**Summary of genotypic and phenotypic antibiogram for *K. pnemoniae* cpe004 strain.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Antibiotic** | **Genotypic determinants of resistance** | | | **Phenotypic AST** |
| **AMRFinder** | **ResFinder**  **[not Kpn specific!!]** | **Pathogenwatch** |
| Ampicillin | blaSHV-28  blaTEM-1  blaSHV-11 | blaCTX-M-15  blaTEM-1A  blaOXA-1  blaNDM-1  blaSHV-variants | SHV-28  TEM-1D  SHV-11  **OXA-1**  [penicillins] | Resistant |
| Amikacin | aac(6’)-Ib  aph(3’)-VI | aph(3')-VI  armA  aac(6')-Ib  aac(6')-Ib-cr | aac(3)-IId, aac(6')-Ib', aac(6')-Ib-cr, aac(6')-Ib-cr, aadA2, aph(3')-VI, armA, sat-2  [Aminoglycosides] | Resistant |
| Gentamicin | aac(3)-IId  armA | aac(3)-IId  armA | Resistant |
| Tobramycin | aac(6’)-Ib | armA  aac(6')-Ib aac(6')-Ib-cr aac(3)-IId | Resistant |
| Ciprofloxacin | aac(6’)-Ib-cr5  qnrB1  gyrA\_D87G  gyrA\_S83Y  parC\_S80S  oqxA  oqxB | aac(6')-Ib-cr qnrB1  **[no mutations reported]**  oqxB  oqxA | qnrB1  GyrA-83Y  GyrA-87G  ParC-80I  [Fluoroquinolones] | Resistant |
| Trimethoprim-  Sulfamethoxazole | dfrA1  dfrA12  dfrA14  +  sul1 | dfrA1  dfrA12  dfrA14  oqxB  oqxA  +  sul1 | dfrA1  dfrA12  dfrA14 (homolog)  sul1 [Sulfonamides] | Resistant |
| Cefuroxime  [2nd generation] | blaOXA-1  blaCTX-15 | under\_development | ?? | Resistant |
| Cefotaxime  [3rd generation] | blaOXA-1  blaCTX-15 | blaCTX-M-15 blaNDM-1  blaSHV-106 blaSHV-70  blaSHV-31  blaSHV-13 | CTX-M-15 x 2  [Cephalosporins (3rd gen.)] | Resistant |
| Meropenem | blaNDM-1  ompK36 | blaNDM-1 | NDM-1, OmpK36GD  [carbapenems] | Resistant |
| Amoxycillin clavulanic  Acid  [Penicillins + β-lactamase inhibitors] | Not reported | blaOXA-1  blaNDM-1 | None found | Resistant |
| Piperacillin tazobactam | Not reported | blaOXA-1  blaNDM-1 | Not reported | Resistant |
| Any other antibiotic | Fosfomycin: fosA  tetracycline: tet(D)  chloramphenicol: catB3  Bleomycin: ble  Macrolides: msr(E), mph(E)  Streptomycin: aadA2 | Many others! | Cephalosporins (3rd gen.) + β-lactamase inhibitors, Colistin, Fosfomycin, Tigecycline: None found  Phenicols: CatB4  Tetracycline: tet(D) | Not available |

**Summary of genotypic and phenotypic antibiogram for *Escherichia coli* cpe069 strain.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Antibiotic** | **Genotypic determinants of resistance** | | | **Phenotypic AST** |
| **AMRFinder** | **ResFinder**  **[E. coli specific]** | **Pathogenwatch** |
| Ampicillin | **WT??** | **blaCMY-6**  **blaNDM-1** | *-* | Resistant |
| Amikacin | rmtC [AMG]  aac(6')-Ib3 | rmtC  aac(6')-Ib3 | *-* | Resistant |
| Gentamicin | aac(3)-IId  rmtC [AMG] | aac(3)-IId  rmtC | *-* | Resistant |
| Tobramycin | rmtC [AMG]  aac(6')-Ib3 | **aac(3)-IId**  rmtC  aac(6')-Ib3 | *-* | Resistant |
| Ciprofloxacin | **WT??** | No resistance | *-* | Susceptible |
| Trimethoprim-  Sulfamethoxazole | sul1 | No resistance - sul1 | *-* | Susceptible |
| Cefuroxime | blaCMY-6 [CEP] | Not predicted | *-* | Resistant |
| Cefotaxime | blaCMY-6 [CEP] | blaCMY-6  blaNDM-1 | *-* | Resistant |
| Meropenem | blaNDM-1 | blaNDM-1 | *-* | Resistant |
| Amoxycillin clavulanic  acid | **Not predicted?** | blaCMY-6  blaNDM-1 | *-* | Resistant |
| Piperacillin tazobactam | **Not predicted?** | blaCMY-6  blaNDM-1 | *-* | Resistant |
| Any other antibiotic | Fosfomycin: glpT\_E448K  Colistin: pmrB\_Y358N  Bleomicin: ble | tigecycline, tetracycline, chloramphenicol, fosfomycin, colistin, nalidixic acid: No resistance | - | Not available |

**- : *E. coli* not supported**

**Summary of genotypic and phenotypic antibiogram for your assigned CPE strain.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Antibiotic** | **Genotypic determinants of resistance** | | | **Phenotypic AST \*** |
| **AMRFinder** | **ResFinder** | **Pathogenwatch** |
| Ampicillin |  |  |  |  |
| Amikacin |  |  |  |  |
| Gentamicin |  |  |  |  |
| Tobramycin |  |  |  |  |
| Ciprofloxacin |  |  |  |  |
| Trimethoprim-  Sulfamethoxazole |  |  |  |  |
| Cefuroxime |  |  |  |  |
| Cefotaxime |  |  |  |  |
| Meropenem |  |  |  |  |
| Amoxycillin clavulanic  acid |  |  |  |  |
| Piperacillin tazobactam |  |  |  |  |
| Any other antibiotic |  |  |  |  |

\* Fill in the phenotypic antibiotic resistance of your assigned CPE strain with the disk diffusion results read for your strain.