

Table S10. Oligonucleotides and DNA fragments used in this study. The list of DNA and RNA oligonucleotides for dRNA-seq library preparation, qRT-PCR, and 5' RACE analysis. RED: Illumina Tru-seq Index; Index 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 19, 22, and 27 were used in this study.

Methods	name	Length (nt)	Sequence	Used strain	Target gene	Function
dRNA-seq	5' RNA adaptor	33	ACACUCUUUCCCUACACGACGCUCUU CCGAUCU	<i>A. bakii</i>	N/A	N/A
	Solexa_Mul_RT_rando m primer_N9 (3' random primer)	43	GTGACTGGAGTTCAGACGTGTGCTCTT CCGATCT N9	<i>A. bakii</i>	N/A	N/A
	Solexa_Mul_PCR_1 (5' PCR universal primer)	58	AATGATACGGCGACCACCGAGATCTAC ACTCTTTCCCTACACGACGCTCTTCCGA TCT	<i>A. bakii</i>	N/A	N/A
	Solexa_Mul_In_XX_lo ng (Index primer)	64-66	CAAGCAGAAGACGGCATACGAGATXX XXXXGTGACTGGAGTTCAGACGTGTGC TCTTCCGATCT	<i>A. bakii</i>	N/A	N/A
qRT-PCR	BA_qPCR_secA_F	20	GGATAACATGGCCCCACAA	<i>A. bakii</i>	ABAKI_c2	Protein translocase
	BA_qPCR_secA_R	20	AAGGGGTTCTGGCTTCATCG	<i>A. bakii</i>	5770	subunit SecA
	BA_qPCR_HydA_F	20	TGCTTTGCATTCTGGACGC	<i>A. bakii</i>	ABAKI_c0	Iron hydrogenase
	BA_qPCR_HydA_R	20	ATGTCCAGTGTCTGCCATCG	<i>A. bakii</i>	9070	HydA2
	BA_qPCR_acsD_F	20	TGCAACGCAGTTTTCCACTG	<i>A. bakii</i>	ABAKI_c1	Corrinoid/iron-
	BA_qPCR_acsD_R	20	CTTGGGCAAAAGCAGCAGTT	<i>A. bakii</i>	3120	sulfur protein, small subunit AcsD
	BA_qPCR_metF_F	20	GTACCGGTTCACTGGCAACT	<i>A. bakii</i>	ABAKI_c2	Methylenetetrahydr
	BA_qPCR_metF_R	20	ATCGGACTGCAGGGCAATAC	<i>A. bakii</i>	4840	ofolate reductase large subunit MetF
	BA_qPCR_lctB_F	20	ATGATTCGCGATGGGGTTGA	<i>A. bakii</i>	ABAKI_c2	Electron transfer
	BA_qPCR_lctB_R	20	CTGTAATGGTTCCGCCAGT	<i>A. bakii</i>	4310	flavoprotein beta- subunit EtfB
	BA_qPCR_pyc_F	20	ACCAACTCGGTGACCGTATG	<i>A. bakii</i>	ABAKI_c0	Pyruvate
	BA_qPCR_pyc_R	20	ACGCCGGTACCATTGAGTTT	<i>A. bakii</i>	7540	carboxylase
	WO_qPCR_secA_F	20	GGAGCTTGACAGCCGTTTTG	<i>A. woodii</i>	Awo_c280	Protein translocase
	WO_qPCR_secA_R	20	CAAGGGTTTCTCCTTGCGCT	<i>A. woodii</i>	60	subunit SecA
	WO_qPCR_HydA_F	20	AATGTGCCGAAGTGTGTCCA	<i>A. woodii</i>	Awo_c082	Iron hydrogenase
	WO_qPCR_HydA_R	20	ATTTCTGTACGCATTGGCCG	<i>A. woodii</i>	60	
	WO_qPCR_acsD_F	20	TTGGGCAGAGTGCTTTGGAA	<i>A. woodii</i>	Awo_c107	Corrinoid/iron-
	WO_qPCR_acsD_R	21	ACAGCAAGAAATCAGCACCTG	<i>A. woodii</i>	10	sulfur protein, small subunit AcsD

	WO_qPCR_metF_F	20	TGCGTACTGGTTCATTGGCA	<i>A. woodii</i>	Awo_c093	Methylenetetrahydr
	WO_qPCR_metF_R	21	GGCAATACGATTTTCGATCCCG	<i>A. woodii</i>	10	ofolate reductase large subunit MetF
	WO_qPCR_letB_F	20	AGAACAATTAGGCGGGACCA	<i>A. woodii</i>	Awo_c087	Electron transfer
	WO_qPCR_letB_R	20	CCTCATCAGCGCCCATGTAA	<i>A. woodii</i>	10	flavoprotein beta- subunit EtfB
5'RACE	FW.5bt (Short RNA adapter)	15	ACGGACUAGAAGAAA	<i>A. bakii</i>	N/A	N/A
	FR.RNA5 (Second RNA adapter)	38	AUAUGCGCGAAUCCUGUAGAACGAA CACUAGAAGAAA	<i>A. bakii</i>	N/A	N/A
	FR.DNA5	20	GCGCGAATTCCTGTAGAACG	<i>A. bakii</i>	N/A	N/A
	BA_5RACE_fdhF2_R	20	TGGGGTCGCGCTAACAATTT	<i>A. bakii</i>	ABAKI_c0 9110	Formate dehydrogenase H
	BA_5RACE_acsD_R	20	TGTTTTCGCCCCCTATGCTT	<i>A. bakii</i>	ABAKI_c1 3120	Corrinoid/iron- sulfur protein, small subunit AcsD
	BA_5RACE_cooC1_R	20	CCCAGACCTTCTGCAACCAA	<i>A. bakii</i>	ABAKI_c1 3160	CO dehydrogenase nickel-insertion accessory protein CooC1
	BA_5RACE_2680710 N_R	21	TCACCACCTTCTTTCTTGCGA	<i>A. bakii</i>	N/A	N/A
	BA_5RACE_fhs1_R	23	TCTGTAAACCCAACTTAGCTGC	<i>A. bakii</i>	ABAKI_c2 4790	Formate-- tetrahydrofolate ligase
	BA_5RACE_rnfC1_R	20	TGGCACATCGGCTGTACTTT	<i>A. bakii</i>	ABAKI_c2 9390	Electron transport complex subunit C
Assays for p5'UTR-GFP reporter constructs	pHCE_EGFP-rnBT_F	34	TACCGAGCTCGAATTCCCATGGTGAGC AAGGGCGA	<i>E. coli</i>	N/A	N/A
	pHCE_EGFP-rnBT_R	38	TGAGAGTGCACCATAATTTGTCCTACTC AGGAGAGCGT	<i>E. coli</i>	N/A	N/A
	pTRC + cspA-5'UTR	229	CGACTCTAGAGGATCCTTGACAATTAAT CATCCG Gctcgataatgtgtggaattacggttgacgtac agaccattaaagcagtgtagtaaggcaagtccctcaagagtta tcgttgatacccctcgtagtcacattccttaacgcttcaaaatct gtaaagcacgccatcgcgaaaggcacaCTTAATTA TTAAAGGTAATACACTCATGGTGAGCA AGGG	<i>E. coli</i>	N/A	N/A

pTRC + cooC1-5'UTR	190	CGACTCTAGAGGATCCTTGACAATTAAT CATCCGGCtctataatgtgtggaattCGATACATA TATATACAAGTTGATAAGAAAACAAAAT TTTCCTGTTGTAAGTTCATATGTTATAAC TTAAACTGGATTATAACAAATTAATGCG AAAAAATTATTTTGGAGGAAAAAATTC ATGGTGAGCAAGGG	<i>E. coli</i>	N/A	N/A
pTRC + fhs1-5'UTR	118	CGACTCTAGAGGATCCTTGACAATTAAT CATCCGGCTCGtataatgtgtggaattAGATGTT AAAAATTTATCAAATAAATGGAGGAA ATTTTATGGGTTTTTCATGGTGAGCAAGG G	<i>E. coli</i>	N/A	N/A
pTRC + Ef-P-5'UTR	113	CGACTCTAGAGGATCCTTGACAATTAAT CATCCGGtctctataatgtgtggaattATTATACCT CCGCTATGGGTTTGTTTTCTATCTATAAA TATTTTCATGGTGAGCAAGGG	<i>E. coli</i>	N/A	N/A
qPCR_GFP_F	20	CTACCCCGACCACATGAAGC	<i>E. coli</i>	eGFP	eGFP
qPCR_GFP_R	20	CTTGTAAGTTGCCGTCGTCCT	<i>E. coli</i>		
qPCR_gyrA_F	20	ACGCGACTTGGTTGGGTATT	<i>E. coli</i>	EG10423	DNA gyrase subunit
qPCR_gyrA_R	20	GTCTCTCTGATCGTGCCTCG	<i>E. coli</i>	(EcoCyc)	A