Table S1. *Escherichia coli* strains and plasmids used in this study

Strain or plasmid	Genotype or phenotype	Source or reference
Strains		
MG1655	F^- λ^- *ilvG*$^-$ *rfb*-50 *rph*-1. Wild type *E. coli* K-12	Blattner et al. (1997)
MG1655 Δ*arnT*	MG1655 *arnT::frt*	This study
MG1655 Δ*lpxT*	MG1655 *lpxT::frt*	This study
MG1655 Δ*waaB*	MG1655 *waaB::frt*	This study
MG1655 Δ*waaH*	MG1655 *waaH::frt*	This study
MG1655 Δ*waaP*	MG1655 *waaP::frt*	This study
MG1655 Δ*waaQ*	MG1655 *waaQ::frt*	This study
MG1655 Δ*waaD*	MG1655 *waaD::frt*	This study
MG1655 Δ*waaE*	MG1655 *waaE::frt*	This study
MG1655 Δ*waaR*	MG1655 *waaR::frt*	This study
MG1655 Δ*waaS*	MG1655 *waaS::frt*	This study
MG1655 Δ*waaY*	MG1655 *waaY::frt*	This study
MG1655 Δ*waaZ*	MG1655 *waaZ::frt*	This study
Plasmids		
pACYC184	A low copy number cloning vector; Cm^R, Tet^R	Schottel et al. (1981)
pACYC184-WaaD	pACYC184-based expression vector for WaaD, Cm^R	This study
pACYC184-WaaE	pACYC184-based expression vector for WaaE, Cm^R	This study
pKD13	Template plasmid for the amplification of the kanamycin-resistance gene bordered by FRT sites, Km^R	Datsenko and Wanner (2000)
pKD46	λ Red recombinase expression plasmid Ts replicon, Amp^R	Datsenko and Wanner (2000)

pCP20	FLP helper plasmid Ts replicon, Amp^R, Cm^R	Datsenko and Wanner (2000)
pRL27	Tn5-RL27 (Km^R-*ori*R6 K) delivery vector: circularized PCR fragment from pRL23 (primers *tet*Ap-for and *oriT-rev*)	Larsen et al. (2002)

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