## **Supplementary File 1**

**Supplementary File 1A**. Quinolone susceptibility and mutations in the quinolone-resistance determining regions of DNA gyrase and topoisomerase IV in *Vibrio cholerae* O1.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Isolate name** | **Disc Diffusion** | | **Mutations** | | | | | | | |
|  | *Nalidixic acid* | *Ciprofloxacin* | *GyrA* | | | | *ParC* | *GyrB* | | |
|  |  |  | *S83* | *S171* | *S202* | *S412* | *S85* | *T142* | *D159* | *V665* |
| CMR\_VC\_06 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_07 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_14 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_16 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_22 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_28 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_29 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_30 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_31 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_33 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_34 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_44 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_48 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_50 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_56 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| CMR\_VC\_57 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_003\_2018 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_004\_2016 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_004\_2018 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_005\_2018 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_023\_2018 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_024\_2018 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_028\_2011 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_055\_2011 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_071\_2011 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_088\_2011 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_109\_2011 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_116\_2011 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_132\_2012 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NER\_205\_2011 | -- | -- | I | A | A | R | L | S | E | I |
| NER\_211\_2018 | Resistant | Susceptible | I | A | A | R | L | S | E | I |
| NGA\_001\_2019 | -- | Susceptible | I | A | A | R | L | S | E | I |
| NGA\_002\_2019 | -- | -- | I | A | A | R | ND | S | E | I |
| NGA\_016\_2019 | -- | Susceptible | I | A | A | R | L | S | E | I |
| NGA\_201\_2018 | -- | Susceptible | I | A | A | R | L | S | E | I |
| NGA\_205\_2018 | -- | -- | I | A | A | R | ND | S | E | I |
| NGA\_206\_2018 | -- | -- | I | A | A | R | ND | S | E | I |
| NGA\_220\_2018 | -- | Susceptible | I | A | A | R | L | S | E | I |
| NGA\_235\_2018 | -- | Susceptible | I | A | A | R | L | S | E | I |
| NGA\_236\_2019 | -- | -- | I | A | A | R | ND | S | E | I |
| NGA\_247\_2018 | -- | Susceptible | I | A | A | R | L | S | E | I |
| NGA\_248\_2018 | -- | Susceptible | I | A | A | R | L | S | E | I |
| NGA\_255\_2018 | -- | Susceptible | I | A | A | R | L | S | E | I |
| NGA\_263\_2018 | -- | -- | I | A | A | R | ND | S | E | I |

S: Serine; I: Isoleucine; L: Leucine; A: Alanine; E: Glutamate; --: Not tested; ND: Not Determined.

No mutations in *parE* genes were observed compared to the reference peptide sequence (susceptible). The two non-O1 genomes (NGA\_148\_2019 and NGA\_252\_2019) were not included in this analysis.

**Supplementary File 1B.** Phenotypic antibiotic resistance profile versus genotypic profile.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Isolate** | **Beta-lactam** | | | **Quinolone** | | | **Phenicol** | | **Polymyxin** | | |
|  | *varG* | *AMC* | *AMP* | *CRP* | *NAL* | *CIP* | *catB9* | *CHL* | *almG* | *PMB* | *CST* |
| CMR\_VC\_06 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_07 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_14 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_16 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_22 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_28 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_29 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_30 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_31 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_33 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_34 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_44 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_48 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_50 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_56 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| CMR\_VC\_57 | Pr | R | -- | Pr | R | S | Pr | S | Pr | R | R |
| NER\_003\_2018 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_004\_2016 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_004\_2018 | Pr | R | -- | Pr | R | -- | Pr | -- | Pr | -- | -- |
| NER\_005\_2018 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_023\_2018 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_024\_2018 | Pr | R | -- | Pr | R | -- | Pr | -- | Pr | -- | -- |
| NER\_028\_2011 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_055\_2011 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_071\_2011 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_088\_2011 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_109\_2011 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_116\_2011 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_132\_2012 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_205\_2011 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NER\_211\_2018 | Pr | R | -- | Pr | R | S | Pr | -- | Pr | -- | -- |
| NGA\_001\_2019 | Pr | -- | R | Pr | R | S | Pr | S | Pr | -- | -- |
| NGA\_002\_2019 | Pr | -- | I | Pr | R | S | Pr | S | Pr | -- | -- |
| NGA\_016\_2019 | Pr | -- | I | Pr | R | S | Pr | S | Pr | -- | -- |
| NGA\_201\_2018 | Pr | -- | I | Pr | R | S | Pr | S | Pr | -- | -- |
| NGA\_205\_2018 | Pr | -- | I | Pr | R | S | Pr | S | Pr | -- | -- |
| NGA\_206\_2018 | Pr | -- | R | Pr | R | S | Pr | S | Pr | -- | -- |
| NGA\_220\_2018 | Pr | -- | I | Pr | R | S | Pr | S | Pr | -- | -- |
| NGA\_235\_2018 | Pr | -- | I | Pr | R | S | Pr | S | Pr | -- | -- |
| NGA\_247\_2018 | Pr | -- | I | Pr | R | S | Pr | S | Pr | -- | -- |
| NGA\_248\_2018 | **Abs** | -- | I | Pr | R | S | Pr | S | **Abs** | -- | -- |
| NGA\_255\_2018 | Pr | -- | R | Pr | R | S | Pr | S | Pr | -- | -- |

### Pr: Gene present; Abs: Gene absent; R: Resistant isolate; S: Susceptible isolate; I: Intermediate; --: Not tested; AMC: amoxicillin-clavulanic acid; AMP: ampicillin; NAL: nalidixic acid; CHL: chloramphenicol; PMB: polymyxin B; CST: colistin. All samples had *tet(34)* present and were susceptible to tetracycline; all samples had *farA* present and were not tested for antibacterial free fatty acids. The following samples were not tested and thus not included in this analysis: NGA\_236\_2019, NGA\_263\_2018, NGA\_148\_2019 and NGA\_252\_2019.