

Supplementary Files

Virulence genes		Primer Sequence	Amplicon size (bp)
Adhesion			
Type 3 Adhesin	<i>mrkD1</i>	F: TTCTGCACAGCGGTCCC R: GATACCCGGCGTTTTCGTTAC	240
Type 3 Adhesin	<i>mrkD2</i>	F: AAGCTATCGCTGTACTTCCGGCA R: GCGTTGGCGCTCAGATAGG	340
Type 1 Adhesin	<i>fimH</i>	F: TGCTGCTGGGCTGGTCGATG R: GGGAGGGTGACGGTGACATC	550
FimH like Adhesin	<i>kpn</i>	F: GTATGACTCGGGGAAGATTA R: CAGAAGCAGCCACCACACG	626
Iron Acquisition (Siderophores)			
Enterobactin	<i>entB</i>	F: ATTTCCTCAACTTCTGGGGC R: AGCATCGGTGGCGGTGGTCA	371
Enterobactin	<i>entB1</i>	F: GTCAACTGGGCCTTTGAGCCGTC R: TATGGGCGTAAACGCCGGTGAT	400
Ferric Aerobactin Receptor	<i>iutA</i>	F: GGGAAAGGCTTCTCTGCCAT R: TTATTCGCCACCACGCTCTT	920
Ferric Aerobactin Receptor	<i>iutA1</i>	F: GGCTGGACATCATGGGAAGTGG R: CGTCGGGAACGGGTAGAATCG	300
Aerobactin	<i>aerobactin</i>	F: GCATAGGCGGATACGAACAT R: CACAGGGCAATTGCTTACCT	556
Aerobactin	<i>iucB</i>	F: ATGTCTAAGGCAAACATCGT R: TTACAGACCGACCTCCGTGA	948
Yersiniabactin	<i>ybtA</i>	F: ATGACGGAGTCACCGCAAAC R: TTACATCACGCGTTTAAAGG	960
Yersiniabactin	<i>ybtS</i>	F: GACGGAACAGCACGGTAAA R: GAGCATAATAAGGCGAAAGA	242
Salmochelate Catechol Receptor	<i>iroN</i>	F: AAGTCAAAGCAGGGTTGCCCCG R: GACGCCGACATTAAGACGCAG	665
Salmochelate Catechol Receptor	<i>iroNB</i>	F: GGCTACTGATACTTGACTATTC R: CAGGATACAATAGCCCATAG	992
Iron Uptake Systems			
<i>Klebsiella</i> Ferric Iron Uptake	<i>kfu</i>	F: GGCCTTTGTCCAGAGCTACG R: GGGTCTGGCGCAGAGTATGC	638
<i>Klebsiella</i> Ferric Iron Uptake	<i>kfuBC</i>	F: GAAGTGACGCTGTTTCTGGC R: TTTCGTGTGGCCAGTGACTC	797
Genotoxins			
Colibactin	<i>ClbB</i>	F: GATTGGATACTGGCGATAACCG R: CCATTTCCTGTTGAGCACAC	579
Haemolysin	<i>hlyA</i>	F: AACAAGGATAAGCACTGTTCTGGCT R: ACCATATAAGCGGTCATTCCCGTCA	1177
Cytotoxic Necrotising Factor	<i>cnf</i>	F: AAGATGGAGTTTCTATGCAGGAG R: CATTGAGTCTGCGCTCATTATT	498

Capsule synthesis

K2 serotype capsule synthesis	<i>k2A</i>	F: CAACCATGGTGGTCGATTAG	531
		R: TGGTAGCCATATCCCTTTGG	
Fucose synthesis for capsule	<i>wcaG</i>	F: GGTGGKTCAGCAATCGTA	169
		R: ACTATCCGCCAACTTTTGC	
Lipid Polysaccharide (LPS) Biosynthesis	<i>wabG</i>	F: ACCATCGGCCATTTGATAGA	683
		R: CGGACTGGCAGATCCCATATC	
Outer Membrane Lipoprotein	<i>ycfM</i>	F: ATCAGCAGTCGGGTCAGC	160
		R: CTTCTCCAGCATTACAGCG	
Uridine diphosphategalacturona te4-epimerase	<i>uge</i>	F: TCTTCACGCCTTCCTTCACT	535
		R: GATCATCCGGTCTCCCTGTA	
Regulator Mucoid Phenotype A	<i>rmpA1</i>	F: ACTGGGCTACCTCTGCTTCA	536
		R: CTTGCATGAGCCATCTTTCA	
Regulator Mucoid Phenotype A	<i>rmpA2</i>	F: CATAAGAGTATTGGTTGACAG	461
		R: CTTGCATGAGCCATCTTTCA	
Urease synthesis	<i>ureA</i>	F: GCTGACTTAAGAGAACGTTATG	337
		R: GATCATGGCGCTACCT(C/T)A	
Allantoin Metabolism	<i>allS</i>	CCGAAACATTACGCACCTTT	508
		ATCACGAAGAGCCAGGTCAC	
Allantoin Metabolism	<i>allS2</i>	CATTACGCACCTTTGTCAGC	764
		GAATGTGTGCGCGATCAGCTT	

Capsular Polysaccharide

Universal <i>K. pneumoniae</i>	<i>K. pneumoniae</i> Pr1	F: TTCACTCTGAAGTTTTCTTGTGTTTC	130
	<i>K. pneumoniae</i> Pf	R: ATTTGAAGAGGTTGCAAACGAT	
K1 Serotype	<i>K1-magA</i>	F: GGTGCTCTTTACATCATTGC	1283
		R: GCAATGGCCATTTGCGTTAG	
K2 Serotype	<i>K2wzy</i>	F: GACCCGATATTCATACTTGACAGAG	641
		R: CCTGAAGTAAAATCGTAAATAGATGGC	
K5 Serotype	<i>K5wzx</i>	F: TGGTAGTGATGCTCGCGA	280
		R: CCTGAACCCACCCCAATC	
K20 Serotype	<i>wzyK20</i>	F: CGGTGCTACAGTGCATCATT	741
		R: GTTATACGATGCTCAGTCGC	
K54 Serotype	<i>wzxK54</i>	F: CATTAGCTCAGTGGTTGGCT	881
		R: GCTTGACAAACACCATAGCAG	
K57 Serotype	<i>wzyK57</i>	F: CTCAGGGCTAGAAGTGTCAT	1037
		R: CACTAACCCAGAAAGTCGAG	

Carbapenem Resistance

KPC	<i>blaKPC</i>	F: CGTCTAGTTCTGCTGTCTTG	798
		R: CTTGTCATCCTTGTTAGGCG	
NDM-1	<i>blaNDM-1</i>	F: GGTITGGCGATCTGGTTTC	621
		R: CGGAATGGCTCATCACGATC	
OXA-48	<i>blaOXA-48</i>	F: GCGTGGTTAAGGATGAACAC	438
		R: CATCAAGTTCAACCCAACC	
IMP	<i>blaIMP</i>	F: GGAATAGAGTGGCTTAAYTCTC	232
		R: GGTTTAAYAAAACAACCACC	
VIM	<i>blaVIM</i>	F: GATGGTGTTTGGTCGCATA	390
		R: CGAATGCGCAGCACCAG	

Supplementary S1: List of Primers used in this study

Virulence genes	PKS-positive (n=10)		PKS-negative (n=30)		Total
	CRC	Non-CRC	CRC	Non-CRC	
Colibactin	3	7	12	18	40
Hly	0	1	1	0	2
cnf-1	3	0	2	2	7
K1 serotype	3	0	0	0	3
K2 serotype	0	5	1	0	6
K5 serotype	0	1	0	2	3
K20 serotype	0	0	0	0	0
K54 serotype	0	0	0	0	0
K57 serotype	0	0	0	2	2
Unknown	0	1	11	14	26
blaKPC	0	0	0	0	0
blaNDM-1	0	0	0	0	0
blaOXA-48	0	0	1	2	3
blaIMP	0	0	0	0	0
blaVIM	0	0	0	0	0
kzA	0	3	0	0	3
wcaG	3	1	8	2	14
wabG	3	6	6	13	28
ycfM	3	6	5	12	26
Uge	3	6	11	13	33
rmpA-1	3	1	2	1	7
rmpA-2	3	2	3	3	11
urea	3	6	12	18	39
allS	3	1	4	1	9
allS-2	3	0	3	0	6

Kfu	3	0	8	7	18
kfuBC	3	0	7	4	14
entB	3	6	6	13	28
entB1	3	6	9	18	36
iutA	3	5	3	4	15
iutA1	3	6	2	4	15
Aerobactin	3	6	6	10	25
lucB	3	6	3	4	16
ybtA	3	4	2	4	13
ybtS	3	7	3	6	19
iroN	0	0	1	2	3
iroNB	0	1	2	2	5
mrkD-1	0	0	0	0	0
mrkD-2	3	6	12	16	37
fimH	3	6	8	17	34
Kpn	0	7	6	11	24

Supplementary S2: Prevalence of virulence genes among *K. pneumoniae* clinical isolates.

