Supplementary Information

Carboxyethylarginine synthase genes show complex cross regulation in *Streptomyces clavuligerus*

Thomas Kwong[a], Kapil Tahlan[b], Cecilia L. Anders and Susan E. Jensen[#]

Department of Biological Sciences, University of Alberta, Edmonton, Alberta T6G 2E9 Canada

[a]Current address: Department of Chemistry, The Scripps Research Institute Florida, 130 Scripps Way, Jupiter, FL 33458

[b]Current address: Department of Biology, Memorial University of Newfoundland, St. John's, NL, Canada A1B 3X9

[#]For correspondence. E-mail susan.jensen@ualberta.ca

Table S1. Oligonucleotide primers used in this study.

Primer	Sequence (5'-3')	Use
ceaS2-Redirect For	ACGGAGCCTGGTACTGACGGAGTCTGGAGACCGCT CATGATTCCGGGGATCCGTCGACC	Forward primer for *ceaS2* REDIRECT mutagenesis
ceaS2-Redirect Rev	ACCCGAAGGCAGCCGGAAGAACCGGTGCCCCATGA TCATGTAGGCTGGAGCTGCTTC	Reverse primer for *ceaS2* REDIRECT mutagenesis
Mutate ceaS2-For	CAGCGGCCCGTTCCCACCCCTTG	Forward primer to amplify E57W-*ceaS2* fragment
Mutate ceaS2-Rev	ACCCGCGGTGAAC***CA***GTGGCGGGTCAGAACGAAG TC	Reverse primer to amplify E57W-*ceaS2* fragment; SacII site is underlined; mutagenic bases shown in bold italics
ceaS1-exp For	TATTAATCATATGGCCACCACGACCGCGAAAG	Forward primer for ceaS1 expression
ceaS1-exp-Rev	ATTAATGGATCCGGGGCCGGGCATGGTGAACTC	Reverse primer for ceaS1 expression
ceaS2-RT-for	AGGCCGCGTCGATTCTCTTC	Forward primer for *ceaS2* RT-PCR
ceaS2-RT-rev	CGGCGGGTTGGGGACGGT	Reverse primer for *ceaS2* RT-PCR
bls1 forward	TCCTGAACGGACGGTTCGC	Forward primer for *bls*1 RT-PCR
bls1 reverse	AGGGCAGTTCCCTGACGAGTT	Reverse primer for *bls*1 RT-PCR

CAN169	CGGCTGCTGGAACGCTATGACCT	Forward primer for *bls*2 RT-PCR
CAN170	CCGCCGGAGAGCACCACCAA	Reverse primer for *bls*2 RT-PCR
hrdB RT-forward	ATTCCGCCAACCCAGTGGAAGAATG	Forward primer for *hrdB* RT-PCR
hrdB RT-reverse	TCCTTCTTGGACGCGGTCTTCTTG	Reverse primer for *hrdB* RT-PCR