

## Supplementary Information

**Table S1.** Primers used for the genus and species conformation of *K. pneumoniae*

| Primer       | Target                       | Sequence (5'-3')  | Product size (bp) | Reference                    |
|--------------|------------------------------|---|-------------------|------------------------------|
| <i>Kpnm</i>  | 16S-23S rDNA<br>(ITS) region | F- ATTTGAAGAGGTTGCAAACGA<br>R-TTCACTCTGAAGTTTTCTTGTTTC  | 130               | (Liu et al.<br>2008)         |
| <i>KgyrA</i> | <i>gyrA</i>                  | F-CGCGTACTATACGCCATGAACGTA<br>R- ACCGTTGATCACTTCGGTCAGG | 536               | (Brisse and<br>Verhoef 2001) |

**Table S2.** Primers used for the detection of antibiotic resistance determinants

| Gene                       | Sequence (5'-3')  | Product size (bp) | Reference               |
|----------------------------|---|-------------------|-------------------------|
| <i>bla<sub>SHV</sub></i>   | F- ATG CGT TAT ATT CGC CTG TG<br>R- GTT AGC GTT GCC AGT GCT CG      | 865               | (Yigit et al. 2008)     |
| <i>bla<sub>TEM</sub></i>   | F- TCG GGG AAA TGT GCG CG<br>R- TGC TTA ATC AGT GAG GCA CC          | 972               | (Mahrouki et al. 2012)  |
| <i>bla<sub>CTX-M</sub></i> | F- CGA TGT GCA GTA CCA GTA A<br>R- TTA GTG ACC AGA ATC AGC GG       | 585               | (Batchelor et al. 2005) |
| <i>catA1</i>               | F- CTT GTC GCC TTG CGT ATA AT<br>R- ATC CCA ATG GCA TCG TAA AG      | 550               | (Zhao et al. 2001)      |
| <i>qnrB</i>                | F- GAT CGT GAA AGC CAG AAA GG<br>R- ACG ATG CCT GGT AGT TGT CC      | 469               |                         |
| <i>qnrS</i>                | F- ACG ACA TTC GTC AAC TGC AA<br>R- TAA ATT GGC ACC CTG TAG GC      | 417               | (Robicsek et al. 2006)  |
| <i>qnrA</i>                | F-ATT TCT CAC GCC AGG ATT TG<br>R-GAT CGC AAA GGT TAG GTC A         | 516               |                         |
| <i>tetB</i>                | F-CAG TGC TGT TGT TGT CTT AA<br>R-GCT TGG AAT ACT GAG TGT TAA       | 550               | (Ma et al. 2007)        |
| <i>tetG</i>                | F-GCT CGG TGG TAT CTC TGC TC<br>R-CAA AGC CCC TTG CTT GTT AC        |                   |                         |
| <i>sul1</i>                | F-TTT CCT GAC CCT GCG CTC TAT<br>R-GTG CGG ACG TAG TCA GCG CCA      | 425               |                         |
| <i>sul2</i>                | F-CCT GTT TCG TCC GAC ACA CAG A<br>R-GAA GCG CAG CAG CCG CAA TTC AT | 435               |                         |

**Table S3.** List of primers used to assess the virulence genes in the study

| Gene            | Sequence (5'-3')   | Product size | Reference               |
|-----------------|--|--------------|-------------------------|
| <i>uge</i>      | F- GAT CAT CCG GTC TCC CTG TA<br>R-TCT TCA CGC CTT CCT TCA CT  | 534          | (Brisse et al. 2009)    |
| <i>ureA</i>     | F- GCT GAC TTA AGA GAA CGT TAT G<br>R- GAT CAT GGC GCT ACC TTA | 428          |                         |
| <i>khe</i>      | F- TGA TTG CAT TCG CCA CTG G<br>R- GGT CAA CCC AAC GAT CCT G   | 337          | (Neuberger et al.2008)  |
| <i>wabG</i>     | F-CGG ACT GGC AGA TCC ATA TC<br>R-ACC ATC GGC CAT TTG ATA GA   | 700          | (Izquierdo et al. 2003) |
| <i>kfu</i>      | F-GAA GTG ACG CTG TTT CTG GC<br>R-TTT CGT GTG GCC AGT GAC TC   | 350          | (Yu et al. 2008)        |
| <i>elt-ETEC</i> | F-CTC GGT CAG ATA TGG ATT CTT<br>R-AAC ATT TCA GGT CGA AGT CC  | 700          | (Duong et al. 2020)     |
| <i>bfpA</i>     | F-AAT GGT GCT TGC GCT TGC TGC<br>R-GCC GCT TTA TCC AAC CTG GTA | 650          | (Gunzburg et al. 1995)  |

**Table S4.** Primers targeting the biofilm-related genes in *K. pneumoniae*

| Primer      | Sequence (5'-3')   | Amplicon size | Reference              |
|-------------|--|---------------|------------------------|
| <i>fimH</i> | F- GTG GTG CCG GAG AGG TAA TA<br>R- TGG AAC ATT TAC GCC AAC AA | 167           | (Priyanka et al. 2022) |
| <i>mrkA</i> | F- CAT CCA GCT GGT GCT GTC TA<br>R- TCG CGT AGC TGT TAA CCA CA | 166           |                        |
| <i>mrkD</i> | F- GCC AAC ATT AGC ACC TCG TT<br>R- GGC CGA CGG TGT ATT TCT TA | 191           |                        |
| <i>rpoA</i> | F- CGAGCTTGCTTTGATGAGTG<br>R- AGTCCCACAGGAAAACCTA              | 109           | (Ritz et al. 2009)     |