

# *mcr-1* Colistin Resistance in ESBL-Producing *Klebsiella pneumoniae*, France

## Technical Appendix

### Sequencing of the *Klebsiella pneumoniae* Strain Genome and Plasmid Carrying the *mcr-1* Gene

We used a whole-genome sequencing method (Illumina, San Diego, CA, USA) with 50-bp paired and 60× coverage. Gaps in the plasmid carrying the *mcr-1* gene were filled by using PCR and Sanger sequencing.

### Characteristics of the SHV-106 Plasmid

Whole-genome sequencing identified a 57-kb plasmid that belonged to incompatibility group IncR and carried the *bla<sub>SHV-106</sub>* gene. Genomic data were confirmed by extraction of plasmids according to the method of Kado and Liu (1) and hybridization with SHV and IncR probes.

### Antimicrobial Drug Susceptibilities of the *K. pneumoniae* Strain

Antimicrobial drug susceptibilities were determined by using the BD Phoenix Instrument (Becton Dickinson, Franklin Lakes, NJ, USA). The strain showed susceptibility to amoxicillin/clavulanate (MIC 8/2 mg/L), piperacillin/tazobactam ( $\leq 4/4$  mg/L), temocillin (8 mg/L), cefoxitin ( $\leq 4$  mg/L), cefepime ( $\leq 1$  mg/L), aztreonam ( $\leq 1$  mg/L), ertapenem ( $\leq 0.25$  mg/L), imipenem ( $\leq 0.25$  mg/L), meropenem ( $\leq 0.125$  mg/L), amikacin ( $\leq 4$  mg/L), tigecycline (1 mg/L), and fosfomicin (32 mg/L); intermediate susceptibility to ticarcillin/clavulanate (16/2 mg/L) and ceftazidime (2 mg/L); and resistance to ampicillin ( $> 8$  mg/L), piperacillin ( $> 64$  mg/L), ceftriaxone (4 mg/L), tobramycin ( $> 4$  mg/L), gentamicin ( $> 4$  mg/L), nalidixic acid ( $> 16$  mg/L), ciprofloxacin ( $> 1$  mg/L), levofloxacin ( $> 2$  mg/L), norfloxacin ( $> 2$  mg/L), colistin ( $> 4$  mg/L), and trimethoprim/sulfamethoxazole ( $> 4/76$  mg/L).

## Reference

1. Kado CI, Liu ST. Rapid procedure for detection and isolation of large and small plasmids. J Bacteriol. 1981;145:1365–73. [PubMed](#)