Electronic Supplementary Material

Development of β-lactamase as a tool for monitoring conditional gene expression by a tetracycline-riboswitch in *Methanosarcina acetivorans*

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Supplementary Table S1: Primers used in this study

No.	Name	Sequence (5'→ 3')	Use
1	oblaN/5'	ccatggcatatgCACCCAGAAACGCTGGTGAAAG	Amplification of *bla* without signal peptide sequence
2	oblaNFSP	ccatggcatATGTGGAACACATTTTCAAAAGAT GAAAAAGGATTCACTGGACACCCAGAAA-CGCTGGTGAAAG	Amplification of *bla* with signal peptide sequence from MA3061
3	obla/3'	ctgcaggcggccgcTTACCAATGCTTAATCAGTGA GGC	Amplification of *bla*
4	oP0145/5'	ccatggagatctGGCTACAGCCTGAATG	Amplification of ca. 1kb promoter region preceding MA0145
5	oP0145/3'	ccatggcataTgTTTCCCGGTTTTTCGG	Amplification of ca. 1kb promoter region preceding MA0145
6	pBlaN_fwd	CAAGCTTTGCTTTCGTATCC	Construction of tc-RS variants
7	pBlaN_rev	TGTTGAGATCCAGTTCGATG	Construction of tc-RS variants
8	tc1_prom_rev	CTTTCATCTGGTATGTTTTAGGTTATTTATT AAAATCATTTTGGGAC	Construction of tc-RS1

9	prom_tc1_fwd	GTCCCAAAATGATTTTAATAAATAACCTAAAACATACCAGATGAAAG	Construction of tc-RS1
10	tc1_RBS_rev	CGACGTCATATGAATTTCCTCCTTAACCTAGGTGGTCGTATTCTTC	Construction of tc-RS1
11	tc11_fwd	CAGTCCCAAAATGATTTTAATAAATTAACCTAAAACATACCAGATG	Construction of tc-RS2
12	tc11_rev	CATCTGGTATGTTTTAGGTTAATTTATTAAAATCATTTTGGGACTG	Construction of tc-RS2
13	tc2_prom_rev	CTTTCATCTGGTATGTTTTAGGAAATTTATTAAAATCATTTTGGGAC	Construction of tc-RS3
14	prom_tc2_fwd	GTCCCAAAATGATTTTAATAAATTTCCTAAAACATACCAGATGAAAG	Construction of tc-RS3
15	tc2_RBS_rev	CGACGTCATATGAATTTCCTCCTTCCTAGGTGGTCGTATTCTTC	Construction of tc-RS3
16	tc6_fwd	CAGATGAAAGTCTGGAGAGGTGAAGAATACGACCACCTAGAAGGAG	Construction of tc-RS4
17	tc6_rev	CCTCTCCAGACTTTCATCTGGTATGTTTTAGAAAGTTTATTAAAATC	Construction of tc-RS4
18	prom_tc5_fwd	GTCCCAAAATGATTTTAATAAACTTTCCTAAAACATACCAGATG	Construction of tc-RS4a
19	tc5_prom_rev	CATCTGGTATGTTTTAGGAAAGTTTATTAAAATCATTTTGGGAC	Construction of tc-RS4a
20	tc9_fwd	CATACCAGATGAAAGTCTGGAGAGGTGAAGAATACGACCACCTAAGAAGGAG	Construction of tc-RS4b
21	tc9_rev	CTCTCCAGACTTTCATCTGGTATGTTTTAAGAAAGTTTATTAAAATC	Construction of tc-RS4b
22	tc3_prom_rev	GACTTTCATCTGGTATGTTTTAAGGAGTTTATTAAAATCATTTTGGGACTG	Construction of tc-RS5
23	prom_tc3_fwd	CAGTCCCAAAATGATTTTAATAAACTCCTTAAAACATACCAGATGAAAGTC	Construction of tc-RS5
24	tc3_RBS_rev	CGACGTCATATGAATTTCCTCCTTAGGTGGTCGTATTCTTCAC	Construction of tc-RS5