

**Additional file 5.** Growth curves for: (a) Biotransformations with the  $\Delta lapA$ ,  $\Delta fliQ$  and  $\Delta lapA\Delta fliQ$  strains described in Fig. 3 c and d. (b) Biotransformation with the  $\Delta lapA\Delta fliQ$  double mutant in the multiple loads of precursor experiments described in Fig. 6

