Table S1. Bacterial strains and plasmids used in this study.

Table S1

	Relevant genotype or characteristic(s)	Source
CFT073	*E. coli* wild type, clinical isolate	Mobley, H.
Tn library	EZ-Tn5™ <R6Kγori /KAN-2> transposon library in *E. coli* CFT073 background	Mobley, H.
ybhK::kan	CFT073 Δ*ybhK*::*aph*, Kan^R	This study
nmpC::kan	CFT073 Δ*nmpC*::*aph*, Kan^R	This study
mltB::kan	CFT073 Δ*mltB*::*aph*, Kan^R	This study
nagC::kan	CFT073 Δ*nagC*::*aph*, Kan^R	This study
acnB::kan	CFT073 Δ*acnB*::*aph*, Kan^R	This study
c1884::kan	CFT073 Δc1884::*aph*, Kan^R	This study
dsbA::kan	CFT073 Δ*dsbA*::*aph*, Kan^R	This study
udhA::kan	CFT073 Δ*udhA*::*aph*, Kan^R	This study
cyaA::kan	CFT073 Δ*cyaA*::*aph*, Kan^R	This study
crp::kan	CFT073 Δ*crp*::*aph*, Kan^R	This study
ybhK	CFT073 Δ*ybhK*::FRT	This study
nmpC	CFT073 Δ*nmpC*::FRT	This study
mltB	CFT073 Δ*mltB*::FRT	This study
nagC	CFT073 Δ*nagC*::FRT	This study

acnB	CFT073 Δ*acnB*::FRT	This study
c1884	CFT073 Δc1884::FRT	This study
dsbA	CFT073 Δ*dsbA*::FRT	This study
udhA	CFT073 Δ*udhA*::FRT	This study
cyaA	CFT073 Δ*cyaA*::FRT	This study
crp	CFT073 Δ*crp*::FRT	This study
pKM208	IPTG-inducible lambda red recombineering system, Amp^R	Mulvey, M.
pCP20	Contains flipase recombinase, Amp^R	Laboratory stock
pKD4	Contains kanamycin selection marker used to construct mutants	Laboratory stock

Table S2. DNA sequences of primers used in this study.

Name	Sequence (5'- 3' orientation)	Purpose
PCR-1	gtggcaaagcaaaagttcaaaatca	Anneals with EZ-Tn5™ <R6Kγori /KAN-2> specific (1st PCR)
C-tail	gtgactggagttcagacgtgtgctcttccgatctggggggggggggggggg	C-tail complementary
PCR-2	aatgatacggcgaccaccgagatctacactctttggggttgagatgtgtataagagacag	Nested PCR (2nd PCR)
Sequencing	acactctttggggttgagatgtgtataagagacag	Sequencing Primer
BC45G	caagcagaagacggcatacgagattgttgactgtgactggagttcagacgtgtgctcttccgatctggggggggggggggggg	agtcaaca (barcode)
BC46G	caagcagaagacggcatacgagatacggaactgtgactggagttcagacgtgtgctcttccgatctgggggggggggggggggg	agttccgt (barcode)
BC47G	caagcagaagacggcatacgagattctgacatgtgactggagttcagacgtgtgctcttccgatctggggggggggggggggg	atgtcaga (barcode)
BC48G	caagcagaagacggcatacgagatcgggacgggtgactggagttcagacgtgtgctcttccgatctgggggggggggggggggggg	ccgtcccg (barcode)
BC49G	caagcagaagacggcatacgagatgtgcggacgtgactggagttcagacgtgtgctcttccgatctgggggggggggggggggg	gtccgcac (barcode)
BC50G	caagcagaagacggcatacgagatcgtttcacgtgactggagttcagacgtgtgctcttccgatctggggggggggggggggg	gtgaaacg (barcode)
BC51G	caagcagaagacggcatacgagataaggccacgtgactggagttcagacgtgtgctcttccgatctgggggggggggggggggg	gtggcctt (barcode)
BC52G	caagcagaagacggcatacgagataccgaaacgtgactggagttcagacgtgtgctcttccgatctgggggggggggggggggg	gtttcggt (barcode)
BC53G	caagcagaagacggcatacgagattacgtacggtgactggagttcagacgtgtgctcttccgatctgggggggggggggggggg	cgtacgta (barcode)
BC54G	caagcagaagacggcatacgagatatccactcgtgactggagttcagacgtgtgctcttccgatctgggggggggggggggggg	gagtggat (barcode)
BC55G	caagcagaagacggcatacgagatatatcagtgtgactggagttcagacgtgtgctcttccgatctgggggggggggggggggg	actgatat (barcode)
BC56G	caagcagaagacggcatacgagataaaggaatgtgactggagttcagacgtgtgctcttccgatctgggggggggggggggggg	attccttt (barcode)
F_Kan_cyaA	ttgtacctctatattgagactctgaaacagagactggatggtgtaggctggagctgcttc	Forward primer to construct the mutant with a kanamycin selection marker
R_Kan_cyaA	tcaagaaaaatactgctgcaacagcggcgcgtcatgctcccatatgaatatcctccttag	Reverse primer to construct the mutant with a kanamycin selection marker
F_check_cyaA	cagttcaacgaccaggcccggatgg	Check the excision of the kanamycin marker
R_check_cyaA	ctggacgactggggtggcgacagcg	Check the excision of the kanamycin marker
F_Kan_acnB	gtgctagaagaataccgtaagcacgtagctgagcgtgccggtgtaggctggagctgcttc	Forward primer to construct the mutant with a kanamycin selection marker

R_Kan_acnB	ttaaaccgcagtctggaaaatcaccccgtccgcttttcgcatatgaatatcctccttag	Reverse primer to construct the mutant with a kanamycin selection marker
F_check_acnB	tcaggcgcagtctgttgtgtcgatt	Check the excision of the kanamycin marker
R_check_acnB	cacttcatcaagcaaggccaggttt	Check the excision of the kanamycin marker
F_Kan_nmpC	atgaatatttatcgcgcagtgacatcattttttaataaaagtgtaggctggagctgcttc	Forward primer to construct the mutant with a kanamycin selection marker
R_Kan_nmpC	ttagaactgataaaccagacctacagcgacgatgtcgtcgcatatgaatatcctccttag	Reverse primer to construct the mutant with a kanamycin selection marker
F_check_nmpC	aaattaaggggatactacgtatcgc	Check the excision of the kanamycin marker
R_check_nmpC	ggatggttatatcgggaaaaggtta	Check the excision of the kanamycin marker
F_Kan_nagC	atgacaccaggcggacaagctcagataggtaatgttgatcgtgtaggctggagctgcttc	Forward primer to construct the mutant with a kanamycin selection marker
R_Kan_nagC	ttaattttccagcaaatgctggagcaaaataccgttgagccatatgaatatcctccttag	Reverse primer to construct the mutant with a kanamycin selection marker
F_check_nagC	cgcgatgccgtatattaccggtcgt	Check the excision of the kanamycin marker
R_check_nagC	tgcctttctggcgacgcaggaaatc	Check the excision of the kanamycin marker
F_Kan_mltB	ttgagttatgtaaagtccgtatcgggcagtgactaccgctgtgtaggctggagctgcttc	Forward primer to construct the mutant with a kanamycin selection marker
R_Kan_mltB	ttactgcacgcgcgccagcgccacggcttgtcctaactgccatatgaatatcctccttag	Reverse primer to construct the mutant with a kanamycin selection marker
F_check_mltB	tatgggggaagaggccattcattga	Check the excision of the kanamycin marker
R_check_mltB	gtgccgacaggcttctcttcactgc	Check the excision of the kanamycin marker
F_Kan_ybhK	ttgctgtttcctcgcaatttgcgctactgtagcgcggatagtgtaggctggagctgcttc	Forward primer to construct the mutant with a kanamycin selection marker
R_Kan_ybhK	ttaacctaaagcctgtaatgcctttccagcgcgctatgccatatgaatatcctccttag	Reverse primer to construct the mutant with a kanamycin selection marker
F_check_ybhK	acccggcgaatttcatcgacggtca	Check the excision of the kanamycin marker
R_check_ybhK	aaggcttgaacaagaaagtggtcga	Check the excision of the kanamycin marker
F_Kan_c1884	atgcagaacccatacagccggatctggtcgcgcgtggcccgtgtaggctggagctgcttc	Forward primer to construct the mutant with a kanamycin selection marker
R_Kan_c1884	ttattgcgggataaatcccagttcctgttgtgcaagttcacatatgaatatcctccttag	Reverse primer to construct the mutant with a kanamycin selection marker
F_check_c1884	tcagcatcgggcatgatgaattcct	Check the excision of the kanamycin marker
R_check_c1884	ttgggttttccaaaaggttgcagta	Check the excision of the kanamycin marker
F_Kan_dsbA	atgaaaaagatttggctggcgctggctggtttagttttaggtgtaggctggagctgcttc	Forward primer to construct the mutant with a kanamycin selection marker
R_Kan_dsbA	ttattttttctcggacagatatttcacagtatcagcataccatatgaatatcctccttag	Reverse primer to construct the mutant with a kanamycin selection marker
F_check_dsbA	cgggttgaaagcggcattcctgaaa	Check the excision of the kanamycin marker
R_check_dsbA	gcatgttcacctttctttttagcat	Check the excision of the kanamycin marker
R_check_cassette Kan	gcgcccctgcgctgacagccggaac	Reverse primer to check presence of kanamycin selection marker