

Supplementary materials

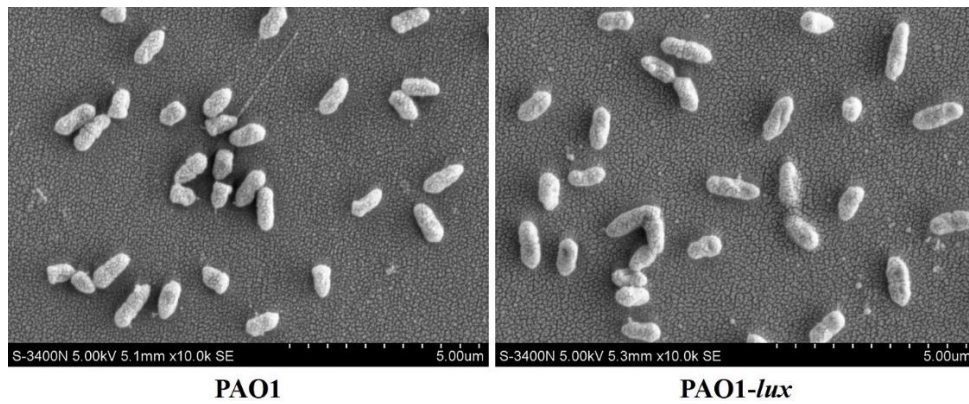


Fig. S1 Surface structures of the standard PAO1 strain (left) and the recombinant PAO1-*lux* strain (right) were observed by SEM

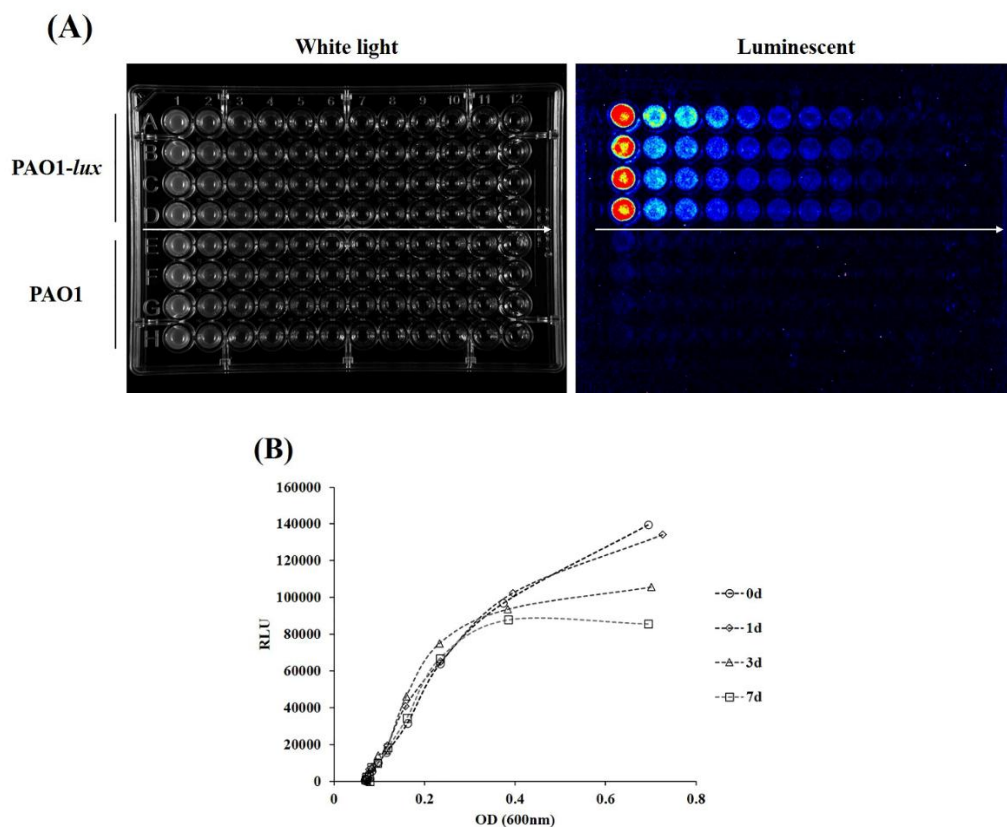


Fig. S2 Characteristics of the bioluminescent PAO1-*lux* strain. **A** The PAO1-*lux* and PAO1 strains were cultured to logarithmic phase and serial dilutions were inoculated into a 96-well plate, which were photographed using a Bio-Rad imaging system in white light and luminescent modes. **B** The 96-well plate was observed at the 1st, 3rd, and 7th day. The OD at 600 nm and RLU were detected by a Multi-Mode Reader at the same time

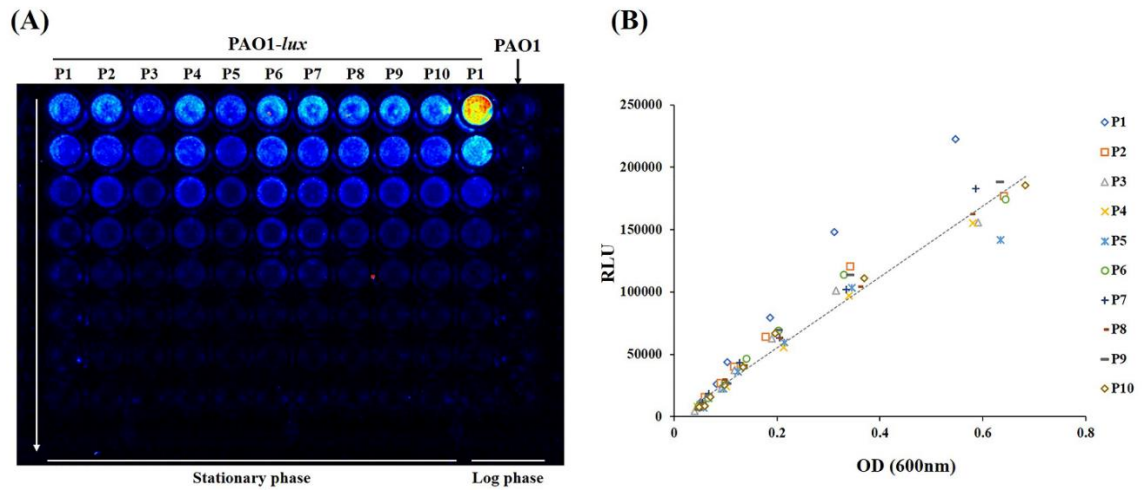


Fig. S3 Characteristics of the bioluminescent PAO1-*lux* strain for ten consecutive generations. **A** The PAO1-*lux* strain of ten generations (P1 to P10) were cultured to stationary phase and serial dilutions of each generation were inoculated into a 96-well plate for imaging and detection. **B** The linear relationship between the OD value at 600 nm and the RLU of the PAO1-*lux* strain for ten generations

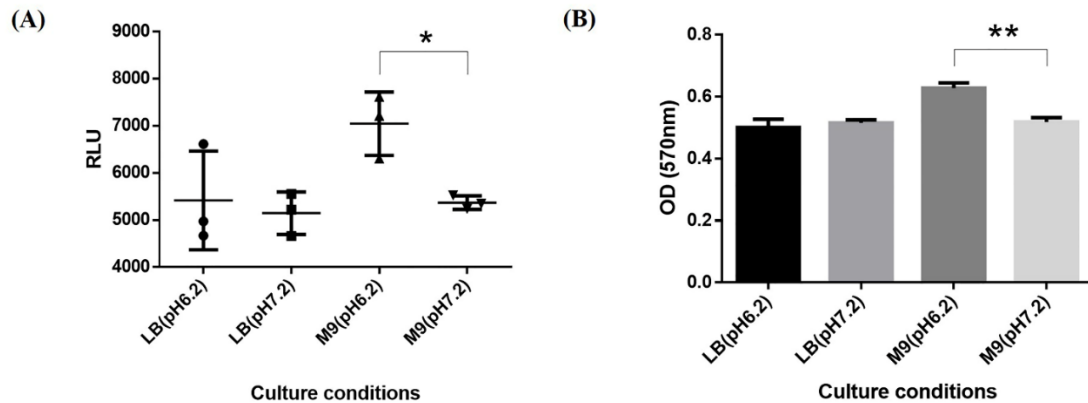


Fig. S4 Bacterial adhesion was evaluated by the bioluminescence method (A) and crystal violet staining method (B) under different nutritional conditions (LB or M9 medium) and different pH conditions (pH = 6.2 or 7.2)