

Supplemental Table S2

Biocide tolerance genes screened in this study

Gene	Gene description	Accession no.	Source
<i>qacEΔ1</i>	quaternary ammonium compound efflux SMR transporter	JN596280	(1)
<i>qacE</i>	quaternary ammonium compound-resistance protein	X68232	(1)
<i>qacF</i>	quaternary ammonium compound efflux SMR transporter	JN596279	(1)
<i>qacH</i>	quaternary ammonium compound resistance protein	FJ160769	(1)
<i>qacI</i>	quaternary ammonium compound resistance protein	HQ875011	(1)
<i>qacG</i>	quaternary ammonium compound resistance protein	FJ950725	(1)
<i>emrE</i>	efflux-multidrug resistance protein	AIGY01000024	(1)
<i>mdfa</i>	multidrug efflux pump/Na(+):H(+) antiporter/K(+):H(+) antiporter	Y08743	(1)
<i>sugE(c)</i>	SMR family transporter	X69949	(1)
<i>sugE(p)</i>	SMR family transporter	HQ023864	(1)
<i>ydgE</i>	multidrug transporter subunit	NC_011745	(1)
<i>ydgF</i>	multidrug transporter subunit	NC_011745	(1)
<i>BW690_25775</i>	S-(hydroxymethyl)glutathione dehydrogenase	X73835.1	(2)
<i>slp</i> (<i>Acid Fitness Island</i>)	starvation lipoprotein	NC_000913	(3)
<i>yhiF</i> (<i>Acid Fitness Island</i>)	putative DNA-binding transcriptional regulator	NC_000913	(3)
<i>yhiD</i> (<i>Acid Fitness Island</i>)	inner membrane protein	NC_000913	(3)
<i>hdeB</i> (<i>Acid Fitness Island</i>)	periplasmic acid stress chaperone	NC_000913	(3)
<i>hdeA</i> (<i>Acid Fitness Island</i>)	acid stress chaperone	NC_000913	(3)
<i>hdeD</i> (<i>Acid Fitness Island</i>)	acid-resistance membrane protein	NC_000913	(3)
<i>gadE</i> (<i>Acid Fitness Island</i>)	DNA-binding transcriptional activator	NC_000913	(3)
<i>yhiU</i> (<i>Acid Fitness Island</i>)	multidrug efflux pump membrane fusion protein	NC_000913	(3)
<i>yhiV</i> (<i>Acid Fitness Island</i>)	multidrug efflux pump RND permease	NC_000913	(3)
<i>gadW</i> (<i>Acid Fitness Island</i>)	DNA-binding transcriptional dual regulator	NC_000913	(3)
<i>gadY</i> (<i>Acid Fitness Island</i>)	small regulatory RNA	NC_000913	(3)
<i>gadX</i> (<i>Acid Fitness Island</i>)	DNA-binding transcriptional dual regulator	NC_000913	(3)
<i>gadA</i> (<i>Acid Fitness Island</i>)	glutamate decarboxylase A	NC_000913	(3)

Virulence associated genes (VAGs) screened in this study

Gene	Gene description	Accession no.	Source	Group
<i>afaB/afaC</i>	afimbrial-adhesin-encoding gene	X76688.1	(4)	adhesion
<i>afaE</i>	afimbrial-adhesin-encoding gene	M12868	(5)	adhesion
<i>bmaE</i>	M-agglutinin subunit	M15677	(4)	adhesion
<i>fimA</i>	type-1 fimbrial protein, A chain	NC_000913.3	(6)	adhesion
<i>fimC</i>	periplasm fimbrial chaperone protein	CP004009.1	(7)	adhesion
<i>fimH</i>	mannose-specific adhesin of type 1 fimbriae	AJ225176	(4)	adhesion
<i>focG</i>	F1C fimbriae subunit	S68237	(4)	adhesion
<i>gafD</i>	G-fimbrial lectin protein	L33969	(4)	adhesion
<i>iha</i>	bifunctional enterobactin receptor/adhesin protein	GU725392	(8)	adhesion
<i>papA</i>	fimbrial major pilin protein	X61239	(4)	adhesion
<i>papC</i>	fimbrial major pilin protein	X61239	(4)	adhesion
<i>papEF</i>	fimbrial major pilin protein	X61239	(4)	adhesion
<i>papG allele I</i>	fimbrial major pilin protein	X61239	(4)	adhesion
<i>papG allele I'</i>	fimbrial major pilin protein	X61239	(4)	adhesion
<i>papG-allele-II</i>	fimbrial major pilin protein	M20181	(4)	adhesion
<i>sfa/foc</i>	S and F1C fimbriae subunits	DQ301498	(4)	adhesion
<i>sfaS</i>	S fimbriae minor subunit SfaS	CP000243	(4)	adhesion
<i>tsh</i>	temperature-sensitive hemagglutinin	AY545598/ AF218073	(9), (10)	adhesion
<i>chuA</i>	outer membrane hemin receptor	U67920.1	(11)	iron uptake
<i>feoB</i>	ferrous iron transporter, protein B	GU361604.1	(12)	iron uptake
<i>fyuA</i>	yersiniabactin/pesticin outer membrane receptor	Z38064	(13)	iron uptake
<i>ireA</i>	iron-responsive element	AE014075	(8)	iron uptake
<i>iroD</i>	salmochelinsiderophore system, ferric enterochelin esterase	DQ381420.1	(14)	iron uptake
<i>iroN</i>	iron outer membrane receptor	AF449498	(14)	iron uptake
<i>irp-2</i>	yersiniabactin biosynthetic protein	L18881.1	(15)	iron uptake
<i>iucA</i>	N(2)-citryl-N(6)-acetyl-N(6)-hydroxylysine synthase	X76100.1	-	iron uptake
<i>iucD</i>	Iron uptake chelate protein D	M18968.1	(16)	iron uptake
<i>iutA</i>	aerobactin receptor	X05874	(4)	iron uptake
<i>sitA</i>	structural injection transglycosylase	AY126440.1	(17)	iron uptake
<i>flicC (H7)</i>	H7 variant of the Escherichia coli flagellin gene	NC002695	(8)	miscellaneous
<i>ibeA</i>	invasion of brain endothelium	AF289032	(4)	miscellaneous
<i>ompT</i>	Protease 7	41044	(8)	miscellaneous
<i>PAI(malX)</i>	pathogenicity islands (PAIs)	AF00372	(4)	miscellaneous
<i>cvi-cvaC</i>	colicin V immunity protein-colicin V synthesis protein	X57525	(18)	protectins
<i>iss</i>	increased serum survival protein	CP001855	(8)	protectins
<i>kpsMT (K1)</i>	K1 capsular polysaccharide	M57382.1	(4)	protectins
<i>kpsMT II</i>	group 2 capsular polysaccharide units	X53819.1	(4)	protectins
<i>kpsMT III</i>	Group III capsular polysaccharides	AF007777.1	(4)	protectins
<i>neuC</i>	UDP-N-acetylglucosamine (GlcNAc) 2-epimerase	M84026.1	(19)	protectins

<i>ompA</i>	outer membrane protein A	CP004009.1	(7)	protectins
<i>rfc</i>	Escherichia coli O antigen polymerase gene	U39042	(4)	protectins
<i>astA</i>	arginine succinyltransferase	AY545598	(10)	toxins
<i>cdtB</i>	cytolethal distending toxin protein	AJ508930	(20)	toxins
<i>cnf-1</i>	cytotoxic necrotizing factor	U42629	(4)	toxins
<i>hlyA</i>	hemolysin A	M10133	(21)	toxins
<i>hlyD</i>	hemolysin D	2128	(8)	toxins
<i>hlyE</i>	hemolysin E	AF052225	(22)	toxins
<i>hlyF</i>	hemolysin F	14615	-	toxins
<i>vat</i>	vacuolating autotransporter toxin	X16664	(23)	toxins

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