

Supplemental Table 1. *E. coli*, *Anabaena* strains and plasmids used in this study

Strains/Plasmids	Description	Source/Reference
<i>E. coli</i> strains		
JM109	<i>endA1 glnV44 thi-1 relA1 gyrA96 recA1 mcrB⁺ Δ (lac-proAB) e14- [F' traD36 proAB⁺ lacI^q lacZΔM15] hsdR17 (r_K⁻m_K⁺)</i>	Lab collection
BL21 (DE3) pLysS	F ⁻ <i>ompT gal dcm lon hsdS_B(r_B⁻ m_B⁻) λ(DE3) pLysS(cm^R)</i>	Novagen
HB 101	F ⁻ <i>mcrB mrr hsdS20 (r_B⁻ m_B⁻) recA13 leuB6 ara-14 proA2 lacY1 galK2 xyl-5 mtl-1 rpsL20 (Sm^R) glnV44 λ</i>	Lab collection
HB101R2	Donor strain carrying pRL623(encoding methylase) and pRL443 (conjugal plasmid)	Lab collection
<i>Anabaena</i> strains		
<i>Anabaena</i> PCC 7120	Wild-type strain	Lab collection
<i>AnKatB⁺</i>	<i>Anabaena</i> PCC 7120 harbouring pAMKatB	This study
<i>An3090Prom</i>	<i>Anabaena</i> PCC 7120 harbouring pAM3090Prom	This study
<i>AnKatB⁻</i>	Insertional inactivation of <i>katB</i> in <i>Anabaena</i> PCC 7120	This study
Plasmids		
pET16b	amp ^R , expression vector	Novagen
pAM1956	kan ^R , promoterless vector with <i>gfpmut2</i> reporter gene	Lab collection
pFPN	amp ^R , kan ^R , integrative expression vector	Chaurasia et al. (2008)
pRL271	cm ^R , kan ^R suicide vector for <i>Anabaena</i>	Lab collection
pRL3090Kan	Internal 300 bp <i>katB</i> sequence along with <i>nptII</i> expression cassette (1.2 kb) cloned into <i>SacI</i> and <i>KpnI</i> sites of pRL271	This study
pETKatB	0.693 kb <i>alr3090</i> PCR product cloned into <i>NdeI</i> and <i>BamHI</i> sites of pET16b	This study
pFPNKatB	0.693 kb <i>alr3090</i> fragment cloned in pFPN at <i>NdeI</i> - <i>BamHI</i> restriction sites	This study
pAMKatB	1.3 kb <i>SmaI</i> - <i>SalI</i> fragment from pFPNKatB cloned in pAM1956 vector	This study
pAM3090Prom	300 bp <i>KpnI</i> - <i>SacI</i> fragment containing the <i>katB</i> promoter	This study

Supplemental Table 2. Primers used in this study

Name	Sequence	Restriction site
KatB_Nco_Fwd	GGACCATGGTTTTTCACAAGAAAGAACCGATTC	<i>NcoI</i>
KatB_His_Rev	GGGGATCCTCCAGTTAGTGATGGTGATGGTGATG GGAATGTTTTTCTAGTGGGTTAG	<i>BamHI</i>
KatB_NdeI_Fwd	GGACATATGTTTTTTCACAAGAAAGAACCG	<i>NdeI</i>
KatB_BamHI_Rev	GGGGATCCTTAGGAATGTTTTTCTAGTGGGT	<i>BamHI</i>
KatB_prom_Fwd	GCGAGCTCAAAGCTGCCTTGGGGGAATTAGG	<i>SacI</i>
KatB_prom_Rev	GGGGTACCCTCAAAAATTAACCTCGCATCTG	<i>KpnI</i>
pAM1956Kan_Rev	CCGCTCGAGTCCCGCTCAGAAGAACTCGTCAAG AAG	<i>XhoI</i>
Kan_3090_Olap_Rev	CTTGCGCCCTGAGTGCTGAGGAGATGAACTAGAG	-
3090_Kan_Olap_Fwd	AAACTCTAGTTCATCTCCTCAGCACTCAGGGCGC AAGGGCTGCTAAAG	-
3090_sacI_Fwd	GCC GAGCTCAAAAACGTGG ATCAAACAGAGG	<i>SacI</i>
RACE_KatB_Ext	AACGAGGGTTTGCTTCACCG	-
RACE_KatB_Int	CGTGAATCGGTTCTTCTTG	-