Table 4. Genes with significantly altered expression only in the *ntrA* mutant relative to WT (regulatory group 1).

ORF	Name	Description	Ratio, *ntrA*/WT	SE*	*P*†	Main role	Subrole	Potential to cross-hybridize‡	Putative promoter§	Paralog. family no.	Rank¶	Taqman ratio‖
BB0001		Hypothetical protein	1.40	0.09	0.001	Hypothetical proteins			N		132	
BB0002		β-*N*-acetylhexosaminidase, putative	1.93	0.32	0.008	Energy metabolism	Biosynthesis and degradation of polysaccharides		N	21	237	1.22
BB0003		Hypothetical protein	1.74	0.24	0.009	Hypothetical proteins			N		217	1.31
BB0004	femD	Phosphoglucomutase	1.69	0.13	1E-04	Energy metabolism	Biosynthesis and degradation of polysaccharides		Y		208	
BB0005	trsA	Tryptophanyl-tRNA synthetase	1.61	0.18	0.004	Protein synthesis	tRNA aminoacylation		Y		193	
BB0007		Hypothetical protein	2.18	0.33	0.002	Hypothetical proteins			Y		251	
BB0011		Hypothetical protein	1.70	0.17	0.001	Hypothetical proteins			Y		209	
BB0018		Conserved hypothetical protein	0.66	0.04	7E-05	Hypothetical proteins - Conserved	Conserved		Y	45	75	
BB0021		*S*-adenosylmethionine: tRNA ribosyltransferase-isomerase	0.74	0.02	9E-07	Protein synthesis	tRNA and rRNA base modification		Y		119	
BB0022	ruvB	Holliday junction DNA helicase	0.69	0.04	1E-04	DNA metabolism	DNA replication, recombination, and repair		Y		96	
BB0023	ruvA	Holliday junction DNA helicase	2.05	0.22	3E-04	DNA metabolism	DNA replication, recombination, and repair		Y		249	
BB0024		hypothetical protein	1.72	0.23	0.008	Hypothetical proteins			Y		214	
BB0031	lepB-2	Signal peptidase I	1.86	0.29	0.006	Protein fate	Protein and peptide secretion and trafficking		N		233	
BB0033	smpB	Small protein	1.52	0.22	0.028	Unknown function	General		N		168	
BB0035	parC	DNA topoisomerase IV	1.56	0.26	0.04	DNA metabolism	DNA replication, recombination, and repair		N	31	180	
BB0038		hypothetical protein	0.74	0.04	0.001	Hypothetical proteins			Y		117	

BB0048		hypothetical protein	1.94	0.15	1E-04	Hypothetical proteins		N		239	
BB0051		Conserved hypothetical integral membrane protein	1.67	0.23	0.012	Hypothetical proteins - Conserved	Conserved	Y	47	205	
BB0052	spoU	SpoU protein	1.95	0.24	0.002	Protein synthesis	tRNA and rRNA base modification	N		240	1.01
BB0060		Conserved hypothetical protein	1.40	0.10	0.004	Hypothetical proteins - Conserved	Conserved	Y		129	
BB0068		Conserved hypothetical protein	1.38	0.09	0.001	Hypothetical proteins - Conserved	Conserved	N	97	127	
BB0072		hypothetical protein	1.98	0.23	0.001	Hypothetical proteins		N		243	
BB0074	prfB	Peptide chain release factor 2, programmed frameshift	1.55	0.25	0.036	Protein synthesis	Translation factors	Y	43	176	
BB0076	ftsY	Signal recognition particle-docking protein FtsY	1.85	0.17	9E-04	Protein fate	Protein and peptide secretion and trafficking	Y	10	231	
BB0080		ABC transporter, ATP-binding protein	1.43	0.09	6E-04	Transport and binding proteins	Unknown substrate	N	4	139	
BB0099		Conserved hypothetical protein	1.50	0.16	0.009	Hypothetical proteins - Conserved	Conserved	Y		158	
BB0102		hypothetical protein	1.80	0.10	1E-05	Hypothetical proteins		Y		224	
BB0109	fadA	Acetyl-CoA C-acetyltransferase	0.53	0.03	1E-05	Fatty acid and phospholipid metabolism	Biosynthesis	N		10	0.87
BB0118		Zinc protease, putative	1.75	0.25	0.009	Protein fate	Degradation of proteins, peptides, and glycopeptides	Y		220	
BB0119	cdsA	Phosphatidate cytidylyltransferase, authentic frameshift	1.44	0.09	5E-04	Fatty acid and phospholipid metabolism	Biosynthesis	N		142	
BB0139		hypothetical protein	1.42	0.13	0.006	Hypothetical proteins		Y		135	
BB0143		Conserved hypothetical protein	1.81	0.21	0.003	Hypothetical proteins - Conserved	Conserved	N		226	
BB0144	proX	Glycine betaine, L-proline ABC transporter, glycine/betaine/L-proline-binding protein	1.41	0.11	0.006	Transport and binding proteins	Amino acids, peptides and amines	Y		134	
BB0149	fliD	Flagellar hook-associated protein 2	1.49	0.12	0.004	Cellular processes	Chemotaxis and motility	Y		157	
BB0169	infA	Translation initiation factor 1	1.39	0.09	0.002	Protein synthesis	Translation factors	N		128	

BB0200	ddlA	D-alanine--D-alanine ligase	0.67	0.04	7E-04	Cell envelope	Biosynthesis of murein sacculus and peptidoglycan	Y		79
BB0209		hypothetical protein	1.32	0.06	3E-04	Hypothetical proteins		N		122
BB0212		hypothetical protein	2.28	0.12	7E-06	Hypothetical proteins		N		254
BB0216	pstC	Phosphate ABC transporter, permease protein	1.73	0.25	0.009	Transport and binding proteins	Anions	Y	41	216
BB0220	alaS	Alanyl-tRNA synthetase	1.66	0.21	0.008	Protein synthesis	tRNA aminoacylation	N		203
BB0223		hypothetical protein	0.75	0.03	2E-05	Hypothetical proteins		N	40	120
BB0224		Lipoprotein, putative	1.52	0.11	3E-04	Cell envelope	Other	Y	40	166
BB0244		Conserved hypothetical protein	2.01	0.24	7E-04	Hypothetical proteins - Conserved	Conserved	Y		244
BB0248	pepF	Oligoendopeptidase F	1.62	0.22	0.013	Protein fate	Degradation of proteins, peptides, and glycopeptides	N		195
BB0260		hypothetical protein	1.43	0.05	1E-05	Hypothetical proteins		N		140
BB0261		hypothetical protein	1.44	0.05	2E-06	Hypothetical proteins		N		143
BB0270	flhF	Flagellar-associated GTP-binding protein	0.65	0.05	0.002	Cellular processes	Chemotaxis and motility	N	10	64
BB0275	fliP	Flagellar biosynthesis protein	1.45	0.14	0.006	Cellular processes	Chemotaxis and motility	N		150
BB0296	hslV	Heat shock protein	0.55	0.04	8E-05	Protein fate	Protein folding and stabilization	Y		14
BB0297		Smg protein	0.62	0.07	0.006	Unknown function	General	N		42
BB0309		hypothetical protein	1.50	0.07	2E-05	Hypothetical proteins		N		159
BB0314	ispB	Octaprenyl-diphosphate synthase	1.46	0.09	5E-04	Biosynthesis of cofactors, prosthetic groups, and carriers	Menaquinone and ubiquinone	N		152
BB0329	oppA-2	Oligopeptide ABC transporter, periplasmic oligopeptide-binding protein	1.45	0.15	0.01	Transport and binding proteins	Amino acids, peptides and amines	N	37	151
BB0333	oppC-1	Oligopeptide ABC transporter, permease protein	1.41	0.08	4E-04	Transport and binding proteins	Amino acids, peptides and amines	Y	41	133
BB0353		hypothetical protein	1.61	0.15	8E-04	Hypothetical proteins		N		192
BB0354		hypothetical protein	2.04	0.56	0.033	Hypothetical proteins		N		248

BB0357		hypothetical protein	1.53	0.19	0.016	Hypothetical proteins		N		174	
BB0397		hypothetical protein	1.58	0.15	0.004	Hypothetical proteins		N		187	
BB0404		hypothetical protein	0.70	0.05	0.003	Hypothetical proteins		N		103	
BB0406		hypothetical protein	0.71	0.02	2E-08	Hypothetical proteins		Y	35	109	
BB0407	manA	Mannose-6-phosphate isomerase	1.60	0.17	0.005	Energy metabolism	Sugars	Y		190	
BB0412		hypothetical protein	1.76	0.14	1E-04	Hypothetical proteins		N		221	
BB0416	traB	Pheromone shutdown protein	1.71	0.12	8E-05	Regulatory functions	Other	Y		211	0.90
BB0420		Sensory transduction histidine kinase/response regulator	1.65	0.17	0.003	Regulatory functions	Other	Y	14	202	0.85
BB0427		Conserved hypothetical protein	0.50	0.03	2E-07	Hypothetical proteins - Conserved	Conserved	N		6	0.63
BB0432		hypothetical protein	1.36	0.07	5E-04	Hypothetical proteins		Y		125	
BB0437	dnaA	Chromosomal replication initiator protein	1.63	0.16	0.002	DNA metabolism	DNA replication, recombination, and repair	Y		199	
BB0441	rnpA	Ribonuclease P protein component	1.57	0.18	0.005	Transcription	Degradation of RNA	N		182	
BB0449		Conserved hypothetical protein	1.62	0.24	0.013	Hypothetical proteins - Conserved	Conserved	N		196	
BB0450	ntrA	RNA polymerase sigma-54 factor	0.74	0.04	1E-03	Transcription	DNA-dependent RNA polymerase	Y		116	
BB0451		Chromate transport protein, putative	0.70	0.08	0.019	Transport and binding proteins	Other	Y	29	99	
BB0456		hypothetical protein	0.64	0.09	0.018	Hypothetical proteins		Y		55	
BB0457	uvrC	Excinuclease ABC, subunit C	1.43	0.13	0.006	DNA metabolism	DNA replication, recombination, and repair	N		138	
BB0461	dnaX	DNA polymerase III, subunits gamma and tau	1.90	0.25	0.003	DNA metabolism	DNA replication, recombination, and repair	N		236	
BB0465		hypothetical protein	2.03	0.18	1E-04	Hypothetical proteins		N		247	
BB0469	lsp	Signal peptidase II	1.62	0.19	0.005	Protein fate	Protein and peptide secretion and trafficking	N		194	

BB0473		Conserved hypothetical integral membrane protein	1.51	0.19	0.018	Hypothetical proteins - Conserved		Y	56	165	
BB0515	trxB	Thioredoxin reductase	0.56	0.09	0.013	Energy metabolism	Electron transport	Y		17	0.48
BB0534	exoA	Exodeoxyribonuclease III	1.98	0.25	0.002	DNA metabolism	DNA replication, recombination, and repair	Y		242	1.12
BB0535		hypothetical protein	1.86	0.25	0.004	Hypothetical proteins		Y		234	
BB0536		Zinc protease, putative	1.72	0.29	0.02	Protein fate	Degradation of proteins, peptides, and glycopeptides	N		215	
BB0537		Conserved hypothetical protein	1.96	0.44	0.023	Hypothetical proteins - Conserved		N		241	
BB0538		Conserved hypothetical protein	1.61	0.22	0.015	Hypothetical proteins - Conserved		Y	125	191	
BB0546		hypothetical protein	1.50	0.10	1E-04	Hypothetical proteins		N		160	
BB0562		hypothetical protein	1.79	0.24	0.006	Hypothetical proteins		Y	35	223	
BB0571	smbA	Uridylate kinase	1.45	0.13	0.005	Purines, pyrimidines, nucleosides, and nucleotides	Nucleotide and nucleoside interconversions	N		146	
BB0574		Conserved hypothetical integral membrane protein	1.49	0.18	0.016	Hypothetical proteins - Conserved		Y		156	
BB0580		Conserved hypothetical integral membrane protein	0.73	0.05	0.001	Hypothetical proteins - Conserved		N		113	
BB0585	murD	UDP-*N*-acetylmuramoylalanine--D-glutamate ligase	1.56	0.19	0.01	Cell envelope	Biosynthesis of murein sacculus and peptidoglycan	Y		179	
BB0588	pfs-2	5-methylthioadenosine/*S*-adenosylhomocysteine nucleosidase, putative	0.62	0.05	7E-04	Purines, pyrimidines, nucleosides, and nucleotides	Salvage of nucleosides and nucleotides	Y	26	39	
BB0589	pta	Phosphate acetyltransferase	1.54	0.09	9E-05	Energy metabolism	Fermentation	N		175	
BB0592		hypothetical protein	0.67	0.05	9E-04	Hypothetical proteins		N		76	
BB0604	lctP	L-lactate permease	1.43	0.12	0.005	Transport and binding proteins	Carbohydrates, organic alcohols, and acids	N		141	
BB0612	clpX	ATP-dependent Clp protease, subunit X	0.62	0.05	0.001	Protein fate	Degradation of proteins, peptides, and glycopeptides	Y	127	44	

BB0613	lon-2	ATP-dependent protease LA	2.02	0.28	0.002	Protein fate	Degradation of proteins, peptides, and glycopeptides	Y	22	246	1.09
BB0626		Small primase-like protein	1.63	0.14	2E-04	Unknown function	General	Y		200	
BB0629	fruA-2	PTS system, fructose-specific IIABC component	1.85	0.21	0.002	Transport and binding proteins	Carbohydrates, organic alcohols, and acids	N	19	232	
BB0637	nhaC-1	Na+/H+ antiporter	1.48	0.16	0.008	Transport and binding proteins	Cations	Y	135	155	
BB0646		Hydrolase, alpha/beta fold family	1.43	0.06	1E-05	Hypothetical proteins		N		137	
BB0647	fur	Ferric uptake regulation protein	1.47	0.16	0.013	Regulatory functions	Other	N		153	1.48
BB0653	secF	Protein-export membrane protein	1.83	0.28	0.007	Protein fate	Protein and peptide secretion and trafficking	Y	136	230	
BB0669	cheA-2	Chemotaxis histidine kinase	1.58	0.10	9E-05	Cellular processes	Chemotaxis and motility	N	134	186	
BB0675		hypothetical protein	1.51	0.20	0.024	Hypothetical proteins		Y		163	
BB0677	mglA	Ribose/galactose ABC transporter, ATP-binding protein	0.70	0.06	0.007	Transport and binding proteins	Carbohydrates, organic alcohols, and acids	Y	4	100	
BB0678	rbsC-1	Ribose/galactose ABC transporter, permease protein	0.72	0.04	1E-04	Transport and binding proteins	Carbohydrates, organic alcohols, and acids	Y	130	111	
BB0686		Mevalonate pyrophosphate decarboxylase	0.71	0.02	1E-06	Fatty acid and phospholipid metabolism	Biosynthesis	Y		108	
BB0697		Conserved hypothetical protein	1.45	0.16	0.015	Hypothetical proteins - Conserved	Conserved	N		148	
BB0710	dnaG	DNA primase	0.68	0.04	4E-04	DNA metabolism	DNA replication, recombination, and repair	N		89	
BB0711		hypothetical protein	0.62	0.07	0.006	Hypothetical proteins		N		45	
BB0713		Conserved hypothetical protein	1.56	0.05	8E-07	Hypothetical proteins - Conserved	Conserved	Y		181	
BB0721		CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase	1.51	0.14	0.005	Fatty acid and phospholipid metabolism	Biosynthesis	Y		162	
BB0726	ylxH-3	MinD-related ATP-binding protein	0.69	0.06	0.006	Cellular processes	Cell division	Y	32	95	

BB0736		hypothetical protein	1.45	0.13	0.005	Hypothetical proteins		N		147	
BB0740		Conserved hypothetical protein	1.53	0.15	0.004	Hypothetical proteins - Conserved	Conserved	Y		171	
BB0774	flgG	Flagellar basal-body rod protein	1.68	0.16	0.002	Cellular processes	Chemotaxis and motility	Y	78	206	
BB0775	flhO	Flagellar hook-basal body complex protein	1.71	0.33	0.031	Cellular processes	Chemotaxis and motility	N	78	210	
BB0781	obg	GTP-binding protein	1.71	0.14	6E-05	Cellular processes	Other	Y		213	
BB0788		Conserved hypothetical protein	0.62	0.03	1E-06	Hypothetical proteins - Conserved	Conserved	Y		43	
BB0793	tmk	Thymidylate kinase	1.48	0.18	0.016	Purines, pyrimidines, nucleosides, and nucleotides	Nucleotide and nucleoside interconversions	Y		154	
BB0797	mutS	DNA mismatch repair protein	1.76	0.22	0.004	DNA metabolism	DNA replication, recombination, and repair	Y	118	222	0.80
BB0820		hypothetical protein	2.13	0.13	1E-06	Hypothetical proteins		Y		250	
BB0821	miaA	2-methylthio-N6-isopentyladenosine tRNA modification enzyme	1.53	0.16	0.006	Protein synthesis	tRNA and rRNA base modification	N		173	
BB0827	hrpA	ATP-dependent helicase	1.57	0.18	0.01	DNA metabolism	DNA replication, recombination, and repair	Y		184	
BB0830	sbcC	Exonuclease SbcC	1.71	0.14	2E-04	DNA metabolism	DNA replication, recombination, and repair	N		212	
BB0832		Lipoprotein, putative	1.81	0.31	0.014	Cell envelope	Other	Y		228	
BB0834	clpC	ATP-dependent Clp protease, subunit C	1.53	0.14	0.002	Protein fate	Degradation of proteins, peptides, and glycopeptides	Y	23	170	0.98
BB0837	uvrA	Excinuclease ABC, subunit A	0.59	0.06	0.001	DNA metabolism	DNA replication, recombination, and repair	Y		24	
BB0847		hypothetical protein	1.53	0.09	1E-04	Hypothetical proteins		N		172	
BBA07		ChpAI protein, putative	0.49	0.15	0.047	Regulatory functions	Other	N		3	0.08
BBA11		Conserved hypothetical protein	0.67	0.06	0.003	Hypothetical proteins - Conserved	Conserved	Y	142	80	
BBA20		Plasmid partition protein, putative	1.89	0.37	0.018	Cellular processes	Cell division	N	32	235	

BBA28		hypothetical protein	1.52	0.18	0.014	Hypothetical proteins		N		167	
BBA39		hypothetical protein	0.58	0.06	0.003	Hypothetical proteins		N	147	23	
BBA41		Conserved hypothetical protein	0.69	0.05	0.003	Hypothetical proteins - Conserved		Y	149	90	
BBA43		Conserved hypothetical protein	0.67	0.03	2E-04	Hypothetical proteins - Conserved		N	107	81	
BBA55		hypothetical protein	0.76	0.03	8E-06	Hypothetical proteins		N	159	121	
BBA56		hypothetical protein	0.63	0.03	5E-05	Hypothetical proteins		Y	160	53	
BBA57		hypothetical protein	0.63	0.03	6E-07	Hypothetical proteins		N		51	
BBA68		hypothetical protein	1.42	0.14	0.01	Hypothetical proteins		N	54	136	
BBB01		Conserved hypothetical protein	1.45	0.15	0.015	Hypothetical proteins - Conserved		N		149	
BBB05	celC	PTS system, cellobiose-specific IIA component	0.64	0.08	0.01	Transport and binding proteins	Carbohydrates, organic alcohols, and acids	Y		59	
BBB06	celA	PTS system, cellobiose-specific IIB component	0.50	0.05	8E-04	Transport and binding proteins	Carbohydrates, organic alcohols, and acids	Y		5	0.62
BBB07		Outer surface protein, putative	0.57	0.05	0.001	Cell envelope	Other	N		19	
BBB08		hypothetical protein	0.61	0.05	9E-04	Hypothetical proteins		N		36	
BBB09		hypothetical protein	0.63	0.04	7E-05	Hypothetical proteins		N		54	
BBB10		Conserved hypothetical protein	0.62	0.11	0.031	Hypothetical proteins - Conserved		N	62	41	
BBB14		hypothetical protein	0.63	0.04	2E-04	Hypothetical proteins - Conserved		N		46	
BBD14		Conserved hypothetical protein	0.63	0.05	0.001	Hypothetical proteins - Conserved		N	62	47	
BBF18		Transposase-like protein, authentic frameshift	0.64	0.12	0.047	Other categories	Transposon functions	N	82	56	
BBF19		Transposase-like protein, authentic frameshift	1.40	0.10	0.004	Other categories	Transposon functions	N	82	130	
BBF20		Conserved hypothetical protein	1.58	0.08	2E-04	Hypothetical proteins - Conserved		N	85	185	
BBF23		Conserved hypothetical protein	0.63	0.03	3E-07	Hypothetical proteins - Conserved		N	49	49	

BBF25		Conserved hypothetical protein	1.53	0.07	1E-04	Hypothetical proteins - Conserved			N	50	169	
BBF27		hypothetical protein	1.63	0.14	1E-03	Hypothetical proteins			N	101	197	
BBF33	vlsE	Vmp-like sequence protein	0.59	0.04	1E-05	Cell envelope	Other		N		27	0.88
BBG09		Conserved hypothetical protein	2.01	0.31	0.004	Hypothetical proteins - Conserved			N	49	245	
BBH18.1		Conserved hypothetical protein, pseudogene	0.43	0.08	0.037	Hypothetical proteins - Conserved			N	65	1	
BBH25		hypothetical protein	1.67	0.28	0.025	Hypothetical proteins		+	N		204	
BBH28		Plasmid partition protein, putative	1.51	0.20	0.025	Cellular processes	Cell division		N	32	164	
BBH29		Conserved hypothetical protein	1.45	0.14	0.008	Hypothetical proteins - Conserved			N	49	145	
BBI02.2		Brute Force ORF	2.21	0.49	0.061	Hypothetical proteins			N	73	252	
BBI42		Outer membrane protein, putative	0.71	0.07	0.009	Cell envelope	Other		Y	52	107	
BBJ23		hypothetical protein	0.66	0.04	6E-04	Hypothetical proteins			N	106	70	
BBJ34		hypothetical protein	1.68	0.18	0.001	Hypothetical proteins			N	92	207	
BBK04		hypothetical protein	0.61	0.12	0.042	Hypothetical proteins			N	1	37	
BBK06		hypothetical protein	1.37	0.05	2E-06	Hypothetical proteins			N		126	
BBK07		hypothetical protein	1.34	0.07	0.002	Hypothetical proteins			Y	59	123	
BBK15		Antigen, P35, putative	1.81	0.16	4E-04	Cell envelope	Biosynthesis and degradation of surface polysaccharides and lipopolysaccharides		N	60	225	
BBK18		Conserved hypothetical protein	1.58	0.22	0.017	Hypothetical proteins - Conserved			N		188	
BBK21		Plasmid partition protein, putative	1.82	0.09	9E-07	Cellular processes	Cell division		Y	32	229	
BBK24.1		hypothetical protein	1.63	0.17	0.029	Hypothetical proteins		+	Y		198	
BBK26		hypothetical protein	0.72	0.06	0.01	Hypothetical proteins			N	1	110	

BBK52.1		Conserved hypothetical protein, pseudogene	0.70	0.03	0.008	Hypothetical proteins - Conserved		+	N	174	105
BBL09		Conserved hypothetical protein	0.54	0.02	2E-09	Hypothetical proteins - Conserved		+	N	108	12
BBL15		hypothetical protein	0.63	0.06	0.003	Hypothetical proteins		+	Y	156	50
BBL19		Conserved hypothetical protein	0.56	0.04	2E-04	Hypothetical proteins - Conserved		+	N	139	16
BBL28		Lipoprotein	0.72	0.04	5E-04	Cell envelope	Other		Y	113	112
BBL29		Conserved hypothetical protein	1.35	0.08	5E-04	Hypothetical proteins - Conserved		+	N	161	124
BBL33		hypothetical protein	1.64	0.11	5E-04	Hypothetical proteins			N		201
BBL34		Conserved hypothetical protein	1.74	0.19	0.002	Hypothetical proteins - Conserved			N	49	219
BBL35		Conserved hypothetical protein	1.57	0.05	4E-08	Hypothetical proteins - Conserved			Y	80	183
BBM02		hypothetical protein	0.60	0.08	0.011	Hypothetical proteins		+	N	147	32
BBM03		hypothetical protein	0.63	0.05	0.002	Hypothetical proteins		+	N	148	52
BBM15		hypothetical protein	1.55	0.05	1E-07	Hypothetical proteins			Y	156	177
BBM20		Conserved hypothetical protein	0.46	0.02	1E-08	Hypothetical proteins - Conserved			Y	140	2
BBM22		Conserved hypothetical protein	0.66	0.04	1E-04	Hypothetical proteins - Conserved			Y	142	74
BBM24	blyB	Hemolysin accessory protein	0.58	0.05	4E-04	Cellular processes	Toxin production and resistance		N	111	21
BBM25		Conserved hypothetical protein	0.68	0.04	4E-04	Hypothetical proteins - Conserved		+	N	112	85
BBM26		Conserved hypothetical protein	0.71	0.02	5E-06	Hypothetical proteins - Conserved		+	Y	143	106
BBM37		Conserved hypothetical protein	1.44	0.05	1E-05	Hypothetical proteins - Conserved		+	Y	96	144
BBN19		Conserved hypothetical protein	0.55	0.04	1E-04	Hypothetical proteins - Conserved		+	Y	139	15
BBN20		Conserved hypothetical protein	0.49	0.03	1E-06	Hypothetical proteins - Conserved		+	Y	140	4
BBN21		Hypothetical protein, authentic frameshift	0.56	0.03	8E-06	Hypothetical proteins - Conserved			N	141	18
BBN23	blyA	Pore-forming hemolysin	0.67	0.06	0.004	Cellular processes	Toxin production and resistance		Y	109	77

BBN24	blyB	Hemolysin accessory protein	0.67	0.04	2E-04	Cellular processes	Toxin production and resistance	+	N	111	78
BBN25		Conserved hypothetical protein	0.65	0.04	6E-04	Hypothetical proteins - Conserved			N	112	65
BBN32		Plasmid partition protein, putative	1.94	0.11	1E-07	Cellular processes	Cell division		Y	32	238
BBN33		Conserved hypothetical protein	1.59	0.12	0.001	Hypothetical proteins - Conserved			N	49	189
BBO01		hypothetical protein	0.69	0.05	0.002	Hypothetical proteins			Y	146	93
BBO02		hypothetical protein	0.59	0.06	0.002	Hypothetical proteins			N	147	25
BBO03		hypothetical protein	0.67	0.08	0.013	Hypothetical proteins		+	N	148	82
BBO04		hypothetical protein	0.61	0.03	1E-05	Hypothetical proteins		+	Y	148	38
BBO05		hypothetical protein	0.68	0.09	0.031	Hypothetical proteins		+	Y	148	87
BBO06		Conserved hypothetical protein	0.69	0.06	0.004	Hypothetical proteins - Conserved			N	149	92
BBO08		Conserved hypothetical protein	0.60	0.03	1E-04	Hypothetical proteins - Conserved		+	N	107	30
BBO36		Conserved hypothetical protein	0.58	0.02	6E-08	Hypothetical proteins - Conserved			N	165	22
BBO37		Conserved hypothetical protein	0.54	0.06	0.002	Hypothetical proteins - Conserved		+	Y	144	11
BBO42		hypothetical protein	0.69	0.08	0.025	Hypothetical proteins			N	114	97
BBO43		hypothetical protein	0.65	0.03	7E-05	Hypothetical proteins			N	115	62
BBO44		Conserved hypothetical protein	0.66	0.04	2E-04	Hypothetical proteins - Conserved			N	145	71
BBP02		hypothetical protein	0.69	0.06	0.006	Hypothetical proteins		+	N	147	91
BBP06		Conserved hypothetical protein	0.68	0.03	4E-05	Hypothetical proteins - Conserved		+	N	149	88
BBP09		Conserved hypothetical protein	0.65	0.03	4E-05	Hypothetical proteins - Conserved		+	N	108	66
BBP10		Conserved hypothetical protein	0.63	0.05	0.001	Hypothetical proteins - Conserved		+	Y	151	48
BBP11		hypothetical protein	0.64	0.04	7E-04	Hypothetical proteins		+	N	152	57

BBP19		Conserved hypothetical protein	0.65	0.05	0.001	Hypothetical proteins - Conserved		+	N	139	63
BBP20		Conserved hypothetical protein	0.64	0.03	2E-04	Hypothetical proteins - Conserved		+	Y	140	58
BBP21		Conserved hypothetical protein	0.66	0.06	0.007	Hypothetical proteins - Conserved		+	N	141	69
BBP23	blyA	Pore-forming hemolysin	0.59	0.04	5E-04	Cellular processes	Toxin production and resistance	+	N	109	29
BBP24	blyB	Hemolysin accessory protein	0.59	0.04	2E-04	Cellular processes	Toxin production and resistance	+	N	111	28
BBP42		Conserved hypothetical protein	0.65	0.04	9E-05	Hypothetical proteins - Conserved			N	145	68
BBQ02		hypothetical protein	0.60	0.05	5E-04	Hypothetical proteins		+	N	174	34
BBQ12		hypothetical protein	0.69	0.06	0.005	Hypothetical proteins			Y	148	98
BBQ13		Conserved hypothetical protein	0.64	0.04	3E-04	Hypothetical proteins - Conserved		+	N	149	60
BBQ14		Conserved hypothetical protein	0.54	0.08	0.006	Hypothetical proteins - Conserved			N	150	13
BBQ28		Conserved hypothetical protein	0.58	0.11	0.025	Hypothetical proteins - Conserved			N	141	20
BBQ29		Conserved hypothetical protein	0.60	0.05	6E-04	Hypothetical proteins - Conserved			Y	142	33
BBQ30	blyA	Pore-forming hemolysin	0.51	0.05	0.001	Cellular processes	Toxin production and resistance	+	N	109	8
BBQ32		Conserved hypothetical protein	0.59	0.05	8E-04	Hypothetical proteins - Conserved		+	N	112	26
BBQ36		hypothetical protein	1.51	0.13	0.002	Hypothetical proteins			Y		161
BBQ51		Hypothetical protein, authentic frameshift	0.66	0.07	0.006	Hypothetical proteins			Y	146	72
BBQ75		Conserved hypothetical protein, pseudogene	0.74	0.05	0.004	Hypothetical proteins - Conserved			N	168	118
BBR05		hypothetical protein	0.65	0.09	0.019	Hypothetical proteins			Y	148	67
BBR07		Conserved hypothetical protein	0.68	0.05	0.003	Hypothetical proteins - Conserved			N	150	86
BBR09		Conserved hypothetical protein	0.69	0.07	0.011	Hypothetical proteins - Conserved		+	N	108	94
BBR11		hypothetical protein	0.70	0.05	0.001	Hypothetical proteins			N	152	101

BBR19		Conserved hypothetical protein	0.70	0.06	0.005	Hypothetical proteins - Conserved		+	Y	139	102	
BBR20		Conserved hypothetical protein	0.68	0.02	2E-07	Hypothetical proteins - Conserved			Y	140	83	
BBR21		Conserved hypothetical protein	0.60	0.06	0.003	Hypothetical proteins - Conserved			N	141	35	
BBR23	blyA	Pore-forming hemolysin	0.51	0.03	1E-07	Cellular processes	Toxin production and resistance	+	N	109	7	
BBR24	blyB	Hemolysin accessory protein	0.66	0.07	0.007	Cellular processes	Toxin production and resistance	+	N	111	73	
BBR25		Conserved hypothetical protein	0.74	0.03	5E-05	Hypothetical proteins - Conserved		+	N	112	115	
BBR29		Conserved hypothetical protein	0.70	0.02	4E-05	Hypothetical proteins - Conserved			N	161	104	
BBR33		Plasmid partition protein, putative	1.55	0.17	0.008	Cellular processes	Cell division		Y	32	178	
BBR34		Conserved hypothetical protein	1.81	0.21	0.003	Hypothetical proteins - Conserved			N	49	227	
BBS01		hypothetical protein	0.60	0.08	0.009	Hypothetical proteins			N	146	31	
BBS04		hypothetical protein	0.68	0.08	0.022	Hypothetical proteins		+	Y	148	84	
BBS05		hypothetical protein	0.65	0.09	0.019	Hypothetical proteins		+	Y	148	61	
BBS06		Conserved hypothetical protein	0.62	0.06	0.002	Hypothetical proteins - Conserved		+	N	149	40	
BBS09		Conserved hypothetical protein	0.74	0.05	0.003	Hypothetical proteins - Conserved		+	N	108	114	
BBS18		hypothetical protein	1.40	0.08	0.001	Hypothetical proteins		+	N	160	131	
BBS41	ospG	Outer surface protein G	0.52	0.05	4E-04	Cell envelope	Other		Y	164	9	0.42
BBU05		Plasmid partition protein, putative	2.24	0.16	1E-05	Cellular processes	Cell division		N	32	253	
BBU06		Conserved hypothetical protein	1.74	0.27	0.014	Hypothetical proteins - Conserved			Y	49	218	

*Standard Error.

†*t*-test *P*-value indicating significant difference from ratio of 1.0.

‡Probe for this ORF has ≥ 80% identity to another probe on the array.

§Putative σ^{54}-dependent promoter upstream of this ORF. Y, putative promoter is present. N, no promoter found.

¶Rank order, from lowest to highest, of mutant/WT ratio.

‖Taqman ratio of *ntrA* mutant/WT.