

Supplementary Table 1. Oligonucleotide primers and annealing temperature used in this study.

Function	Genes	Nucleotide sequence	Amplicon size (bp)	Annealing temp. (°C)	Reference
ESBL types	<i>bla_{CTX-M-1}</i> group	F GTTACAATGTGTGAGAAGCAG	1,041	60	(Jouini et al., 2007)
		R CCGTTTCCGCTATTACAAAC			
	<i>bla_{CTX-M-2}</i> group	F CGACGCTACCCCTGCTATT	832	60	
		R CAGAAACCGTGGGTACGAT			
	<i>bla_{CTX-M-8}</i> group	F GCGCTGGAGAAAAGCAG	862	60	
		R GGTTTTATCCCCGACAACC			
	<i>bla_{CTX-M-9}</i> group	F GTGACAAAGAGAGTGCAACGG	857	60	
		R ATGATTCTCGCCGCTGAAGCC			
	<i>bla_{CTX-M-25}</i> group	F GCACGATGACATTCCGGG	327	60	
		R AACCCACGATGTGGGTAGC			
	<i>bla_{CMY}</i>	F AACACACTGATTGCGTCTGAC	1,226	60	
		R CTGGGCCTCATCGTCAGTTA			
	<i>bla_{SHV}</i>	F TGCCTGTGTATTATCTCCC	768	54	
		R CGCAGATAAATCACCACAATG			
<i>bla_{TEM}</i>	F TCCGTCATGAGACAATAACC	1,057	58		
	R ACGCTCAGTGGAAACGAAAAC				
<i>bla_{OXA}</i>	F ACACAATACATCAACTTCGC	813	60		
	R AGTGTGTTTAGAATGGTGATC				
Phylogenetic group	<i>yjaA</i>	F CAAACGTGAAGTGTCAGGAG	288	55	(Clermont et al., 2013)
		R AATGCGTTCCTCAACCTGTG			
	<i>chuA</i>	F ATGGTACCGACGAACCAAC	211	55	
		R TGCCGCCAGTACCAAAGACA			
	<i>tspE4.C2</i>	F CACTATTTCGTAAGGTCATCC	152	55	
		R AGTTTATCGCTGCGGGTCCG			
	<i>AceK.f</i>	F AACGCTATTGCCAGCTTGC	400	55	
		R TCTCCCCATACCGTACGCTA			
	<i>ArpA1.r</i>	F GATTCCATCTTGTCAAAATATGCC	301	55	
		R GAAAAGAAAAAGAATCCCAAGAG			
	<i>ArpAgpE.f</i>	F AGTTTTATGCCAGTGGGAG	219	55	
		R TCTGCGCCGGTACGCCC			
	<i>trpAgpC.1</i>	F CGGCGATAAAGACATCTTCAC	489	55	
		R GCAACGCGGCCCTGGCGGAAG			
Virulence factors	<i>fimH</i>	F TGCAGAACGGATAAGCCGTGG	508	63	(Gonzalez Moreno et al., 2020)
		R GCAGTCACCTGCCCTCCGGTA			
	<i>iha</i>	F CTGGCGGAGGCTCTGAGATCA	827	55	
		R TCCTTAAGCTCCCGCGGCTGA			
	<i>papC</i>	F GTGGCAGTATGAGTAATGACCGTTA	200	63	
		R ATATCCTTCTGCAGGGATGCAATA			
	<i>csgA</i>	F ACTCTGACTTGAATATTACC	200	55	
		R AGATGCAGTCTGGTCAAC			
	<i>astA</i>	F TGCCATCAACACAGTATATCCG	102	65	
		R ACGGCTTTGTAGTCCTTCCAT			
	<i>hlyA</i>	F AACAAAGATAAGCACTGTTCTGGCT	1,176	63	
		R ACCATATAAGCGGTCATTCCCCTCA			
	<i>aat</i>	F CTGGCGAAAGACTGTATCAT	629	53	
		R CAATGTATAGAAATCCGCTGTT			
	<i>tsh</i>	F ACTATTCTCTGCAGGAAGTC	824	55	
		R CTCCGATGTTCTGAACGT			
	<i>pic</i>	F AGCCGTTTCCGCAGAAAGCC	1,111	63	
		R AAATGTCAGTGAACCGACGATTGG			
<i>traT</i>	F GGTGTGGTGGGATGAGCACAG	290	60		
	R CACGGTTCAGCCATCCCTGAG				
<i>ompT</i>	F ATCTAGCCGAAGAAGGAGGC	559	64		
	R				

		R	CCCGGGTCATAGTGTTTCATC			
	<i>fyuA</i>	F	TGATTAACCCCGCGACGGGAA	880	63	(Gonzalez Moreno et al., 2020)
		R	CGCAGTAGGCACGATGTTGTA			
	<i>iroNe.coli</i>	F	AAGTCAAAGCAGGGGTGCCCG	665	63	(Aazam et al., 2012)
		R	GACGCCGACATTAAGACGCAG			
Antimicrobial resistance	<i>catA</i>	F	AGTTGCTCAATGTACCTATAACC	547	57	(Saenz et al., 2004)
		R	TTGTAATTCATTAAGCATTCTGCC			
	<i>cmlA</i>	F	CCGCCACGGTGTGTTGTTATC	698	57	(Saenz et al., 2004)
		R	CACCTTGCCTGCCATCATTAG			
	<i>floR</i>	F	TATCTCCTGTCTGTTCCAG	399	52	(Saenz et al., 2004)
		R	AGAACTCGCCGATCAATG			
	<i>tetA</i>	F	GCTACATCCTGCTTGCCTTC	210	58	(Saenz et al., 2004)
		R	CATAGATCGCCGTGAAGAG			
	<i>tetB</i>	F	TTGGTTAGGGCAAGTTTTG	659	56	(Saenz et al., 2004)
		R	GTAATGGGCCAATAACACCG			
	<i>tetD</i>	F	AAACCATTACGGCATTCTGC	787	60	(Saenz et al., 2004)
		R	GACCGGATACACCATCCATC			
	<i>qnrA</i>	F	ATTTCTCA CGCCAGGATTTG	516	53	(Liao et al., 2015)
		R	GATCGGCAAAGGTTAGGTCA			
	<i>qnrB</i>	F	GATCGTGAAAGCCAGAAAGG	469	53	(Liao et al., 2015)
		R	ACGATGCCTGGTAGTTGTCC			
	<i>qnrC</i>	F	GGGTTGTACATTTATTGAATC	447	50	(Liao et al., 2015)
		R	TCCACTTTACGAGGTTCT			
	<i>qnrS</i>	F	ACGACATTCGTCAACTGCAA	417	53	(Liao et al., 2015)
		R	TAAATTGGCACCCGTAGGC			
	<i>aac(6)-Ib-cr</i>	F	TTGCGATGCTCTATGAGTGGCTA	482	50	(Liao et al., 2015)
		R	CTCGAATGCCTGGCGTGTTC			
	<i>aac(3)-I</i>	F	ACCTACTCCCAACATCAGCC	169	60	(Saenz et al., 2004)
		R	ATATAGATCTCACTACGCGC			
	<i>aac(3)-II</i>	F	ACTGTGATGGGATACGCGTC	237	60	(Saenz et al., 2004)
		R	CTCCGTCAGCGTTTCAGCTA			
	<i>aac(3)-IV</i>	F	CTTCAGGATGGCAAAGTTGGT	286	60	(Saenz et al., 2004)
		R	TCATCTCGTTCTCCGCTCAT			
	<i>dfrIa</i>	F	GTGAAACTATCACTAATGG	474	55	(Saenz et al., 2004)
		R	TTAACCCTTTTGCCAGATT			
	<i>dfrIb</i>	F	GAGCAGCTICTITTTAAAGC	393	60	(Saenz et al., 2004)
		R	TTAGCCCTTTIICCAATTTT			
<i>dfrII</i>	F	GATCACGTGCGCAAGAAATC	141	50	(Saenz et al., 2004)	
	R	AAGCGCAGCCACAGGATAAAT				
<i>dfrVII</i>	F	TTGAAAATTTCAATTGATT	474	55	(Saenz et al., 2004)	
	R	TTAGCCTTTTTTCCAAATCT				
<i>dfrXII</i>	F	GGTGS GCAGAAGATTTTTCGC	319	60	(Saenz et al., 2004)	
	R	TGGGAAGAAGGCGTACCCTC				
Replicon types	IncHI1	F	GGAGCGATGGATTACTTCAGTAC	471	60	(Carattoli et al., 2005)
		R	TGCCGTTTCACCTCGTGAGTA			
	IncHI2	F	TTTCTCCTGAGTCACCTGTTAAACAC	644	60	(Carattoli et al., 2005)
		R	GGCTCACTACCGTTGTCATCCT			
	IncII-ly	F	CGAAAAGCCGGACGGCAGAA	139	60	(Carattoli et al., 2005)
		R	TCGTCTGTTCCGCCAAGTTCGT			
	IncI2	F	CTGTGCGCATGTCTGTCTC	553	55	(Lv et al., 2013)
		R	CTGGCTACCAGTTGCTCTAA			
	IncX1	F	GCTTAGACTTGTGTTTATCGTT	461	62	(Johnson et al., 2012)
		R	TAATGATCCTCAGCATGTGAT			
	IncX2	F	GCGAAGAAATCAAAGAAGCTA	678	63	(Johnson et al., 2012)
		R	TGTTGAATGCCGTTCTTGTCCAG			
	IncX3	F	GTTTTCTCCACGCCCTTGTTCA	351	63	(Johnson et al., 2012)
		R	CTTTGTGCTTGGCTATCATAA			
	IncX4	F	AGCAAACAGGGAAAGGAGAAGACT	569	62	(Johnson et al., 2012)
		R	TACCCCAAATCGTAACCTG			
IncL/M	F	GGATGAAAATATCAGCATCTGAAG	785	60	(Carattoli et al., 2005)	

	R	CTGCAGGGGCGATTCTTTAGG			
IncFIA	F	CCATGCTGGTTCTAGAGAAGGTG	462	60	(Carattoli et al., 2005)
	R	GTATATCCTTACTGGCTTCCGCAG			
IncFIB	F	GGAGTTCTGACACACGATTTTCTG	702	63	(Carattoli et al., 2005)
	R	CTCCCGTCGCTTCAGGGCATT			
IncFIC	F	GTGAACTGGCAGATGAGGAAGG	262	60	(Carattoli et al., 2005)
	R	TTCTCCTCGTCGCCAAACTAGAT			
IncFIIs	F	CTGTGTAAGCTGATGGC	270	60	(Carattoli et al., 2005)
	R	CTCTGCCACAACTTCAGC			
IncA/C	F	GAGAACCAAAGACAAAGACCTGGA	465	60	(Carattoli et al., 2005)
	R	ACGACAAACCTGAATTGCCTCCTT			
IncP	F	CTATGGCCCTGCAAACGCGCCAGAAA	534	60	(Carattoli et al., 2005)
	R	TCACGCGCCAGGGCGCAGCC			
IncK	F	GCGGTCCGGAAAGCCAGAAAAC	160	60	(Carattoli et al., 2005)
	R	TCTTTCACGAGCCCGCCAAA			
IncB/O	F	GCGGTCCGGAAAGCCAGAAAAC	159	60	(Carattoli et al., 2005)
	R	TCTGCGTTCCGCCAAGTTCGA			
IncN	F	GTCTAACGAGCTTACCGAAG	559	55	(Carattoli et al., 2005)
	R	GTTTCAACTCTGCCAAGTTC			

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