

		wild type	Δ arcS	KI-arcS	Δ hptA	KI-hptA	Δ arcA	KI-arcA		
		41.9 \pm 1.7	55.0 \pm 1.3	41.8 \pm 2.7	55.0 \pm 1.6	44.1 \pm 2.0	64.5 \pm 1.2	44.4 \pm 0.7		
growth	doubling time in min	56.6 \pm 1.2	73.4 \pm 3.5	n/a	70.9 \pm 4.0	n/a	88.7 \pm 5.6	n/a	silent	+pBAD33
		57.6 \pm 0.9	72.2 \pm 3.5	n/a	72.9 \pm 2.6	n/a	87.9 \pm 5.8	n/a	induced	
	n/a	70.5 \pm 2.4	n/a	67.2 \pm 3.1	n/a	65.3 \pm 2.0	n/a	silent		
	n/a	61.9 \pm 1.4	n/a	63.2 \pm 2.9	n/a	64.0 \pm 1.8	n/a	induced		
			+pBAD33-arcS	+pBAD33-hptA	+pBAD33-arcA					

Figure S1: Phenotypic complementation of growth defects in Δ arcS, Δ hptA, and Δ arcA mutant strains. The corresponding strains were grown aerobically to stationary phase, and the doubling time was calculated from the exponential phase. KI, complementation by restoring the wild type phenotype by reintroducing a wild type copy of the appropriate gene into the mutated locus. For complementation by ectopic gene expression, the appropriate genes were cloned into pBAD33 under control of the inducible P_{BAD} promoter. Mutants bearing the empty vector (rows 2 and 3) or the vector harboring the corresponding complementing gene (rows 4 and 5) were grown under inducing and non-inducing (silent) conditions. n/a, not tested.