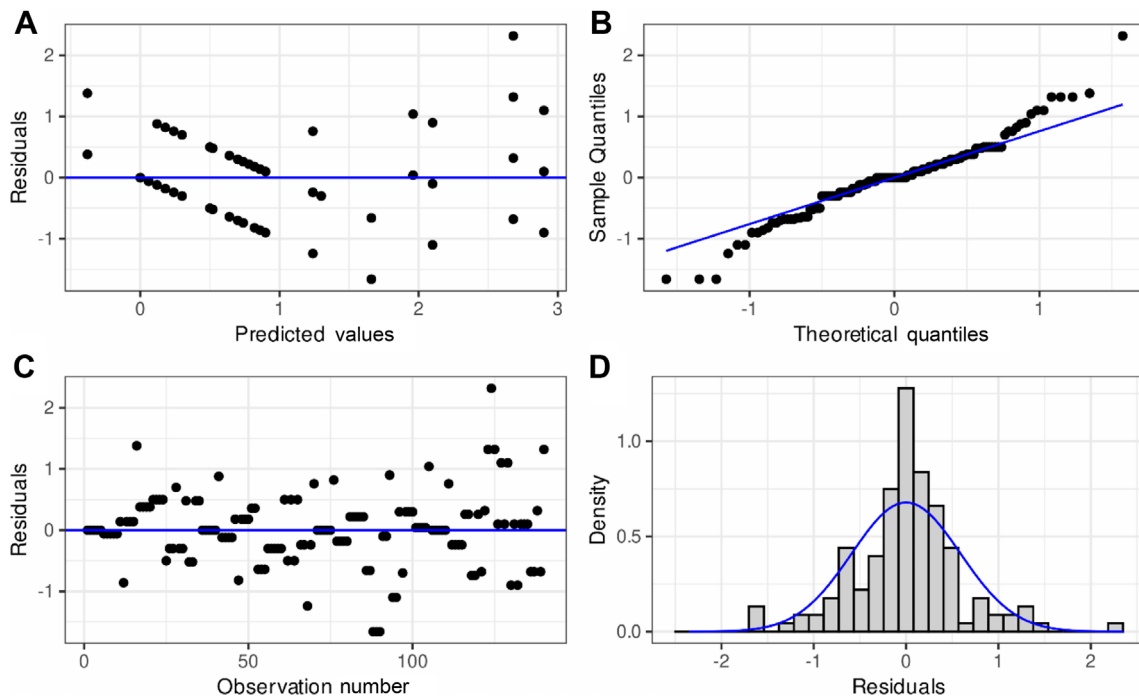


**Supplementary Fig. 3.** Antagonism of deletion mutant lines and their volatile effect on four pathogenic fungi. Bacterial stock cultures were inoculated on MS media and incubated for 10 days, followed by filtration using a cotton ball and a 10-ml syringe to obtain an  $OD_{600nm}$  of 0.6. *In vitro* fungal growth inhibition assays were conducted by culturing the bacteria on one section of a bi-Petri dish, and after 5 days, inoculating the other sections with the fungi. The medium was then incubated at 28°C for 5 days.



**Supplementary Fig. 4.** The diagnostic plots from a linear ANOVA model are generated using the functions provided by the ggResid-panel package in R. These plots include sample quantiles, which are essential statistical measures for assessing the normality and homoscedasticity assumptions of the model.