



Fig. S2. Examples of live cell microscopy showing ST64B prophage lysis gene and *cib* expressing individual *S. Tm*^{lysST::T7 pol} bacteria. Initially, microcolonies of *S. Tm*^{lysST::T7 pol p^{PT7} rfp P_{cib} gfp} were cultured in microfluidic plates for 3 h in LB only. Subsequently, media was exchanged against LB supplemented with 100 μ M DTPA for 20 min to induce *cib* expression of bacteria. Next LB supplemented with 100 μ M DTPA and 0.5 μ g/ml was applied to induce the bacterial SOS-response and thus full expression of *cib* and the expression of ST64B prophage lysis genes. After 20 min, the medium was changed back to LB supplemented with 100 μ M DTPA only, for the remaining time of the experiment. Images show that only a small fraction of the *S. Tm*^{lysST::T7 pol p^{PT7} rfp P_{cib} gfp} population expresses *cib* (*gfp*) and ST64B prophage lysis genes (*rfp*), simultaneously.