



Fig S1: Chemotaxis in a soft agar plate containing 10mM malate. A) Average chemotaxis ring diameter of cells in a soft agar plate containing malate with standard deviation. Given in the average of 3 biological replicates. B) Representative images of WT(empty vector), Δaer (empty vector), and Δaer (pRK Aer), and Δaer (pRK Aer $\Delta PilZ$).