**Supplementary material**

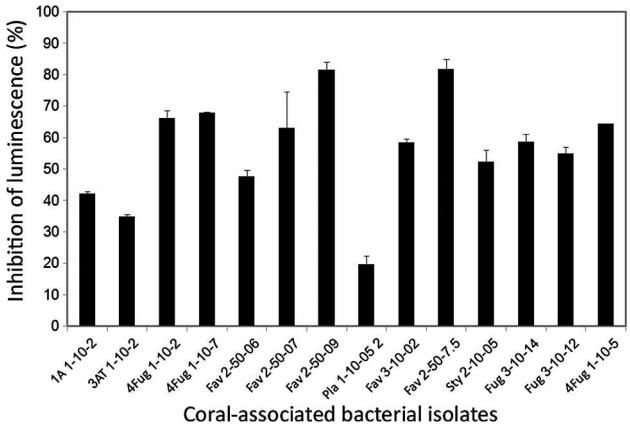


Figure S1. Inhibition of luminescence (%) assessed by the indicator strain *E. coli* pSB1075. Inhibition of activity after 24 h of growth was determined by comparing the luminescent signal of the cell-free culture supernatant and that received after the exogenous addition of 3-oxo-C12. Coral bacterial cell-free culture supernatants exhibited decreased signals with the synthetic AHL and were considered to possess inhibition activity. Error bars = SD, $n = 3$ independent experiments. Dunnett's test indicated significant differences between the tests and the controls ($p < 0.05$).

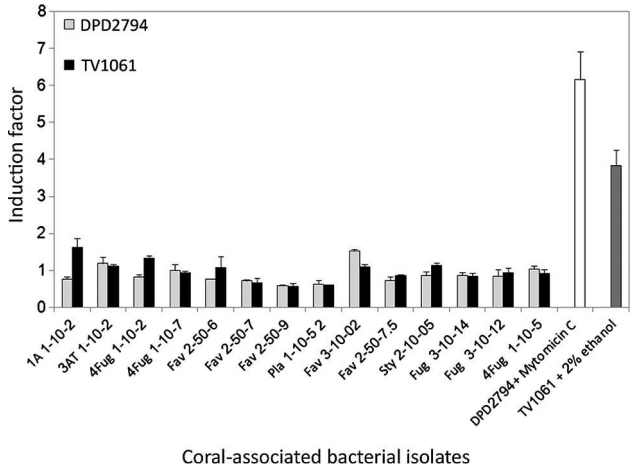


Figure S2. Incubation of bacteria previously found to have inhibitory activity with a cytotoxic/genotoxic panel, *E. coli* DPD2794 and TV1061, susceptible to genotoxic and cytotoxic substances, respectively. The positive controls for *E. coli* DPD2794 and TV1061 were mytomicin C and 2% ethanol, respectively. The bioluminescent signal of bacteria is expressed as the normalized IF as described in Equation (1). Results are the means ± SD ($n = 3$).

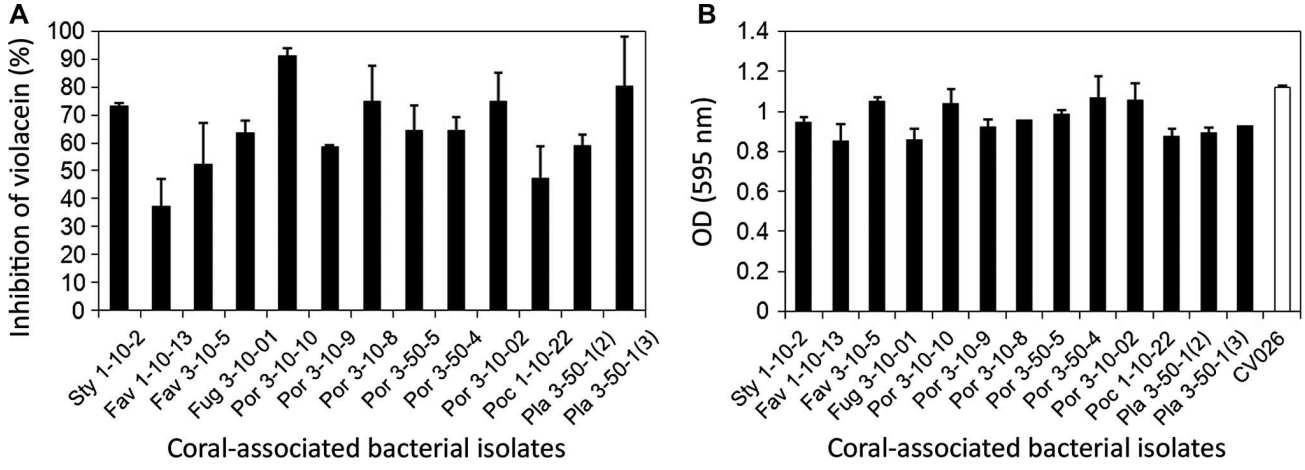


Figure S3. (A). Inhibition of violacein (%) production by cell-free culture supernatants of coral-associated bacterial isolates. Bars indicate means ± SD ($n = 3$). Dunnett's test applied to the data shows a significant difference between the test samples and the control ($p < 0.05$). (B) The influence of cell-free culture supernatants on the growth of *C. violaceum* CV026; the bioreporter was not affected significantly (ANOVA, Dunnett's test, $p > 0.05$).

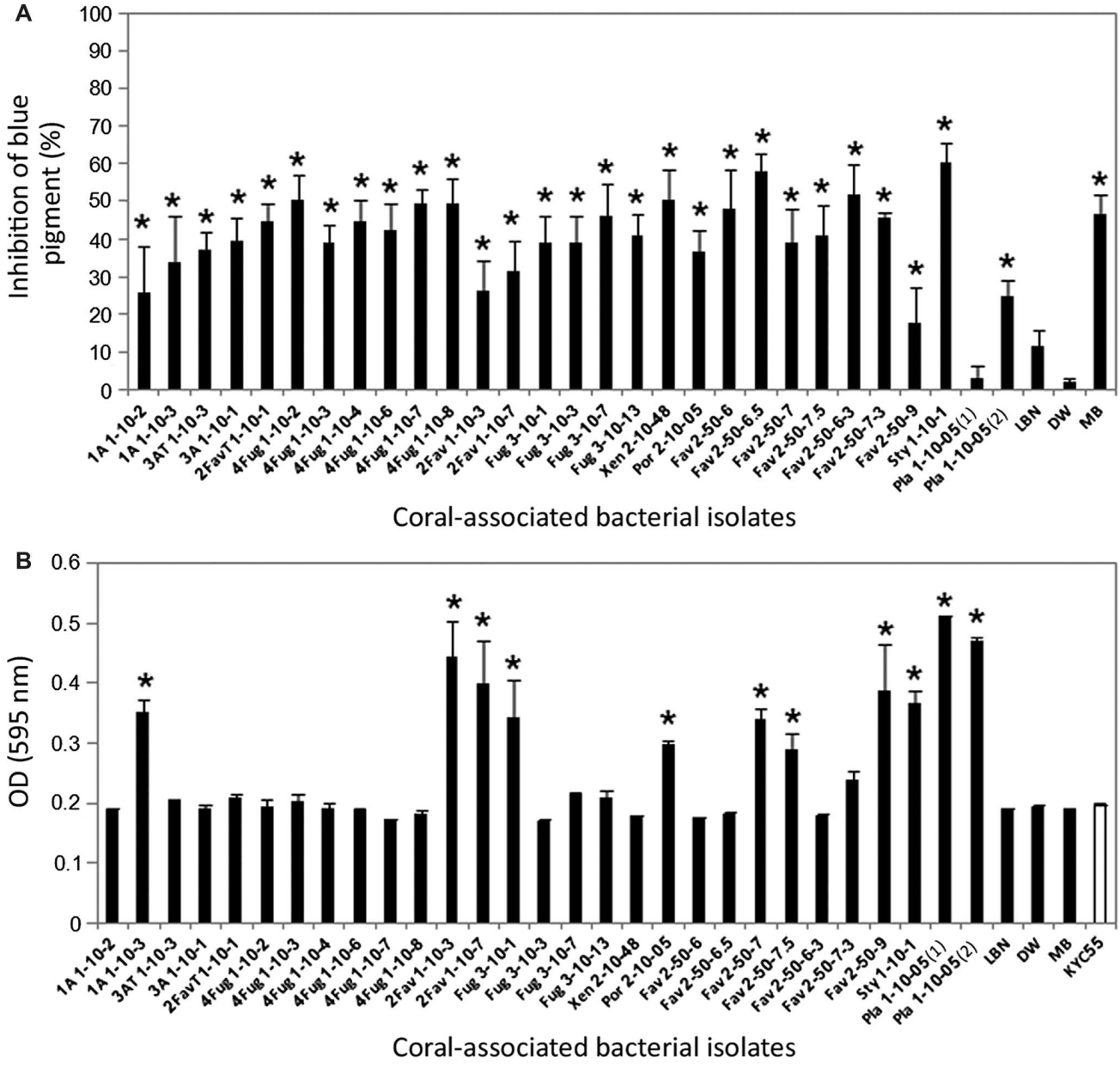


Figure S4. (A). Inhibition of X-Gal cleavage by β-galactosidase (%) attributed to coral isolate cell-free culture in a 96-well microtiter plate. (B) Influence of cell-free cultures on the growth of *A. tumefaciens* KYC55. Error bars = ± SD, $n = 3$ independent replicates. *Represents significant differences between the tests and the control; Dunnett's test ($p < 0.05$).