Table S1. Bacterial strains and plasmids used in this work

Strain or plasmid	Genotype and/or Relevant characteristics	Source or Reference
E. coli		
DH5α	*recA1 ϕ80 lacZ*ΔM15, *gyrA96*	Gibco BRL
SU101	*E.coli* JL 1434, *lexA71*::Tn5 (Def) *sulA211* Δ(*lacIPOZYA*) *169*/F' *lacI*^{q} *lacZ* ΔM15::Tn*9* (op+/op+)	(10)
BL21/pLys21	F^{-} *ompT* (*lon*) *hsdS*$_{B}$ (r$_{B}^{-}$ m$_{B}^{-}$) *gal dcm* (λDE3)	Invitrogen
S. entérica		
IMSS-1	*Salmonella enterica* serovar Typhi 9,12, d, Vi; Mexican clinical isolate	(44)
Plasmids		
pSR658-A	Vector encoding a LexA DBD sequences used for homodimerization studies; Tc^{r} *oriV*	(7)
pLexA-LeuO1-314	pSR658-A derived plasmid containing the fusion *lexA* $_{DBD}$-*leuO* (complete gene)	This study
pLexA-LeuO1-309	pSR658-A derived plasmid containing the fusion *lexA*$_{DBD}$-*leuO* with a deletion of fifteen nucleotides at the 3' end of *leuO*	This study
pLexA-LeuO1-304	pSR658-A derived plasmid containing the fusion *lexA*$_{DBD}$-*leuO* with a deletion of thirty nucleotides at the 3' end of *leuO*)	This study
pLexA-LeuO1-299	pSR658-A derived plasmid containing the fusion *lexA*$_{DBD}$-*leuO* with a deletion of forty-five nucleotides at the 3' end of *leuO*	This study
pLexA-LeuO1-294	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO* with a deletion of sixty nucleotides at the 3' end of *leuO*	This study
pLexA-LeuO1-284	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO* with a deletion of ninety nucleotides at the 3' end of *leuO*	This study
pLexA-LeuO1-214	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO* with a deletion of three hundred nucleotides at the 3' end of *leuO*	This study
pLexA-LeuOL27A	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-L27A (alanine substitution at residue L27 in L*euO*) fusion	This study
plexA-LeuOL46A	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-L46A (alanine substitution at residue L46 in LeuO) fusion	This study
pLexA-LeuOS54A	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-S54A (alanine substitution at residue S54 in LeuO) fusion	This study
pLexA-LeuOL60	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-L60A (alanine substitution at residue L60 in LeuO) fusion	This study
pLexA-LeuOT79A	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-T79A (alanine substitution at residue T79 in LeuO) fusion	This study
pLexA-LeuOP139A	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-P139A (alanine substitution at residue P139 in LeuO) fusion	This study
pLexA-LeuOS310A	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-S310A (alanine substitution at residue S310 in LeuO) fusion	This study
pLexA-LeuOV311A	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-V311A (alanine substitution at residue V311 in LeuO) fusion	This study
pLexA-LeuOC312A	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-C312A (alanine substitution at residue C312 in LeuO) fusion	This study
pLexA-LeuOK313A	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-K313A 8alanine substitution at residue K313 in LeuO) fusion	This study
pLexA-LeuOR314A	pSR658-A derived plasmid containing the *lexA*$_{DBD}$-*leuO*-R314A (alanine substitution at residue R314 in LeuO) fusion	This study
pFM*Trc*12	p*Trc*99A modified with replication origin p15A1 *lacI* p*trc*; Ap^{r}	(13)
pFM*TrcleuO*-50	pFM*Trc*12 derived plasmid containing the *leuO* gene	(8)
pLeuO1-309	pFM*TrcleuO*-50 derived containing a deletion of fifteen nucleotides at 3' end of *leuO*	This study
pLeuO1-304	pFM*TrcleuO*-50 derived containing a deletion of thirty nucleotides at 3'end of *leuO*	This study
pLeuO1-299	pFM*TrcleuO*-50 derived containing a deletion of forty-five nucleotides at 3'end of *leuO*	This study
pLeuO1-294	pFM*TrcleuO*-50 derived containing a deletion of sixty nucleotides at 3'end of *leuO*	This study
pLeuO1-284	pFM*TrcleuO*-50derived containing a deletion of ninety nucleotides at 3'end of *leuO*	This study
pLeuO1-214	pFM*TrcleuO* derived containing a deletion of three hundred nucleotides at 3'end of *leuO*	This study
pLeuOL27A	pFM*TrcleuO*-50 derived containing an alanine substitution at residue L27 of LeuO	This study
pLeuOL46A	pFM*TrcleuO*-50 derived containing an alanine substitution at residue L46 of LeuO	This study

pLeuOS54A	pFM*TrcleuO*-50 derived containing an alanine substitution at residue S54 of LeuO	This study
pLeuOL60A	pFM*TrcleuO*-50 derived containing an alanine substitution at residue L60 of LeuO	This study
pLeuOT79A	pFM*TrcleuO*-50 derived containing an alanine substitution at residue T79 of LeuO	This study
pLeuOP139A	pFM*TrcleuO*-50 derived containing an alanine substitution at residue P139 of LeuO	This study
pLeuOS310A	pFM*TrcleuO*-50 derived containing an alanine substitution at residue S310 of LeuO	This study
pLeuOV311A	pFM*TrcleuO*-50 derived containing alanine substitution at residue V311 of LeuO	This study
pLeuOC312A	pFM*TrcleuO*-50 derived containing an alanine substitution at residue C312 of LeuO	This study
pLeuOK313A	pFM*TrcleuO*-50 derived containing an alanine substitution at residue K313 of LeuO	This study
pLeuOR314A	pFM*TrcleuO*-50 derived containing an alanine substitution at residue R314 of LeuO	This study
pMPM-T6Ω	pBR322 derived, p15A ori, tetracycline resistance, AraC represor/activator, Ω interposon	
pMPMLeuO-His	pMPM-T6Ω derived plasmid containing full-length *leuO* gene with a Hisx6 tag under pBAD promoter.	This study
pMPMLeuO1-299	pMPM-T6Ω derived plasmid containing a deletion of fifteen nucleotides at the 3' end of *leuO* with Hisx6 tag	This study
pMPMLeuO1-284	pMPM-T6Ω derived plasmid containing a deletion of ninety nucleotides of 3' end of *leuO* with a Hisx6 tag	This study
pMPMLeuOS54A	pMPM-T6Ω derived plasmid containing alanine substitution at residue S54 of LeuO with a Hisx6 tag	This study
pMPMLeuOT79A	pMPM-T6Ω derived plasmid containing alanine substitution at residue T79 of LeuO with a Hisx6 tag	This study
pMPMLeuOP139A	pMPM-T6Ω derived plasmid containing alanine substitution at residue P139 of LeuO with a Hisx6 tag	This study
pKK232-9 *ompS1*	pKK232-9 derived containing 706-bp upstream and 60-bp downstream of the *ompS1* ATG start codon	(21)
pKK232-9 *tpx*	pKK232-9 derived containing 405-bp upstream and 82-bp downstream of the *tpx* ATG start codon	(21)
pRO310	pMC1871-derived plasmid, containing a translational fusion of *ompS1* to the *lacZ* reporter gene.	(42)
PTEPLer1	pMPM-T3 derived expressing *ler* fragment from the *lac* promoter	(4)

Table S2. Oligonucleotides used in this study.

Primer	Sequence (5'-3')	Reference
LeuO-5CH3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTGGTGGACTAATAAATCTTCCATCCATT	This study
LeuO-10CH3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTG GTGCATCCATTGATGCCCTTTATC	This study
LeuO-15CH3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTG GTG TTTATCACGCCCAGCCGCTT	This study
LeuO-20CH3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTGGTGCGCTTCATGCCAGGAAAGGT	This study
LeuO-30CH3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTG GTGGCTATTCAGTTTTAAAGGCAAC	This study
LeuO-100CH3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTGGTGAACAACCGCATGTTGTTCATTAT	This study
LeuOL27A5'	GATTGAACCTAGCCACCGTGGTTCG	This study
LeuOL27A3'	CGAACACGGTGGCTAGGTTCAAATC	This study
LeuOL44A5'	CGCCCACACGGCCGGAATGTCGC	This study
LeuOL44A3'	GCGACATTCCGGCCGTGTGGGCG	This study
LeuOS54A5'	GCCTGCGGTCGCCAACGCCGTAG-	This study
LeuOS54A3'	CTACGGCGTTGGCGACCGCAGGC	This study
LeuOL60A5'	CGTAGCGCGTGCCAAGGTTATG	This study
LeuOL60A3'	CATAACCTTGGCACGCGCTACG	This study
LeuOT79A5'	GAATTCAGCCGGCCGCCCGTGC	This study
LeuOT79A3'	GCACGGGCGGCCGGCTGAATTC	This study
LeuOP139A5'	GAAAAAATTGCGGCCAATATTCATGTCG	This study
LeuOP139A3'	CGACATGAATATTGGCCGCAATTTTTTC	This study
LeuOS310A3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTGGTGTCGCTTACAAACGGCGACTAATA	This study
LeuOV311A3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTGGTGTCGCTTACAGGCAGAGACTAATA	This study
LeuOC312A3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTGGTGTCGCTTGGCAACAGAGACTAATA	This study
LeuOK313A3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTGGTGTCGGGCACAAACAGAGACTAATA	This study
LeuOR314A3'	TCATTAGGATCCTTAGTGGTGGTGGTGGTGGTGGGCCTTACAAACAGAGACTAATA	This study
LeuO-F*Bgl*	GGGAAAGATCTGCATGGCAGAGGTCAAA	This study
LeuO-R*Kpn*	AAAGGTACCTTAGTGGTGGTGGTGGTG	This study
Ler-*Kpn*	GCTCAGGTACCGTTATCATTA	Bustamante,V. Unpublished
Ler-15F	ATATTAAAGCGGGATCCGGAGATTATTTATTATG	Bustamante,V. Unpublished
*Trc99A*CG3'	CCAAAACAGGCAAGCTTGC	This study
*Trc99A*CG5'	CTGGCAAATATTCTGAAATG	This study
310b-1	TAGCCTTTTATCATTTATTTTATC	(15)
310-(+1)	CTACAAATTGATACTATTCTATG	(8)