

Fig. S1 Effect of different concentrations of GO on conjugative transfer within the same bacterial species (*E. coli* to *E. coli*).

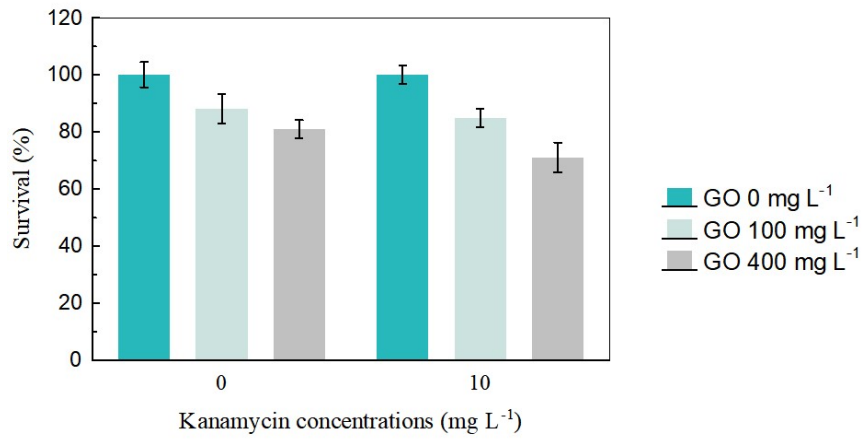


Fig. S2 The effects of GO on *E. coli* resistant to kanamycin. The preparation and treatment conditions for bacterial suspensions were identical to those outlined in the main text's Section 2.3, with the sole difference being that the LB agar plates contain 0 and 10 mg L⁻¹ kanamycin.

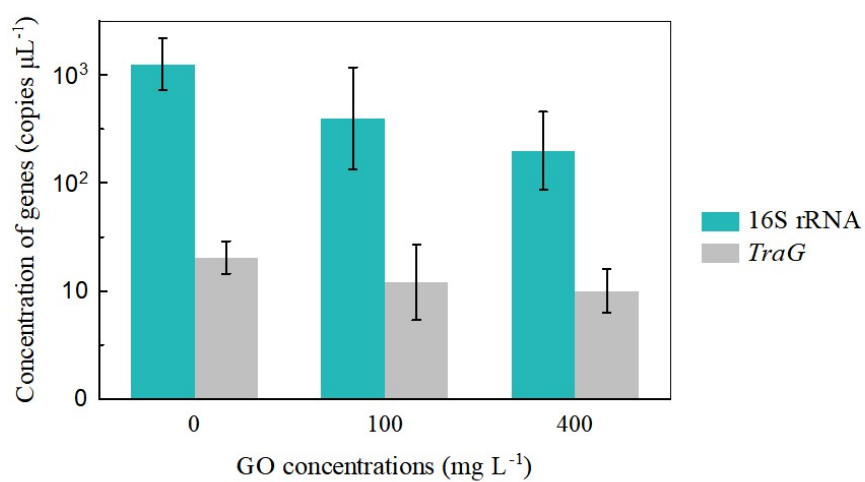


Fig. S3 Effects of different concentrations of GO on copies of genes in *E. coli*. The preparation and treatment conditions for bacterial suspensions were identical to those outlined in the main text's Section 2.3.

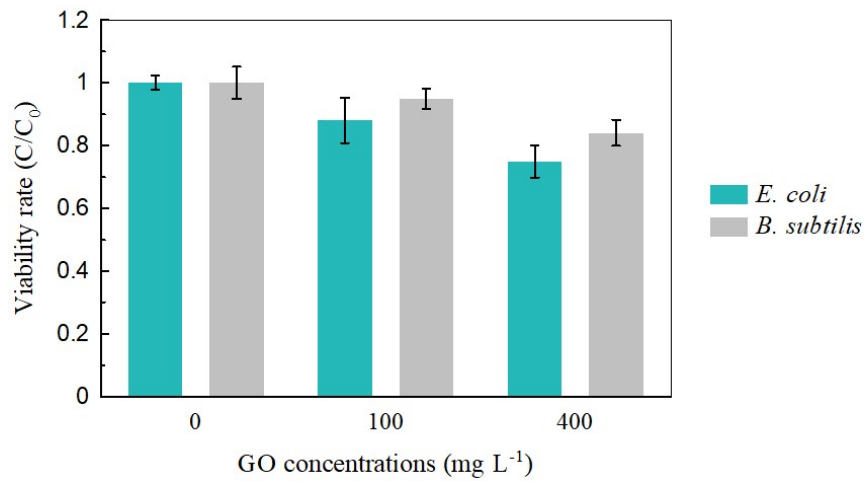


Fig. S4 The effect of GO on bacterial viability. The preparation and treatment conditions for bacterial suspensions were identical to those outlined in the main text's Section 2.3, with the sole difference being that the LB agar plates used did not contain antibiotics.