

Table S2: Primers used for the construction of *E. coli* double-knockout and *A. tumefaciens* up-mutant homologs gene-knockout mutants

Primer name	Primer sequence (5'-3')	Purpose
F001	CGGTAAAGCCCCTGCGTTTG	Double KO construction (Δ <i>sufA</i>)
F002	GTGGCTAACTGGGTGAAGAATC	Double KO construction (Δ <i>sufA</i>)
F003	GGGGTATGCATTGACATATAG	Double KO construction (Δ <i>frmR</i>)
F004	CAACGATTTCAGCGGTTTAC	Double KO construction (Δ <i>frmR</i>)
F005	ATGATTGAACAAGATGGATTGCAC	Double KO construction (<i>Km^R</i>)
F006	TTAGAAGAACTCGTCAAGAAGG	Double KO construction (<i>Km^R</i>)
F007	GTTCCATCAGTCATTATCTCAG	Double KO construction (Δ <i>frmA</i>)
F008	CATGATTACGAATTCCGCCGTGGTAGGAGGCAA	pK18mobsacB- <i>ATU_RS04380</i> construction
F009	GACTCTAGAGGATCCTTAGGCACTTGCCGGGCTGA	pK18mobsacB- <i>ATU_RS04380</i> construction
F010	CATGATTACGAATTCGGCACAGGACGGCGTTTC	pK18mobsacB- <i>ATU_RS08905</i> construction
F011	GACTCTAGAGGATCCTCATCCGCGAACGGCAGG	pK18mobsacB- <i>ATU_RS08905</i> construction
F012	CATGATTACGAATTCCTATCGCAAATCGGGAGTGTG	pK18mobsacB- <i>ATU_RS08390</i> construction
F013	GACTCTAGAGGATCCCAGCCGATCGGACTGAAATC	pK18mobsacB- <i>ATU_RS08390</i> construction
F014	ATTTTAACTGAAGACCTACATCCGGTA	pK18mobsacB Δ <i>ATU_RS04380</i> construction
F015	GTCTTCAGTTAAAAATGCTCCATCAGAA	pK18mobsacB Δ <i>ATU_RS04380</i> construction
F016	ATAGCTGAGTCATGATCGCAAAGCCCAT	pK18mobsacB Δ <i>ATU_RS08905</i> construction
F017	ATCATGACTCAGCTATCGAGGTGCGACG	pK18mobsacB Δ <i>ATU_RS08905</i> construction
F018	CTATGATCATGCACGAGCTTTTCGATTGTA	pK18mobsacB Δ <i>ATU_RS08390</i> construction
F019	GCTCGTGCATGATCATAGACCAGCGCGC	pK18mobsacB Δ <i>ATU_RS08390</i> construction