

Supplementary Table S1. List of primers used in this study.

Genes	Primer name	Primer sequence (5' to 3')	Product size	Temperature	Reference
<u>Resistance</u>					
<i>bla</i> _{OXA-48}	OXAC-G48F	TGTRTTAGCCTTATCGGC	678 bp	55 °C	This study
	OXAC-G48R	TCYAGTTCAACCCAACCG			
<i>bla</i> _{KPC}	KPCn-F	CTGTCTTGTCTCTCATGG	784 bp	55 °C	Modified from (1)
	KPCn-R	TGTCATCCTTGTTAGGCG			
<i>bla</i> _{IMI}	IMIn-F	ACAGGCCAATACAAAGGG	606 bp	55 °C	This study
	IMIn-R	TACGCTAGCACGAATACG			
<i>bla</i> _{NDM}	NDM-F	GGCCGTATGAGTGATTGC	775 bp	55 °C	This study
	NDM-R	TATTATGCACCCGGTCGC			
<i>bla</i> _{IMP}	IMP-F	ATAGRGTGGCTTAATTCTC	230 bp	55 °C	Modified from (2)
	IMP-R	GGTTTAARAAAACAACCACC			
<i>bla</i> _{VIM}	VIM-G2F	TGGTCGCATATCGCAACG	500 bp	55 °C	Modified from (2)
	VIM-G2R	GGCCATTGAGCCAGATCG			
<i>bla</i> _{TEM}	TEM-P3	AGTGTCGACTTACCAATGCTTAATCAGT	942bp	55 °C	(3)
	TEM-P4	AAAGAATTCTAAATACATTCAAATATG			
<i>bla</i> _{SHV}	SHV-A	CGCCGGGTTATTCTTATTTGTCGC	1017 bp	60 °C	(4)
	SHV-B	TCTTTCCGATGCCGCCGCCAGTCA			
<i>bla</i> _{CTX-M}	CTX-M-G1F	AAAAATCACTGCGCCAGTTC	415 bp	52 °C	(5)
	CTX-M-G1R	AGCTTATTCATCGCCACGTT			
	CTX-M-G2F	TTT GCG ATG TGC AGT ACC AGT AA	391 bp	52 °C	(5)
	CTX-M-G2R	CCA GCG TCA GAT TTT TCA GG			
	CTX-M-G9F	CAA AGA GAG TGC AAC GGA TG	205 bp	52 °C	(5)

<i>aac(6')-Ib</i>	CTX-M-G9R Aac6-Ib-F Aac6-Ib-R	ATT GGA AAG CGT TCA TCA CC TGCGATGCTCTATGAGTGGCTA CTCGAATGCCTGGCGTGT	481 bp	55 °C	This study
<i>qnrA</i>	QnrA-F QnrA-R	CTAATCCGGCAGCACTATTA GGGTATGGATATTATTGATAAAG	661 bp	55 °C	(6)
<i>qnrB</i>	QnrB-F QnrB-R	GGCACTGAATTTATCGGC TCCGAATTGGTCAGATCG	431 bp	55 °C	(7)
<i>qnrS</i>	QnrS-F QnrS-R	CCTACAATCATACATATCGGC GCTTCGAGAATCAGTTCTTGC	621bp	55 °C	(7)
<u>Virulence (Klebsiella)</u>					
<i>fimH</i>	fim-1 fim-2	GCT CTG GCC GAT AC(C/T) AC(C/G) ACG G GC(G/A) (A/T)A (G/A)T AAC G(T/C) GCC TGG AAC GG	423 bp	55 °C	(8)
<i>mrkD</i>	mrkD-1 mrkD-2	TAT (T/C)G(G/T) CTT AAT GGC GCT GG TAA TCG TAC GTC AGG TTA AAG A(C/T)C	920 bp	50 °C	(8)
<i>wabG</i>	wabG-F wabG-R	CGG ACT GGC AGA TCC ATA TC ACC ATC GGC CAT TTG ATA GA	683 bp	53 °C	(8)
<i>uge</i>	uge-F uge-R	GAT CAT CCG GTC TCC CTG TA TCT TCA CGC CTT CCT TCA CT	534 bp	53 °C	(9)
<i>ureA</i>	ureA-F ureA-R	GCT GAC TTA AGA GAA CGT TAT G GAT CAT GGC GCT ACC T(C/T) A	337 bp	55 °C	(8)
<i>rmpA</i>	rmpA-F rmpA-R	ACT GGG CTA CCT CTG CTT CA CTT GCA TGA GCC ATC TTT CA	535 bp	46 °C	(8)
<i>magA</i>	magA-F magA-R	GGT GCT CTT TAC ATC ATT GC GCA ATG GCC ATT TGC GTT AG	1283 bp	50 °C	(10)
<i>wzy</i>	wzy-F wzy-R	GACCCGATATTCATACTTGACAGAG CCTGAAGTAAAATCGTAAATAGATGGC	641 bp	55 °C	(11)

<i>kfuBC</i>	kfuB-F1179	GAA GTG ACG CTG TTT CTG GC	797 bp	55 °C	(12)
	kfuC-R649	TTT CGT GTG GCC AGT GAC TC			
<i>clbB</i>	clbB-F	GATTTGGATACTGGCGATAACCG	579 bp	55 °C	(13)
	clbB-R	CCATTTCCCGTTTGAGCACAC			
<i>clbN</i>	clbN-F	GTTTTTGCTCGCCAGATAGTCATTC	733 bp	55 °C	(13)
	clbN-R	CAGTTCGGGTATGTGTGGAAGG			
<i>allS</i>	1416R	CCG TTA GGC AAT CCA GAC	1090 bp	49 °C	(14)
	336F2	TCT GAT TTA (A/T)CC CAC ATT			
<u>Plasmid addiction systems</u>					
<i>pemK</i>	PemK-up	AAC GAG AAT GGC TGG ATG C	232 bp	54 °C	(15)
	PemK-low	CCA ACG ACA CCG CAA AGC			
<i>ccdAB</i>	CcdA-up	AGG AAG GGA TGG CTG AGG T	230 bp	54 °C	(15)
	CcdB-low	GGT AAA GTT CAC GGG AGA C			
<i>relE</i>	RelE-up	AAA AAC CCG ATG GCG ACA G	370 bp	57 °C	(15)
	RelE-low	TGA TAG ACC AGG CGA AAA C			
<i>parDE</i>	ParD-up	ACG GAC CAG CAG CAC CAG	534 bp	58 °C	(15)
	ParE-low	AGC CCT TGA GCC TGT CGG			
<i>vagCD</i>	VagC-up	GGG ACC TGG ATT TTG ATG G	210 bp	53 °C	(15)
	VagD-low	GAG CAG ATG TTG GTG TCG			
<i>hok-sok</i>	Hok-up	AGA TAG CCC CGT AGT AAG TT	203 bp	54 °C	(15)
	Sok-low	GAT TTT CGT GTC AGA TAA GTG			
<i>pndCA</i>	PndC-up	TCA ATC AAC CAG GGC TCT	140 bp	52 °C	(15)
	PndA-low	CCT CAC CAT CCA GAC AAA A			
<i>srnBC</i>	SrnB-up	ACT GAT TGT AGC CTC TTC TTT	171 bp	54 °C	(15)
	SrnC-low	CAC CAC TGT ATT TCC CCT GT			
<u>Plasmid partition systems</u>					

ParMRC-F	GGTTTCTTTCGTCAGCAGCTCACA	1081bp	55 °C	This study
ParMRC-R	CCGAACAGCTTCAAACGCGAGT			
SopAB-F	GGCACAGCCTCGATGTATCAC	1232bp	55 °C	This study
SopAB-R	GGCTTGTATAACGCAGGCCA			
ParAB-F	GCTCCGACTGAACCGGGAA	1738bp	55 °C	This study
ParAB-R	GCGAAAGTATCCGACAGCAA			

References:

1. Poirel L, Walsh TR, Cuvillier V, Nordmann P. Multiplex PCR for detection of acquired carbapenemase genes. *Diagn Microbiol Infect Dis*. 2011 May;70(1):119–23.
2. Balsalobre LC, Dropa M, Lincopan N, Mamizuka EM, Matté GR, Matté MH. Detection of metallo- β -lactamases-encoding genes in environmental isolates of *Aeromonas hydrophila* and *Aeromonas jandaei*. *Lett Appl Microbiol*. 2009 Jul;49(1):142–5.
3. Sabaté M, Miró E, Navarro F, Vergés C, Aliaga R, Mirelis B, et al. β -lactamases involved in resistance to broad-spectrum cephalosporins in *Escherichia coli* and *Klebsiella* spp. clinical isolates collected between 1994 and 1996, in Barcelona (Spain). *J Antimicrob Chemother*. 2002;49:989–97.
4. Tracz DM. Increase in ampC promoter strength due to mutations and deletion of the attenuator in a clinical isolate of cefoxitin-resistant *Escherichia coli* as determined by RT-PCR. *J Antimicrob Chemother*. 2005 Apr 8;55(5):768–72.
5. Woodford N, Fagan EH, Ellington MJ. Multiplex PCR for rapid detection of genes encoding CTX-M extended-spectrum β -lactamases. *J Antimicrob Chemother*. 2005 Nov 24;57(1):154–5.
6. Wang M, Sahm DF, Jacoby GA, Hooper DC. Emerging Plasmid-Mediated Quinolone Resistance Associated with the qnr Gene in *Klebsiella pneumoniae* Clinical Isolates in the United States. *Antimicrob Agents Chemother*. 2004 Apr 1;48(4):1295–9.

7. Lavilla S, Gonzalez-Lopez JJ, Sabate M, Garcia-Fernandez A, Larrosa MN, Bartolome RM, et al. Prevalence of qnr genes among extended-spectrum -lactamase-producing enterobacterial isolates in Barcelona, Spain. *J Antimicrob Chemother*. 2008;61(2):291–5.
8. Brisse S, Fevre C, Passet V, Issenhuth-Jeanjean S, Tournebize R, Diancourt L, et al. Virulent Clones of *Klebsiella pneumoniae*: Identification and Evolutionary Scenario Based on Genomic and Phenotypic Characterization. Neyrolles O, editor. *PLoS ONE*. 2009 Mar 25;4(3):e4982.
9. Regue M, Hita B, Pique N, Izquierdo L, Merino S, Fresno S, et al. A Gene, *uge*, Is Essential for *Klebsiella pneumoniae* Virulence. *Infect Immun*. 2004 Jan 1;72(1):54–61.
10. Fang C-T, Chuang Y-P, Shun C-T, Chang S-C, Wang J-T. A Novel Virulence Gene in *Klebsiella pneumoniae* Strains Causing Primary Liver Abscess and Septic Metastatic Complications. *J Exp Med*. 2004 Mar 1;199(5):697–705.
11. Turton JF, Baklan H, Siu LK, Kaufmann ME, Pitt TL. Evaluation of a multiplex PCR for detection of serotypes K1, K2 and K5 in *Klebsiella* sp. and comparison of isolates within these serotypes. *FEMS Microbiol Lett*. 2008 Jul;284(2):247–52.
12. Ma L-C, Fang C-T, Lee C-Z, Shun C-T, Wang J-T. Genomic Heterogeneity in *Klebsiella pneumoniae* Strains Is Associated with Primary Pyogenic Liver Abscess and Metastatic Infection. *J Infect Dis*. 2005;192:117–28.
13. Johnson JR, Johnston B, Kuskowski MA, Nougayrede J-P, Oswald E. Molecular Epidemiology and Phylogenetic Distribution of the *Escherichia coli* pks Genomic Island. *J Clin Microbiol*. 2008 Dec 1;46(12):3906–11.
14. Chou H-C, Lee C-Z, Ma L-C, Fang C-T, Chang S-C, Wang J-T. Isolation of a Chromosomal Region of *Klebsiella pneumoniae* Associated with Allantoin Metabolism and Liver Infection. *Infect Immun*. 2004 Jul 1;72(7):3783–92.
15. Mnif B, Vimont S, Boyd A, Bourit E, Picard B, Branger C, et al. Molecular characterization of addiction systems of plasmids encoding extended-spectrum -lactamases in *Escherichia coli*. *J Antimicrob Chemother*. 2010 Aug 1;65(8):1599–603.