Supplementary Table 1. Open reading frames with hybridization levels below background in both the wild type and rrp1 knockout strains

Gene number	Annotation
BB0001	hypothetical protein
BB0002	beta-N-acetylhexosaminidase, putative
BB0003	hypothetical protein
BB0004	phosphoglucomutase (femD)
BB0005	tryptophanyl-tRNA synthetase (trsA)
BB0008	conserved hypothetical protein
BB0009	hypothetical protein
BB0015	uridine kinase (udk)
BB0025	conserved hypothetical protein
BB0029	conserved hypothetical protein
BB0033	small protein (smpB)
BB0036	DNA topoisomerase IV (parE)
BB0038	hypothetical protein
BB0040	chemotaxis protein methyltransferase (cheR-1)
BB0041	conserved hypothetical protein
BB0053	uracil DNA glycosylase (ung)
BB0060	conserved hypothetical protein
BB0062	hypothetical protein
BB0063	hypothetical protein
BB0071	hypothetical protein
BB0072	hypothetical protein
BB0073	hypothetical protein
BB0076	signal recognition particle-docking protein FtsY (ftsY)
BB0077	hypothetical protein
BB0079	hypothetical protein
BB0081	conserved hypothetical protein
BB0102	hypothetical protein
BB0116	PTS system, maltose and glucose-specific IIABC component (malX)
BB0130	hypothetical protein
BB0143	conserved hypothetical protein
BB0148	hypothetical protein
BB0150	hypothetical protein
BB0168	dnaK suppressor, putative
BB0187	hypothetical protein
BB0199	hypothetical protein
BB0206	conserved hypothetical protein
BB0208	hypothetical protein
BB0223	hypothetical protein
BB0234	conserved hypothetical integral membrane protein
BB0239	deoxyguanosine/deoxyadenosine kinase(I) subunit 2 (dck)
BB0247	conserved hypothetical protein
BB0259	hypothetical protein
BB0263	signal peptidase I (lepB-3)

BB0276	flagellar biosynthesis protein (fliZ)
BB0288	flagellum-specific ATP synthase (fliI)
BB0288 BB0295	heat shock protein (hslU)
BB0293 BB0310	hypothetical protein
BB0310 BB0312	purine-binding chemotaxis protein (cheW-1)
BB0315	
	hypothetical protein
BB0318	methylgalactoside ABC transporter, ATP-binding protein (mglA)
BB0320	hypothetical protein
BB0322	hypothetical protein
BB0326	hypothetical protein
BB0331	hypothetical protein
BB0335	oligopeptide ABC transporter, ATP-binding protein (oppF)
BB0347	fibronectin/fibrinogen-binding protein, putative
BB0352	hypothetical protein
BB0353	hypothetical protein
BB0354	hypothetical protein
BB0368	glycerol-3-phosphate dehydrogenase, NAD(P)+ (gpsA)
BB0369	ATP-dependent Clp protease, subunit A (clpA)
BB0374	hypothetical protein
BB0375	5'-methylthioadenosine/S-adenosylhomocysteine nucleosidase
BB0378	hypothetical protein
BB0384	basic membrane protein C (bmpC)
BB0385	basic membrane protein D (bmpD)
BB0399	hypothetical protein
BB0400	hypothetical protein
BB0401	glutamate transporter, putative
BB0403	hypothetical protein
BB0409	hypothetical protein
BB0410	hypothetical protein
BB0411	endonuclease precursor (nucA)
BB0412	hypothetical protein
BB0413	conserved hypothetical integral membrane protein
BB0414	chemotaxis protein methyltransferase (cheR-2)
BB0417	adenylate kinase (adk)
BB0421	hydrolase
BB0428	hypothetical protein
BB0430	conserved hypothetical protein
BB0432	hypothetical protein
BB0433	hypothetical protein
BB0434	stage 0 sporulation protein J (spo0J)
BB0438	DNA polymerase III, subunit beta (dnaN)
BB0447	Na+/H+ antiporter (napA)
BB0449	conserved hypothetical protein
BB0450	RNA polymerase sigma-54 factor (ntrA)
BB0452	hypothetical protein
BB0453	conserved hypothetical protein

BB0454	lipopolysaccharide biosynthesis-related protein
BB0456	hypothetical protein
BB0459	hypothetical protein
BB0460	hypothetical protein
BB0474	hypothetical protein
BB0506	hemolysin (tlyA)
BB0507	hypothetical protein
BB0516	rRNA methylase (yacO)
BB0519	grpE protein (grpE)
BB0523	hypothetical protein
BB0524	inositol monophosphatase
BB0527	conserved hypothetical protein
BB0528	aldose reductase, putative
BB0532	hypothetical protein
BB0535	hypothetical protein
BB0546	hypothetical protein
BB0547	conserved hypothetical protein
BB0549	hypothetical protein
BB0552	DNA ligase (lig)
BB0555	hypothetical protein
BB0556	hypothetical protein
BB0564	hypothetical protein
BB0565	purine-binding chemotaxis protein (cheW-2)
BB0566	hypothetical protein
BB0574	conserved hypothetical integral membrane protein
BB0592	hypothetical protein
BB0616	conserved hypothetical integral membrane protein
BB0623	transcription-repair coupling factor (mfd)
BB0632	exodeoxyribonuclease V, alpha chain (recD)
BB0633	exodeoxyribonuclease V, beta chain (recB)
BB0634	exodeoxyribonuclease V, gamma chain (recC)
BB0639	spermidine/putrescine ABC transporter, (potD)
BB0657	ribose 5-phosphate isomerase (rpi)
BB0673	conserved hypothetical protein
BB0674	hypothetical protein
BB0684	carotenoid biosynthesis protein, putative
BB0707	hypothetical protein
BB0717	conserved hypothetical integral membrane protein
BB0721	CDP-diacylglycerol-glycerol-3-phosphate 3-phosphatidyltransferase
BB0734	conserved hypothetical protein
BB0737	histidine phosphokinase/phophatase, putative
BB0739	hypothetical protein
BB0740	conserved hypothetical protein
BB0745	endonuclease III (nth)
BB0750	hypothetical protein
BB0751	hypothetical protein

BB0753	membrane spanning protein, putative
BB0758	hypothetical protein
BB0761	conserved hypothetical protein
BB0762	hypothetical protein
BB0764	sensory transduction histidine kinase, putative
BB0768	pyridoxal kinase (pdxK)
BB0771	RNA polymerase sigma factor (rpoS)
BB0772	flagellar P-ring protein (flgI)
BB0773	hypothetical protein
BB0776	hypothetical protein
BB0790	hypothetical protein
BB0793	thymidylate kinase (tmk)
BB0797	DNA mismatch repair protein (mutS)
BB0798	competence protein F, putative
BB0803	tRNA pseudouridine 55 synthase (truB)
BB0806	hypothetical protein
BB0807	conserved hypothetical integral membrane protein
BB0808	hypothetical protein
BB0811	hypothetical protein
BB0812	pantothenate metabolism flavoprotein (dfp)
BB0813	hypothetical protein
BB0814	pantothenate permease (panF)
BB0815	conserved hypothetical protein
BB0821	2-methylthio-N6-isopentyladenosine tRNA modification (miaA)
BB0823	hypothetical protein
BB0826	hypothetical protein
BB0830	exonuclease SbcC (sbcC)
BB0835	phosphomannomutase (cpsG)
BB0836	excinuclease ABC, subunit B (uvrB)
BB0838	hypothetical protein
BB0840	hypothetical protein
BB0843.1	hypothetical protein, pseudogene
BB0845.1	hypothetical protein, pseudogene
BB0845.2	hypothetical protein, pseudogene
BB0847	hypothetical protein
BB0848	hypothetical protein
BB0848.1	hypothetical protein, pseudogene
BB0849.1	hypothetical protein, pseudogene
BB0849.2	hypothetical protein, pseudogene
BB0853	conserved hypothetical protein, authentic frameshift
BB0853.1	hypothetical protein, paralogous family 57, pseudogene
BB0853.2	hypothetical protein, pseudogene
BBA02	hypothetical protein
BBA04	antigen, S2
BBA05	antigen, S1
BBA06	hypothetical protein
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BBA08	conserved hypothetical protein
BBA09	conserved hypothetical protein
BBA10	conserved hypothetical protein
BBA14	conserved hypothetical protein
BBA17	hypothetical protein
BBA24	decorin binding protein A (dbpA

BBA24 decorin binding protein A (dbpA)
BBA25 decorin binding protein B (dbpB)

BBA26 hypothetical protein BBA27 hypothetical protein BBA28 hypothetical protein BBA29 hypothetical protein

BBA31 conserved hypothetical protein

BBA38 hypothetical protein BBA44 hypothetical protein

BBA45 conserved hypothetical protein

hypothetical protein BBA48 BBA49 hypothetical protein hypothetical protein BBA50 hypothetical protein BBA53 BBA54 hypothetical protein BBA56 hypothetical protein **BBA57** hypothetical protein hypothetical protein BBA58 BBA63 hypothetical protein BBA65 hypothetical protein BBA66 antigen, P35, putative hypothetical protein BBA71 hypothetical protein BBA72

BBB01 conserved hypothetical protein

hypothetical protein

BBB02 hypothetical protein BBB03 hypothetical protein

BBA75

BBB04 PTS system, cellobiose-specific IIC component (celB)
BBB05 PTS system, cellobiose-specific IIA component (celC)
BBB06 PTS system, cellobiose-specific IIB component (celA)

BBB07 outer surface protein, putative

BBB08 hypothetical protein BBB09 hypothetical protein

BBB11 conserved hypothetical protein BBB12 plasmid partition protein, putative BBB13 conserved hypothetical protein

BBB15 hypothetical protein BBB20 hypothetical protein BBB21 hypothetical protein BBB26 hypothetical protein

BBC01 conserved hypothetical protein

DD G04	
BBC02	conserved hypothetical protein
BBC03	conserved hypothetical protein
BBC05	conserved hypothetical protein
BBC06	exported protein A (eppA)
BBC07	hypothetical protein
BBC10	rev protein (rev)
BBD001	conserved hypothetical protein
BBD01	hypothetical protein, paralogous family 76
BBD02	hypothetical protein
BBD05.1	conserved hypothetical protein, pseudogene
BBD06	hypothetical protein
BBD12	hypothetical protein
BBD14	conserved hypothetical protein
BBD15	hypothetical protein, paralogous family 85
BBD16	hypothetical protein
BBD19	hypothetical protein
BBD20	transposase-like protein, authentic frameshift
BBD21	plasmid partition protein, putative
BBD23	transposase-like protein, authentic frameshift
BBD23 BBD24	hypothetical protein
BBD25	hypothetical protein
BBE01	hypothetical protein
BBE02	7 -
	hypothetical protein
BBE03	hypothetical protein
BBE04	hypothetical protein
BBE04.1	protein p23, pseudogene
BBE05	hypothetical protein
BBE06	hypothetical protein
BBE07	pfs protein, pseudogene
BBE08	hypothetical protein
BBE09	protein p23
BBE10	hypothetical protein
BBE11	hypothetical protein
BBE12	hypothetical protein
BBE13	hypothetical protein
BBE14	hypothetical protein
BBE15	hypothetical protein
BBE16	hypothetical protein
BBE17	hypothetical protein
BBE18	conserved hypothetical protein
BBE19	plasmid partition protein, putative
BBE20	conserved hypothetical protein
BBE21.1	transposase-related protein, pseudogene
BBE22	pyrazinamidase/nicotinamidase (pncA)
BBE23	hypothetical protein
BBE23.1	hypothetical protein, authentic frameshift

DDE45	
BBE25	hypothetical protein
BBE26	hypothetical protein
BBE28	hypothetical protein
BBE29	adenine specific DNA methyltransferase, authentic frameshift
BBE29.1	conserved hypothetical protein, pseudogene
BBE32	conserved hypothetical protein, authentic frameshift
BBF001	conserved hypothetical protein, pseudogene
BBF02	conserved hypothetical protein
BBF03	conserved hypothetical protein
BBF04	hypothetical protein
BBF05	hypothetical protein
BBF06	conserved hypothetical protein
BBF08	hypothetical protein
BBF09	hypothetical protein, paralogous family 71, authentic frameshift
BBF10	hypothetical protein
BBF11	hypothetical protein
BBF11.1	conserved hypothetical protein, pseudogene
BBF12	conserved hypothetical protein, authentic point mutation
BBF13	plasmid partition protein, putative
BBF14	conserved hypothetical protein
BBF14.1	hypothetical protein, paralogous family 65, authentic frameshift
BBF17	hypothetical protein
BBF20	conserved hypothetical protein
BBF21	hypothetical protein
BBF23	conserved hypothetical protein
BBF24	plasmid partition protein, putative
BBF25	conserved hypothetical protein
BBF26.1	conserved hypothetical protein, pseudogene
BBF27	hypothetical protein
BBF28	hypothetical protein
BBF30	hypothetical protein
BBF32	vls recombination cassettes Vls2-Vls16, authentic frameshift
BBG01	hypothetical protein
BBG02	conserved hypothetical protein
BBG03	conserved hypothetical protein, authentic frameshift
BBG07	conserved hypothetical protein
BBG08	plasmid partition protein, putative
BBG10	hypothetical protein
BBG11	hypothetical protein
BBG13	hypothetical protein
BBG14	hypothetical protein
BBG15	hypothetical protein
BBG16	hypothetical protein
BBG17	hypothetical protein
BBG21	hypothetical protein
BBG22	hypothetical protein
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BBG23	hypothetical protein
BBG25	conserved hypothetical protein
BBG26	hypothetical protein
BBG27	conserved hypothetical protein
BBG28	hypothetical protein
BBG30	hypothetical protein
BBG31	7 = -
	conserved hypothetical protein
BBG32	replicative DNA helicase, putative
BBG34	hypothetical protein
BBH01	conserved hypothetical protein
BBH02	conserved hypothetical protein
BBH03	hypothetical protein
BBH04	cdsD protein
BBH07	conserved hypothetical protein, authentic frameshift
BBH09	hypothetical protein
BBH09.1	conserved hypothetical protein, pseudogene
BBH10	hypothetical protein
BBH11	hypothetical protein
BBH11.1	conserved hypothetical protein, pseudogene
BBH12	hypothetical protein
BBH14	hypothetical protein
BBH15	hypothetical protein
BBH16	hypothetical protein
BBH17	hypothetical protein
BBH18	hypothetical protein
BBH18.1	conserved hypothetical protein, pseudogene
BBH19	hypothetical protein
BBH20.1	conserved hypothetical protein, pseudogene
BBH22	hypothetical protein
BBH24	hypothetical protein
BBH24.1	conserved hypothetical protein, pseudogene
BBH25	hypothetical protein
BBH29	conserved hypothetical protein
BBH30	conserved hypothetical protein, authentic frameshift
BBH31	hypothetical protein
BBH32	antigen, P35, putative
BBH33	hypothetical protein
BBH35	hypothetical protein
BBH36	hypothetical protein
BBH36.1	conserved hypothetical protein, pseudogene
BBH36.2	conserved hypothetical protein, pseudogene
BBH37	hypothetical protein
BBH38	hypothetical protein
BBH39	hypothetical protein
BBH40	transposase-like protein, putative
BBH41	conserved hypothetical protein
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BBI01 hypothetical protein

BBI02 conserved hypothetical protein

BBI02.1 conserved hypothetical protein, pseudogene

BBI02.2 Brute Force ORF
BBI03 hypothetical protein
BBI04 hypothetical protein
BBI05 hypothetical protein

BBI06 5'-methylthioadenosine/S-adenosylhomocysteine nucleosidase

BBI07 hypothetical protein
BBI08 hypothetical protein
BBI09 hypothetical protein
BBI10 hypothetical protein
BBI11 hypothetical protein
BBI12 hypothetical protein

BBI13 conserved hypothetical protein

BBI14 hypothetical protein
BBI15 hypothetical protein
BBI16 hypothetical protein
BBI17 hypothetical protein
BBI18 hypothetical protein

BBI20 conserved hypothetical protein BBI21 plasmid partition protein, putative BBI22 conserved hypothetical protein

BBI24 hypothetical protein BBI25 hypothetical protein

BBI26 multidrug-efflux transporter

BBI27 hypothetical protein BBI28 hypothetical protein BBI30 hypothetical protein

BBI31 conserved hypothetical protein

BBI31.1 conserved hypothetical protein, pseudogene

BBI32 hypothetical protein BBI34 hypothetical protein BBI35 hypothetical protein BBI36 antigen, P35, putative

BBI40 conserved hypothetical protein, pseudogene

BBI41 hypothetical protein

BBI42 outer membrane protein, putative BBI43 conserved hypothetical protein

BBJ001 conserved hypothetical protein, pseudogene

BBJ01 hypothetical protein

BBJ02.1 conserved hypothetical protein, pseudogene

BBJ03 hypothetical protein BBJ04 hypothetical protein BBJ06 hypothetical protein BBJ07 hypothetical protein

BBJ07.1	conserved hypothetical protein, pseudogene
BBJ11	hypothetical protein
BBJ12.1	hypothetical protein, paralogous family 124, pseudogene
BBJ13	hypothetical protein
BBJ15	hypothetical protein
BBJ15.1	conserved hypothetical protein, pseudogene
BBJ17	plasmid partition protein, putative
BBJ18	conserved hypothetical protein
BBJ20	hypothetical protein
BBJ21	• 1
BBJ21.1	hypothetical protein
	conserved hypothetical protein, pseudogene
BBJ23	hypothetical protein
BBJ25	hypothetical protein
BBJ26	ABC transporter, ATP-binding protein
BBJ27	hypothetical protein
BBJ28	hypothetical protein
BBJ29	hypothetical protein
BBJ31	hypothetical protein
BBJ32	hypothetical protein
BBJ33	hypothetical protein
BBJ35	hypothetical protein
BBJ36	hypothetical protein
BBJ37	hypothetical protein
BBJ38	hypothetical protein
BBJ39	hypothetical protein
BBJ40	hypothetical protein
BBJ42	hypothetical protein
BBJ44	hypothetical protein
BBJ46	hypothetical protein
BBJ47	hypothetical protein
BBJ48	hypothetical protein
BBK02	hypothetical protein
BBK02.1	conserved hypothetical protein, pseudogene
BBK03	hypothetical protein
BBK04	hypothetical protein
BBK05	hypothetical protein
BBK07	hypothetical protein
BBK08	hypothetical protein
BBK09	hypothetical protein
BBK12	hypothetical protein
BBK14	hypothetical protein
BBK15	antigen, P35, putative
BBK20	hypothetical protein
BBK21	plasmid partition protein, putative
BBK24.1	hypothetical protein
BBK25	transposase-like protein, authentic frameshift

BBK25.1	conserved hypothetical protein, pseudogene
BBK26	hypothetical protein
BBK27	hypothetical protein
BBK28	hypothetical protein
BBK29	hypothetical protein
BBK31	hypothetical protein
BBK32	immunogenic protein P35
BBK33	hypothetical protein
BBK35	hypothetical protein
BBK36	hypothetical protein
BBK37	immunogenic protein P37, authentic frameshift
BBK38	hypothetical protein
BBK42	hypothetical protein
BBK42.1	conserved hypothetical protein, pseudogene
BBK43	hypothetical protein
BBK44	hypothetical protein
BBK46	immunogenic protein P37, authentic frameshift
BBK49	hypothetical protein
BBK50	immunogenic protein P37
BBK51	hypothetical protein
BBK52	protein p23
BBK52.1	conserved hypothetical protein, pseudogene
BBK54	conserved hypothetical protein
BBL14	hypothetical protein
BBL18	hypothetical protein
BBL27	conserved hypothetical protein
BBL30	conserved hypothetical protein
BBL33	hypothetical protein
BBL34	conserved hypothetical protein
BBL36	conserved hypothetical protein
BBL41	hypothetical protein
BBL42	hypothetical protein
BBL43	conserved hypothetical protein
BBM04	hypothetical protein
BBM10	conserved hypothetical protein
BBM14	hypothetical protein
BBM16	hypothetical protein
BBM18	hypothetical protein
BBM27	rev protein (rev)
BBM33	conserved hypothetical protein
BBM37	conserved hypothetical protein
BBM39	hypothetical protein
BBM40	hypothetical protein
BBM42	conserved hypothetical protein
BBN16	hypothetical protein, paralogous family 157, authentic frameshift
BBN18	hypothetical protein, paralogous family 160, authentic point mutation

BBN29	hypothetical protein, paralogous family 161, authentic point mutation
BBN33	conserved hypothetical protein
BBN36	conserved hypothetical protein
BBN37	hypothetical protein, paralogous family 96, authentic point mutation
BBN40	hypothetical protein
BBN43	conserved hypothetical protein
BBO01	hypothetical protein
BBO15	hypothetical protein
BBO17	hypothetical protein
BBO18	hypothetical protein
BBO29	hypothetical protein
BBO32	plasmid partition protein, putative
BBO34	conserved hypothetical protein
BBO35	hypothetical protein
BBO37	conserved hypothetical protein
BBO40	erpM protein (erpM)
BBO42	hypothetical protein
BBO43	hypothetical protein
BBP16	hypothetical protein
BBP18	hypothetical protein
BBP25	conserved hypothetical protein
BBP27	rev protein (rev)
BBP40	hypothetical protein
BBP42	conserved hypothetical protein
BBQ01	conserved hypothetical protein
BBQ02	hypothetical protein
BBQ03	outer membrane protein, putative
BBQ05	antigen, P35, putative
BBQ08	plasmid partition protein, putative
BBQ09	conserved hypothetical protein
BBQ10	hypothetical protein
BBQ18	hypothetical protein
BBQ19	hypothetical protein
BBQ23	hypothetical protein
BBQ34	conserved hypothetical protein
BBQ36	hypothetical protein
BBQ38	conserved hypothetical protein
BBQ39	conserved hypothetical protein
BBQ41	conserved hypothetical protein
BBQ43	conserved hypothetical protein
BBQ45	conserved hypothetical protein
BBQ46	hypothetical protein
BBQ47	erpX protein (erpX)
BBQ49	hypothetical protein
BBQ54	hypothetical protein
BBQ55	hypothetical protein
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BBQ56	hypothetical protein
BBQ58	hypothetical protein
BBQ61	hypothetical protein
BBQ62	hypothetical protein
DDO65	concerned hypothetica

BBQ65 conserved hypothetical protein, pseudogene

BBQ66 hypothetical protein BBQ68 hypothetical protein

BBQ69 hypothetical protein, family 115 paralog, pseudogene

BBQ70 hypothetical protein

BBQ71 multidrug efflux transporter, pseudogene

BBQ72 hypothetical protein

BBQ73 conserved hypothetical protein, pseudogene BBQ74 conserved hypothetical protein, pseudogene BBQ75 conserved hypothetical protein, pseudogene

BBQ76 hypothetical protein

BBQ77 transposase-like protein, pseudogene

BBQ78 hypothetical protein

BBQ79 hypothetical protein, pseudogene

BBQ81 conserved hypothetical protein, pseudogene

BBQ82 hypothetical protein BBQ84 hypothetical protein

BBQ84.1 pseudogene

BBR15 hypothetical protein

BBR20 conserved hypothetical protein

BBR30 hypothetical protein

BBR33 plasmid partition protein, putative

BBR35 conserved hypothetical protein, authentic point mutation

BBR37 conserved hypothetical protein

BBR39 hypothetical protein BBR40 erpH protein (erpH) BBR43 hypothetical protein BBR44 hypothetical protein

BBR45 conserved hypothetical protein

BBS18 hypothetical protein BBS27 hypothetical protein BBS28 hypothetical protein

BBS33 conserved hypothetical protein BBS40 conserved hypothethical protein BBS42 associated protein A (bapA)

BBS43 hypothetical protein BBT01 hypothetical protein

BBT02 conserved hypothetical protein

BBT03 hypothetical protein

BBT04 conserved hypothetical protein

BBT05 hypothetical protein, family 57 paralog, pseudogene

BBT06 conserved hypothetical protein

BBU02	hypothetical protein
BBU03	hypothetical protein
BBU04	conserved hypothetical protein
BBU05	plasmid partition protein, putative
BBU11	conserved hypothetical protein
BBU12	conserved hypothetical protein, authentic frameshift

Oligonucleotide	Sequence $(5' \rightarrow 3')$	
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General rrp1 p	orimers
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Jeneral Try Printers	
BB0420F3135 (1)	TGTGCGCTATGTAGCGTCTTTTG
BB0420R3435 (2)	TGGAACCAAATCCTCAAAATCC
BB0420F4277 (3)	CCTTCTCAACAACTTTTAATTG
BB0419R199 (4)	GACCTATGTCAAGAAGTATAAG
BB0419F113 (5)	ACGAGATTGAGGTTGCAACAAATG
BB0419R459 (6)	TGGAATTTGAGTAAGCCCATC
BB0419F_LIC (7)	GACGACGACAAGATGGAAATGATAATTAAAGATAAAGC
BB0419R_LIC (8)	GAGGAGAAGCCCGGTTTAATATCTAAACTGATTTCTTCCAG
BB0419F-RT (9)	TTGAGGTTGCAACAAATGGA
BB0419R-RT (10)	CGGGATCGCTTTTAGCTTT
419KO-upF (11)	GCCCATTAATGTTTTAATAGCTGA
419KO-upR (12)	ACCGGTCTAGACGTCTTTATCTTTAATTATCATTTCCACTGT
419KO-dnF (13)	GACGTCCTGGAAGAAATCAGTTTAGATAATAAA
419KO-dnR (14)	ACCGGTGCTTATTATCCTCCCCACGAG
spec/strep F (15)	TGATTTGCTGGTTACGGTGA
spec/strep R (16)	ATTTGCCGACTACCTTGGTG
aad1-5'-R (17)	TCCTTGAAGCTCGGGTATTA
pKFSS1-3'F (18)	GGCGAGATCACCAAGGTAGTC
KOverifyUp F (19)	CTTTAATGGGGCTTGGTATATGC

Real time RT-PCR primers

tour time it i out primer	5
BB0167QF	TTGGAAGAAGAGATGCACGA
BB0167QR	TGGTTTTTGAGATCCCCATC
BBO241QF	ATTTGGACAAGCCTGCCTTA
BBO241QR	TTCCCCATGCAATTGAAGTT
BBO242QF	TGTTTGGCAAGCAAATAAATCA
BB0242QR	TGCTCCAATGAATTTTACCTTTT
BB0243QF	TGCGGTAGACGCAATTACAA
BB0243QR	CGCGCAAAGCTTCTTTAACT
BB0367QF	AGAGCATATTGTAGAATGCTTCG
BB0367QR	TTTTTGTTAAATCGTCTCTTTTGA
BB0420QF	TGGCAAGTCGAATACCCTCT
BB0420QR	TGTTCGATTTTATTGGGATGC
BB0450QF	TGTTTTTGCTCCACCAACAG
BB0450QR	AGGCCAATGAACTTGAGCAT
BB0596QF	GCCCATCATCAGAGAACCTT
BB0596QR	CAAGCGTTGAACAGTCCTCA
BB0629QF	TTCCTCCTGCCATTATGCTT
BB0629QR	AGCTTTGCTTGGAGGAATGA
BB0683QF	AGGCGTTGATCATTCAAAGG
BB0683QR	GCAAAGACATAGCAGCACCA

BB06870F TTGGTTCAAGTGCTGTCGTT **BB0687QR** CCACTGCCTATTCCTCCTTG BB0769OF AGCCTCTCCACAAGCATCAT **BB0769QR** AGCCTCTCCACAAGCATCAT BB07710F TCGGGTCATATTTTTCAGCA **BB0771QR** AGGCAATGCAAAAGCAAAAA BBA30QF GACCTGGCAGAAGAAAGCAC BBA30QR **CCTTTCAGCCTCATTTTTGG** GCCAAATGTTTCTTGGCATT BBB16QF BBB16QR TCGGCAGTAATGGAAACTCC BBB17QF TTTCGGGTTTTTTGCTCATTT BBB17QR CCATTGCTAAAGAGGGTGGA BBB18OF AAGCAATGCGCAAACTAAAGA BBB18QR TAAAATTTGCCAAGCCCAAA BBB190F GAAAGAGGTTGAAGCGTTGC BBB19QR ATTGCATAAGCTCCCGCTAA BBH06QF CCCCTCAAGTTCTACAGCA

BBH06QR TTGAGTGTATTGTGAAAACTATTGGA

CAATGACTAAAGGCGGATCAT BBN38QF BBN38QR ACGCAATATGTTCAGCACCA BBL39QF TGATGAGCAAAGCAATGGAG AAACCCGTTTCAATACCATCTTT BBL39QR BBA68OF GCGCACCTTTTAGCAAAATC BBA68QR GCTCTGAAGCGATAGTTTCCAT BBM38OF CCAGAAGCAAAAGTTCAACCA BBM38QR TCAGCAACACCTTGAACCAC BBO39QF GCAAAGAAAAGGGGGAGAG BBO39OR GCCTTGAGTTTTCCCAGTTG BBR42QF AAAACCAAGCTGAATCTGCAA BBR42QR CCCCAAACTATTAGCACACTGC

Plasmid-specific primers

BBA16F	GCACAAAAAGGTGCTGAG
BBA16R	CACTTGCTGATCCTTCAG
BBB19F	AATAATTCAGGGAAAGATGGG
BBB19R	AGGTTTTTTTGGACTTTCTGCC
DDC10E	C A A C T A T T A T A A A A A A C C A C

BBC10F GAACTATTTATAAAAAAGGAGAGC
BBC10R ATCTTCTTCAAGATATTTATATAC
BBD21F CTACCTTAAGCGGAAATATTGC

BBD21R GAATAATTCTTCGCTCCCAAAGCTC
BBE16F ATGGGTAAAATATTATTTTTGGG
BBE16R AAGATTGTATTTTGGCAAAAAATTTTC

BBF20F ATGAACAAAAATTTTCTATTTC
BBF20R GTTGCTTTTGCAATATGAATAGG

BBG02F TCCCTAGTTCTAGTATCTAGACCG BBG02R TTTTTTTTGTATGCCAATTGTATAATG

BBH28F	GGCTTCAATTAAGGGAGGAG
BBH28R	CACAATATAATCCGCAACATTC
BBI26F	GCAAGGACTTTGCCACATGCTG
BBI26R	CGAAATAGCACATAGATAATTCC
BBJ34F	AAATTCTATGGAAGTGATG
BBJ34R	TTTATCTTTATTTTAGGC
BBK19F	AAGTTTATGTTTATTCG
BBK19R	ATTGTTAGGTTTTTCTTTTCC
BBL32/33F	GAAGATTTAAACAAAAAATTGCG
BBL32/33R	GTAATCACTTCTTTTTACCATCG
BBM32F	GACTTTACATAGTATAAATGCTTTTGG
BBM32R	TCTCGTTATTATAAAATAAGTAGG
BBN32/33F	TATCAAAAAGTGCTGTTTTATAG
BBN32/33R	TAATCTCAAATATTCTTCTTTATG
BBO32F	GGAATGTATTAATTGATAATTCAG
BBO32R	GCGAAATAAATAGTGCCTTATGGG
BBP33F	ACGATAGGGTAATATCAAAAAAGG
BBP33R	AGTTCATCTAATAAAAATCCCGTG
BBQ47F	AAGATTGATGCAACTGGTAAAG
BBQ47R	CTGACTGTAACTGATGTATCC
BBR33F	AGATCCTCAAAATAGTTTAACCAG
BBR33R	TTAATATTGGCAGAGAGTCTACAG
BBS53F	TTACGAAAAATAGAAAAACTAGG
BBS53R	TTTCCACTGCCCACTTTTCAGCCG
LP5F	CTTGCTTTAAGCCCTATTTCAC
LP5R	GCACACTACCCATTTTTGAATC
BBU21F	AGTAAAGGAGTTCTGCAAAAATT
BBU21R	GTTGTCACCTCGTGTAATATG