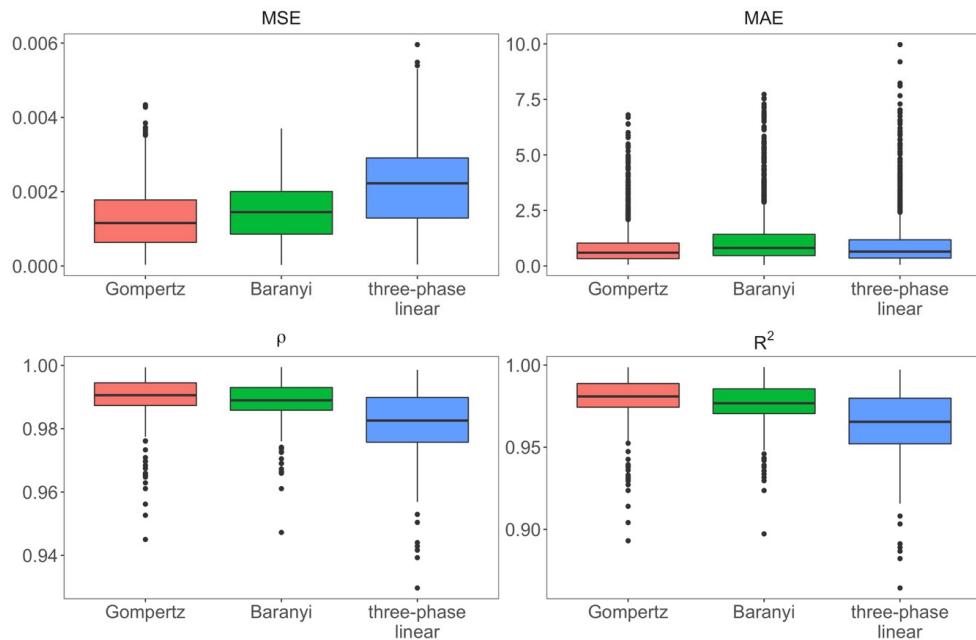


Figure S2. Comparison between performance of Gompertz's, Baranyi's and three-phase linear model. For each growth curve, the three models were utilized to predict OD values at every timepoints from 0 to 24h. The actual and predicted values were used to calculate the mean square error (MSE), mean absolute error (MAE), correlation coefficient (ρ), and correlation of determination (R^2). The lower MSE and MAE; higher ρ and R^2 , the better a model is.

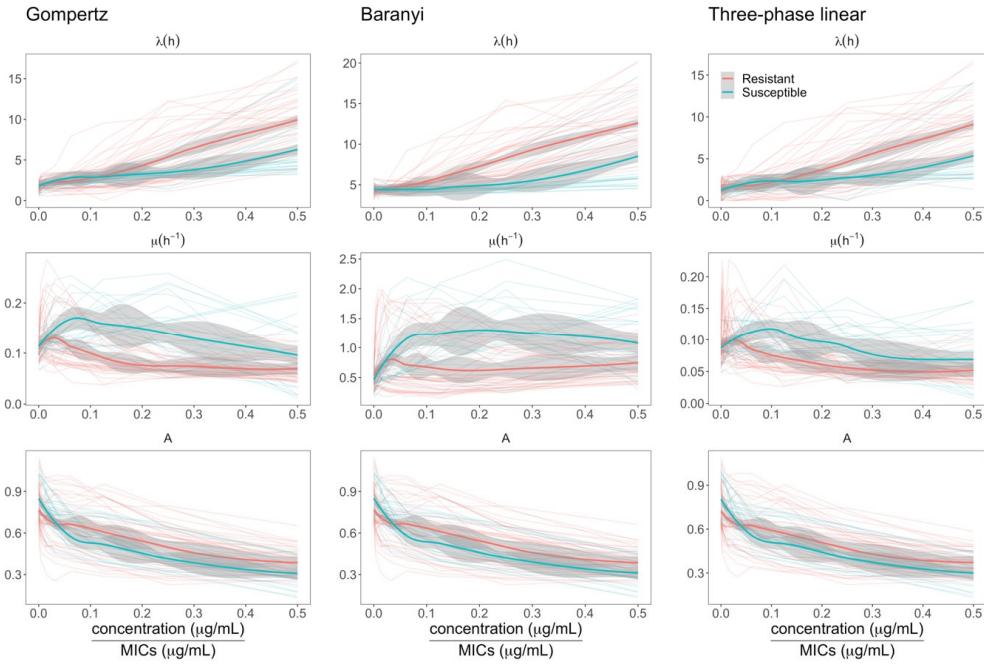


Figure S3. Comparison between growth parameters estimated from Gompertz's, Baranyi's and three-phase linear model. Parameters include lag-phase period (λ), maximum growth rate (μ), and maximum cell density (A). The horizontal and vertical axes are relative concentration of antimicrobials and values of the growth parameters, respectively.