



**Figure 2 -figure supplement 1. Growth rate determination.**

A) Approximate cell counts at different time points, for each of the pools of cells.  $t=0$  is after scraping the cells off an agar plate on which they had grown for approximately 16 hours. The coloured dots indicate the cell counts estimated by optical density, the dashed line starts from the average cell count at  $t=0$  (disregarding 4B) and increases with the standard logarithmic growth rate of  $0.42\text{h}^{-1}$  (Di Talia et al., 2007). Since the measurements were close to the dashed line throughout the experiment, it was fair to assume logarithmic growth. When calculating individual growth rates, the assumption of a median growth rate of  $0.42\text{ h}^{-1}$  in each pool was used rather than the cell counts, since it was deemed more robust. B) Comparison of the growth rates obtained from two replicate experiments; each dot is a deletion strain. The growth rates per strain can be found in Figure 2 -source data 1. C) Distribution of calculated growth rates for over 4000 knock-out strains.