

Table S1. List of primers used for the experiments in this work.

No	sequence (5'-3')	notes	template DNA
P1	gattcattaatgcagctggcagc	Amplification of HC cassette with <i>lacZ</i> homology	pMW- <i>hsvtk-cat</i>
P2	ttatTTTTgacaccagaccaactggtaatggtag cgaccgtgtactgagagtgcaaatatgttacg		
P3	cgatggcggagctgaattac	Amplification of <i>lacZ</i> from MG1655 (Figure 3)	genomic DNA (MG1655)
P4	gattaatgatcagtggcgcaagaac		
P5	cctaacagcaccaggatttaaggtgaaattaat ctttcatcatacacgagcttcatgcatcg	Amplification of HK/HKH cassette with <i>yiiDE</i> locus homology (Figures 5)	pHK, pHKH or pJ204- <i>pT5-mrfp</i>
P6	ctgatggagagggggcgggtgctgcctctctcatt caggtcactggcgatgctgtcggaaac		
P7	atgaccatgattacggattcactggccgctgttt tacaacgagattacgcgcagaccacc	Amplification of HK/HKH cassette with <i>lacZ</i> locus homology (Figures 4, 5)	
P8	ttatTTTTgacaccagaccaactggtaatggtag cgaccgcgcccttaggtacgaactc		
P9	cactaccgcagcagggaaataattcccgccca aatagcttgagattacgcgcagaccacc	Amplification of HK, HKH or <i>pT5-mrfp</i> cassette with <i>proV</i> locus homology (Figures 4, 5)	
P10	actgtccgccgctggcgtggtatcccacggatt atTTTgacgcccttaggtacgaactc		
P11	agcatgccactattgagtaaagccagtcaggg gagagaacgattacgcgcagaccacctg	Amplification of HK/HKH cassette with <i>rssB</i> locus homology (Figures 5)	
P12	cattagcaggtaatgcaatttagcccgcgttat cgTTTgcgcccttaggtacgaactc	Amplification of HK/HKH cassette with <i>rssB</i> locus homology (Figures 5)	

P13	ctttacactttatgcttccggetc	Amplification of $p_L-gfp^{mut3.1}$ cassette with <i>lacZ</i> locus homology (Figure 4)	pUC- $p_L-gfp^{mut3.1}$	
P14	gacaccagaccaactggaatgcatcagagca gattgtactgagag			
P15	cattaccagttggtctggtgtcaaaaataataat		Genomic DNA	
P16	gagccggaagcataaagtgtaaag			
P17	cgatggcggagctgaattac			
P18	gattaatgatcagtggcgcaaagaac			
P19	cctaacagcaccaggatttaaggtgaaattaat ctttcatgagatctcgatcccgcgaaattaatac	Amplification of $p_{T7}-mrfp$ cassette with <i>yjiDE</i> locus homology (Figure 5)	pET23d- <i>mrfp</i>	
P20	ctgatggagagggcggtgctgcctctctcatt caggtcaccattcgccattcagcaaaaaac			
P21	actgtccgccgctggcgtggtatcccacggatt atthtgagatcccgcgaaattaatacgaactcac	Amplification of $p_{T7}-mrfp$ cassette with <i>proV</i> locus homology (Figure 5)		
P22	cactaccgcagcagggaaataattcccgcca aatagcttccattcgccattcagcaaaaaac			
P23	ttatthttgacaccagaccaactggaatggtag cgaccggagatctcgatcccgcgaaattaata c	Amplification of $p_{T7}-mrfp$ cassette with <i>lacZ</i> locus homology (Figure 5)		
P24	atgacatgattacggattcactggccgctgtht tacaacccattcgccattcagcaaaaaac			
P25	cattagcaggaatgcaaatttagcccgcgtht cgthtgcctcaacgacaggagcac	Amplification of $p_{T7}-mrfp$ cassette with <i>rssB</i> locus homology (Figure 5)		
P26	agcatgccactattgagtaaagccagtcaggg gagagaacgtccattcgccattcagc			
P27	gtgthtgaaggcacgtatctgtht	<i>yjiDE</i> test primers		

P28	ctgaacagtgatgtagcaagacacg	<i>yiiDE</i> test primers
P29	atggttagttatcgcccaggatg	
P30	cagcggttggaataatagcgag	<i>lacZ</i> locus sequence/test primer
P31	gaagaaggcacatggctgaatatcg	
P32	ggatacgacgataccgaagacag	
P33	gattcattaatgcagctggcacg	
P34	gaagagagtcaattcagggtgg	
P35	ctggaagacgggacggaaatg	<i>proV</i> test primers
P36	gcgcgcttagatcgtgagg	
P37	caacggggataacggctttttgac	<i>rssB</i> test primers
P38	ggcaatgccaatatggggaac	
P39	cggttcaaagcatagcttaaacacc	<i>mrfp</i> test primers
P40	gggaaggacagtttcaggtagtc	
P41	cgtctttatcctggattacgaccaatc	<i>hsvtk</i> test primers
P42	gtgcaaataaatttaagggttaagtttccgatg	<i>gfp^{mut3.1}</i> test primers
P43	gtcggcttgacaaaaagaaccg	<i>Km^r</i> gene sequence primer
P44	ctgccgtaccgctcagttgac	<i>hsvtk_{mod}</i> sequence primer