TABLE S1. Strains and plasmids used in this study

Strain or plasmid	Characteristics	References
Strains		
E.coli JM110	*Dam*, *dcm*, *sup*E44, *hsdR*17, *thi*, *leu*, *rpsL*1, *lacY*, *galK*, *galT*, *ara*, *tonA*, *thr*, *tsx*, (*lac-proAB*) (F', *traD36*, *proAB*, *lacI*^{q} Z M15)	22
E.coli SCS110	*RpsL*(str^{r}), *thr*, *leu*, *endA*, *thi*-1, *lacY*, *galK*, *galT*, *ara*, *tonA*, *tsx*, *dam*, *dcm*, *supE44*, (*lac-proAB*) (F' *traD36 proAB lacI* ^{q} Z M15)	22
BT185	*B. thuringiensis* strain containing *cry8Ea1* and *cry8Fa1* gene	21, 29
HD-73	*B. thuringiensis* subsp. *kurstaki* strain containing *cry1Ac* gene	(12)
HD⊿sigE	*B. thuringiensis* HD-73 Mutant type, ⊿*sigE*	24
HD⊿sigH	*B. thuringiensis* HD-73 Mutant type, ⊿*sigH*	This study
HD⊿sigK	*B. thuringiensis* HD-73 Mutant type, ⊿*sigK*	(13)
HD(P_{orf1}-LacZ)	HD-73 strain containing plasmid pHTPorf1	This study
HD (P_{cry8E}-LacZ)	HD-73 strain containing plasmid pHTPcry8E	This study
HD($P_{orf1\text{-}cry8E}$-LacZ)	HD-73 strain containing plasmid pHTPorf1-cry8E	This study
HD△sigE (P_{orf1}-LacZ)	*sigE* mutant containing plasmid pHTPorf1	This study
HD△sigK (P_{orf1}-LacZ)	*sigE* mutant containing plasmid pHTPorf1	This study
HD△sigH(P_{cry8E}-LacZ)	*sigH* mutant containing plasmid pHTPcry8E	This study
Plasmids		
pMAD	*B. thuringiensis-E. coli* shuttle, temperature-sensitive plasmid, Amp^{r}, Ery^{r}	4
pMADΔsigE	pMAD carrying partial *sigE* flank gene	24
pMADΔsigH	pMAD carrying partial *sigH* flank gene	This study
pHT304-18Z	Promoterless lacZ Vector, Eryr, Ampr	2
pHTPorf1	Amp^{r}, Erm^{r}, pHT304-18Z carrying *Porf1*	This study
pHTPcry8E	Amp^{r}, Erm^{r}, pHT304-18Z carrying *P8E*	This study
pHTPorf1-8E	Amp^{r}, Erm^{r}, pHT304-18Z carrying *cry8E* operon promoter	This study

TABLE S2. Sequences of oligonucleotide primers used in this study

Primer	**Sequence 5'-3'**
sigE1	CGCGGATCCGTGTATACAGCATTTGGGTTTA *Bam*HⅠ
sigE2'	GAAATGTATGACTGTGGTCTTAATTCCTAATTTCAG
sigE3'	CTGAAATTAGGAATTAAGACCACAGTCATACATTTC
sigE4	ACGCGTCGACCCATAACAAAGATAGGATCTC-3' *Sal*Ⅰ
sigH1F	CGGGATCCGAAGGTGCTGCCAAAGGACA
sigH1R	TTGTTACTTGATCCCTCCGACCG
sigH2F	GGATCAAGTAACAAGAGCTACAGGTGTAAAAAAT
sigH2R	ACGCGTCGACTAATCTGCGAATGGTCCCTCA
YZsigH5	TTTGAAGCGCTGATTGGCTATC
YZsigH3	GAAGTCAAGTTCAACTGGAGTCTCG
RTorf1-5	GCTCCATTGATTCGATAGGAGGTG
RTorf1-3	CAACTTTATCACGACATCACGTACT
RT8E5	ATGAGTCCAAATAATCAAAATGAATATG
RT8E3	CACAATCGGTCCTACCAATGGAACTC
RTCOorf1	AGTACGTGATGTCGTGATAAAGTTG
RTCO8E	TAATGCATTTGTTGGATCACTCG
16SrDNA5	ATCTTCCGCAATGGACGAAAGTC
16SrDNA5	GGTCTTGCAGCTCTTTGTACCGT
Porf1-5	AA**CTGCAG**AATGCACCTCCAATTGTTAATTATGT *Pst* I
Porf1-3	CG**GGATCC**TTTTTTCTGTGCACCTCCTATCG *Bam*H I
Pcry8E5	AA**CTGCAG**TTTCAATAGAAACAAAAACGTTCT *Pst* I
Pcry8E3	CG**GGATCC**CTATTTTCCTCCTATACATACACAAGAT *Bam*H I
8ERace	CACAATCGGTCCTACCAATGGAACTCC
NestRace	GGTCCTACCAATGGAACTCCTAATTTTCCT