

Table S2. Strains, plasmids and primers used in this study

Strain(s) or Plasmid	Genotype or phenotype	Source or Reference
<i>E. coli</i> strains		Lab stock
<i>E. coli</i> K12 MG1655 Wild type		Lab stock
DH5 α	<i>endA hsdR17 supE44 thi-1 recA1 gyrA relA1 D (lacZYA-argF) U169 deoR</i> (ϕ 80 <i>dlacD (lacZ)</i> M15)	Invitrogen
<i>P. aeruginosa</i> strains		
PAO1 Wild type		Lab stock
Other strains		
<i>Klebsiella pneumonia</i> ATCC13883		Prof. Chen Sheng 's Laboratory
<i>Vibrio parahaemolyticus</i> vp001		Prof. Chen Sheng 's Laboratory
<i>Acinetobacter</i> ATCC25922		Prof. Chen Sheng 's Laboratory
<i>Salmonella typhimurium</i> PY1		Prof. Chen Sheng 's Laboratory
<i>Staphylococcus aureus</i>		Prof. Chen Sheng 's Laboratory
<i>Enterococcus faecalis</i> (ATCC 29212)		Prof. Chen Sheng 's Laboratory
<i>Bacillus cereus</i>		Prof. Chen Sheng 's Laboratory
<i>P. syringae</i>		Lab stock

Plasmids		Lab stock
pMS402	Expression reporter plasmid carrying the promoterless <i>luxCDABE</i> ; Kan ^r ,Tmp ^r	(2)
pKD- <i>hemL</i> -ORF-WT- <i>lux</i>	pMS402 containing <i>hemL</i> promoter region and ORF, Kan ^r ,Tmp ^r	This study
pKD- <i>hemL</i> -ORF- Δ rG4- <i>lux</i>	pMS402 containing <i>hemL</i> promoter region and ORF with mutated rG4 sites, Kan ^r ,Tmp ^r	This study
pKD- <i>bswR</i> -ORF-WT- <i>lux</i>	pMS402 containing <i>bswR</i> promoter region and ORF, Kan ^r ,Tmp ^r	This study
pKD- <i>bswR</i> -ORF- Δ rG4- <i>lux</i>	pMS402 containing <i>bswR</i> promoter region and ORF with mutated rG4 sites, Kan ^r ,Tmp ^r	This study
pAK1900	<i>E. coli</i> / <i>P. aeruginosa</i> shuttle cloning vector, Amp ^r , Cb ^r	(3)
pAK1900- <i>bswR</i> -WT	over-expressed <i>bswR</i> vector, Amp ^r , Cb ^r	This study
pAK1900- <i>bswR</i> - Δ rG4	over-expressed <i>bswR</i> vector with mutated <i>rG4 sites</i> , Amp ^r , Cb ^r	This study
pAK1900- <i>bswR</i> -FLAG	over-expressed <i>bswR</i> FLAG vector, Amp ^r , Cb ^r	This study
pAK1900- <i>bswR</i> - Δ rG4-FLAG	over-expressed <i>bswR</i> FLAG vector with mutated <i>rG4 sites</i> , Amp ^r , Cb ^r	This study
pAK1900- <i>hemL</i> - FLAG	over-expressed <i>hemL</i> FLAG vector, Amp ^r , Cb ^r	This study
pAK1900- <i>hemL</i> - Δ rG4-FLAG	over-expressed <i>hemL</i> FLAG vector with mutated <i>rG4 sites</i> , Amp ^r , Cb ^r	This study
Primer name	Purpose	Sequence (5'-3')
PKD- <i>hemL</i> P+ORF -F1	For constructing the pKD- <i>hemL</i> -ORF- <i>lux</i>	TCGTCTTCACCTCGAGGGGATCC TCGCGCTCAAGAAGTTGG
<i>hemL</i> - mut -R1	For constructing pKD- <i>hemL</i> -ORF- Δ rG4- <i>lux</i>	TACCGAAAGCGTACCIGCfTGATAGACiGGACCCGTCGGGGCCA

<i>hemL</i> - mut -F2	For constructing pKD- <i>hemL</i> -ORF- Δ rG4- <i>lux</i>	TGGCCCCGACGGGTCCaGTCTATCAaGCaGGTACGCTTTCCGGTA
PKD- <i>hemL</i> P+ORF -R2	For constructing the pKD- <i>hemL</i> -ORF- <i>lux</i>	GCGGCCGCAACTAGAggatcc CAACTTCGCAAACACCCG
<i>bswR</i> –P+ORF-F1 (<i>XhoI</i>)	For constructing the pKD- <i>bswR</i> -ORF- <i>lux</i>	TTctegagGGAATGACCTCTGCGTGA
<i>bswR</i> – mut-R1	For constructing pKD- <i>bswR</i> -ORF- Δ rG4- <i>lux</i>	AGGTAGGCCATGGGACTTGGAGGACCATGGCTAGCTGTTCCGGAAGTC
<i>bswR</i> –mut-F2	For constructing pKD- <i>bswR</i> -ORF- Δ rG4- <i>lux</i>	GACTTCCGAACAGCTAGCCATGGTCTCCAAGTCCCATGGCCTACCT
<i>bswR</i> –P+ORF -R2 (<i>BamHI</i>)	For constructing the pKD- <i>bswR</i> -ORF- <i>lux</i>	TTg gatccCAGTTCACTCCTTGTGCG
pAK1900- <i>bswR</i> -F	For overexpressing <i>bswR</i>	AACTATAGAATACTCAAGCTT AACGGGACGGGAGTTGTA
pAK1900- <i>bswR</i> -R	For overexpressing <i>bswR</i>	GAGCTCGGTACCCGGGGATCC TCACAGTTCACTCCTTGT
pAK1900- <i>bswR</i> -F (<i>HindIII</i>)	For overexpressing BswR-FLAG	AACTATAGAATACTCAAGCTT AACGGGACGGGAGTTGTA
pAK1900- <i>bswR</i> -R(FLAG) (<i>BamHI</i>)	For overexpressing BswR-FLAG	GAGCTCGGTACCCGGGGATCCTTA CTT ATC GTC GTC ATC CTT GTA ATCCAGTTCACTCCTTGTGCG
pAK1900- <i>bswR</i> -R (to 3'UTR) (<i>BamHI</i>)	Insertion of HemL-rG4 to 3' UTR	GAGCTCGGTACCCGGGGATCC GGCCATGGGACCTGGAGGACCATGGCCAGCTGTTCGGA TTACTTATCGTCGTCATCCTT
BswR-RT-F	For RT-qPCR	CCTACCTCTATTGCCCCGAG
BswR-RT-R	For RT-qPCR	CTGGCGGCTGGTTGATCC
pAK1900- <i>hemL</i> -F (<i>HindIII</i>)	For overexpressing HemL-FLAG	AACTATAGAATACTCAAGCTT TCTACGAATCAGGAACCC
pAK1900- <i>hemL</i> -R (FLAG) (<i>BamHI</i>)	For overexpressing HemL-FLAG	GAGCTCGGTACCCGGGGATCCTTA CTT ATC GTC GTC ATC CTT GTA ATC CAACTTCGCAAACACCCG

pAK1900- <i>hemL</i> -R(to3'UTR) (<i>Bam</i> HI)	Insertion of BswR-rG4 to 3' UTR	GAGCTCGGTACCCGGGGATCC CGTACCCGCCTGATAGACCGGACCCGTCTGGGGCCAGCGCATCTTACTTATCGTCGTCATCCTT
HemL-RT-F	For RT-qPCR	CCTGTCTGAATGAAGTCGCG
HemL-RT-R	For RT-qPCR	GGAATCCGGCTTCTTCTGC
HemLcodon-mut1-F	For codon mutation	CTTACAGCGCAGCaCGCGAGCTGATC
Hemcodon-mut1-R	For codon mutation	GATCAGCTCGCGtGCTGCGCTGTAAAG
HemLcodon-mut2-F	For codon mutation	GAAGTGAAAATGGCaCAACTGGTGACCG
Hemcodon-mut2-R	For codon mutation	CGGTCACCAGTTGtGCCATTTCACTTC
HemLcodon-mut3-F	For codon mutation	TCCGGCACTGAAGCaACCATGAGCGCC
Hemcodon-mut3-R	For codon mutation	GGCGCTCATGGTtGCTTCAGTGCCGGA
HemLcodon-mut4-F	For codon mutation	GGTTCCTGGGGGCCaATGGTGCTGGGC
Hemcodon-mut4-R	For codon mutation	GCCCAGCACCATtGGCCCCAGGAACC
HemLcodon-mut5-F	For codon mutation	TTTGAGCAATACCCaCAAGAGATTGCC
Hemcodon-mut5-R	For codon mutation	GGCAATCTCTTGtGGGTATTGCTCAAA
HemLcodon-mut6-F	For codon mutation	AACTGTGTTCCaCCaCTGCCAGAGTTC
Hemcodon-mut6-R	For codon mutation	GAACTCTGGCAGtGGtGGAACACAGTT
HemLcodon-mut7-F	For codon mutation	CTCACGTTAGGCCAaCCAAACTCGCCG

Hemcodon-mut7-R	For codon mutation	CGGCGAGTTTGGtTGGCCTAACGTGAG
HemLcodon-mut8-F	For codon mutation	CTAGCTGGCGCACaGATTATTACGGC
HemLcodon-mut8-R	For codon mutation	GCCGTAATAATCtTGTGCGCCAGCTAG
HemLcodon-mut9-F	For codon mutation	AATGAAGTCGCGCAaCCGGGCGTTCAC
HemLcodon-mut9-R	For codon mutation	GTGAACGCCCGGtTGC GCGACTTCATT
bswRcodon-mut1-F	For codon mutation	GCGGGATACTCGCAaAAACAGTTGGGC
bswRcodon-mut1-R	For codon mutation	GCCCAACTGTTTtTGC GAGTATCCCGC
bswRcodon-mut2-F	For codon mutation	TACTCGCAGAAACAaTTGGGCATGCTG
bswRcodon-mut2-R	For codon mutation	CAGCATGCCCAAfTGTTC TGC GAGTA
bswRcodon-mut3-F	For codon mutation	CAGTTGGGCATGCTaGTGGGAATGGAC
bswRcodon-mut3-R	For codon mutation	GTCCATTCCCACtAGCATGCCCAACTG
bswRcodon-mut4-F	For codon mutation	CCCGAGGACGAGCTaGCCGAGCTCATC
bswRcodon-mut4-R	For codon mutation	GATGAGCTCGGCtAGCTCGTCCTCGGG
HemL-20-WT-rG4 5' UTR synthetic nucleotide fragment	Insertion of rG4 sequence to 5' UTR at -20 from ATG	CGAATCAGTTGTCTGCGTCGCAGGCGCGGCCTGCGGTGTTTCTAAAGAGGGAGTATCAGTTTTC ATCCAATGATCACTTATTGGTCATACAAATAAGATGACGGCATTTTACTCGCACGTTCCATGAAAATC CTTTGCAAAGCGTAATGTTTCAAATGCACAAAAC TTTATACTCTAAGAAATCAGGATTGCACCAGT ACAAGCAGCCTGATGTTTGACGAGTATTTAACTTGTATGAATAACATAGAATAGCAGCCATTCACT TTTTGATGCGCTGGCCCCGACGGGTCCGGTCTATCAGGCGGGTACGCTTCTACGAATCAGGAACCC

		TCC
HemL-20-WT-rG4 5' UTR synthetic nucleotide fragment	Insertion of rG4 sequence to 5' UTR at -20 from ATG	CGAATCAGTTGTCTGCGTCGCAGGCGCGGCCTGCGGTGTTTCTAAAGAGGGAGTATCAGTTTTC ATCCAATGATCACTTATTGGTCATACAAATAAGATGACGGCATTCTACTCGCACGTTCCATGAAAATC CTTTGCAAAGCGTAATGTTTCAAATGCACAAAACCTTTTATACTCTAAGAAATCAGGATTGCACCAGT ACAAGCAGCCTGATGTTTGACGAGTATTTAACTTGTTATGAATAACATAGAATAGCAGCCATTCACT TTTTGATGCGCTGGCCCCGACGGGTCCaGTCTATCaGCaGGTACGCTTCTACGAATCAGGAACCCT CC
BswR-20-WT-rG4 5' UTR synthetic nucleotide fragment	Insertion of rG4 sequence to 5' UTR at -20 from ATG	CCAGGCGACGAAACGGCGTCCGCCTTATGCAATTCGCATATACTCCGGCTCGCCGCGAGAAAACC GGAGCATGCGCGATCTCGGCGACATCGACGCATATCCCCGCCGACGCTCGTACACGGCGTCGAAA CCGCGCGCCGCCCGGACGACAGAGCCTCCGGCACGGCGAAAACCTAAGGATTCTGAGCTTCCAT CTTGTCAGATTTGCCAACCTTGAGCGAGCGGGCCAGACTTCCGAACAGCTGGCCATGGTCTCTCC AGGTCCCATGGCCTAACGGGACGGGAGTTGTATGG
BswR-20-WT-rG4 5' UTR synthetic nucleotide fragment	Insertion of rG4 sequence to 5' UTR at -20 from ATG	CCCAGGCGACGAAACGGCGTCCGCCTTATGCAATTCGCATATACTCCGGCTCGCCGCGAGAAAAC CGGAGCATGCGCGATCTCGGCGACATCGACGCATATCCCCGCCGACGCTCGTACACGGCGTCGAA ACCGCGCGCCGCCCGGACGACAGAGCCTCCGGCACGGCGAAAACCTAAGGATTCTGAGCTTCCA TCTTGTCAGATTTGCCAACCTTGAGCGAGCGGGCCAGACTTCCGAACAGCTaGCCATGGTCTCTC CaGTCCCCATGGCCTAACGGGACGGGAGTTGTATGG