

Figure SF1. The neutral fitnesses of wild-type and *rhlA*- mutants in swarming competitions is not frequency dependent. Wild-type and *rhlA*- cells where mixed at ratios 1:100, 1:10, 10:1 and 100:1 and the mixes where used to inoculate swarming plates. The swarming colonies at 24 h where harvested, re-suspended in PBS and their ratio of wild-type to *rhlA*- cells was measured by the CFU method described in *Experimental Procedures*. The 1:1 data from the experiments in figure 2 is also show (gray data point).

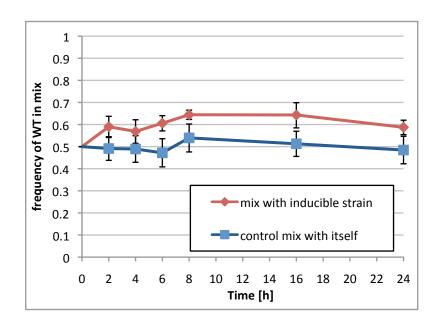


Figure SF2. The frequency of wild-type bacteria in a 1:1 mixed swarming competition against the inducible strain ($P_{BAD}rhlAB$) increases rapidly within the first 2 h but remains approximately constant for the remaining 24 h (data in red). The blue data is from a control experiment where the wild-type is mixed with itself. Both experiments were carried out with fluorescently labeled bacteria and the cell numbers where quantified with the CFU method described in *Experimental Procedures*.