

Supplementary Table S1. Unique virulence factors genes detected in the genome of *K. pneumoniae* LABACER 01 compared to strains LABACER 27, NTUH-K2044, ATCC43816, and RFJ293.

Gen	Protein
<i>ompC</i>	Outer membrane porin C. One of the major outer membrane proteins
<i>fimC1</i>	Chaperone involved in fimbriae biosynthesis
<i>sfaG1</i>	S-type adhesins, which allow bacteria to adhere to eukaryotic cells
<i>smfA</i>	Fimbrial protein A involved in adhesion
<i>hemN</i>	S-adenosyl-1-methionine enzyme
<i>gltB</i>	B subunit that is part of the heterodimeric protein glutamate synthetase
<i>papH</i>	P pili protein subunits
<i>papC</i>	Outer membrane protein that allows assembly and secretion of pili
<i>yfcS</i>	Fimbrial chaperone protein encoded in the yfc operon
<i>yfcR</i>	Fimbrial chaperone protein encoded in the yfc operon
<i>cbtA</i>	Toxin of the CbtA-CbeA toxin-antitoxin system. CbtA directly interacts with the cell division proteins FtsZ and MreB and inhibits GTPase activity and GTP-dependent polymerization of FtsZ, as well as ATP-dependent polymerization of MreB
<i>cbeA</i>	cbeA encodes antitoxin protein that prevents the binding of the toxic protein cbtA (neutralizes the toxic effect of cbtA)
<i>cyoA</i>	The operon synthesizes subunit II that is part of the ubiquinol oxidase complex
<i>cyoB</i>	The operon synthesizes the I subunit that is part of the ubiquinol oxidase complex
<i>tamA</i>	It synthesizes a protein that, together with tamB, is inserted into the outer membrane
<i>tamB</i>	Synthesizes a protein that, together with tamA, is inserted into the outer membrane

Supplementary Table S2. Unique virulence factors genes detected in the genome of *K. pneumoniae* LABACER 27 compared to strains LABACER 01, NTUH-K2044, ATCC43816, and RFJ293.

Gen	Protein
<i>vapB</i>	The vapBC operon encodes the type II toxin/antitoxin system. vapB produces the DNA gyrase inhibitory toxin
<i>traA</i>	<i>It belongs to the tra operon, which synthesizes the relaxase enzyme, this is an endonuclease/topoisomerase that recognizes the oriT sequence</i>
<i>bigR</i>	Synthesizes repressor protein associated with persulfide-sensitive biofilm growth
<i>bfpA</i>	It is found within the bfp operon, and encodes for the protein that is responsible for localized adhesion in epithelial cells
<i>higA</i>	It is the antitoxin of HigB translation-dependent interferase mRNA toxin
<i>rfaH</i>	It controls the transcription of a specialized group of operons that direct the synthesis, assembly, and export of exopolysaccharides, F conjugation pilus, and hemolysin
<i>copA</i>	It synthesizes the carrier protein that removes the Cu cation from the bacteria and prevents its accumulation and its bactericidal effect
<i>aroE</i>	Protein involved in serum resistance
<i>purH</i>	Synthesizes the bifunctional enzyme PurH responsible for a step in the purine biosynthetic pathway
<i>yadV2</i>	Yad pili chaperone proteins, involved in adhesion to the epithelium of the bladder
<i>yadV3</i>	
<i>sfmC</i>	It is part of the sfm operon that produces fimbrial surface structures. sfmC has chaperone activity
<i>sfmD</i>	It is part of the sfm operon that produces fimbrial surface structures. sfmD has chaperone activity.

Supplementary Table S3. *Klebsiella* strains with complete genomes sequenced used in this thesis work.

Strain	Capsular type	Accession number
<i>Kp</i> 1088	KL1	NJPF000000000
<i>Kp</i> 1	KL47	NJPM000000000
<i>Kp</i> NUHL24835	KL2	CP014004
<i>Kp</i> KP28872	KL149	JABFQQ000000000
<i>Kp</i> KP28873	KL149	JABFQR000000000
<i>Kp</i> 2	KL47	NJPL000000000
<i>Kp</i> 3	KL47	NJPK000000000
<i>Kp</i> 5	KL47	NJPJ000000000
<i>Kp</i> 7	KL47	NJPI000000000
<i>Kp</i> B1647	KL51	MCFO000000000
<i>Kp</i> B20038	KL30	MCFP000000000
<i>Kp</i> B20143	KL24	MCFQ000000000
<i>Kp</i> B5055	KL2	AQCG000000000
<i>Kp</i> BJ1-GA	KL2	CBTU000000000
<i>Kp</i> NTUH-K2044	KL1	AP006725.1
<i>Kp</i> RJA166	KL1	CP019047
<i>Kp</i> RJF293	KL2	CP014008
<i>Kp</i> SA1	KL2	CBTW000000000
<i>Kp</i> SH-1	KL47	PJPG000000000
<i>Kp</i> SWU01	KL47	CP018454
<i>Kp</i> T69	KL2	CBTV000000000
<i>Kp</i> TK421	KL20	CP045694
<i>Kp</i> Kp_whw	KL5	CAGKKT01
<i>Kq</i> A708	KL23	
<i>Kq</i> KqPF26	KL56	CP065838
<i>Kv</i> 8917	KL114	CP063403
<i>Kv</i> AT-22	KL134	CP001891

<i>Kv</i> FH-1	KL57	CP054254
<i>Kp</i> LABACER 01	KL118	JABXNY000000000
<i>Kp</i> LABACER 27	KL10	JABXNZ010000000

---