

Table S1. *A. baumannii* genomes containing four plasmids.

| Strain Name          | Date | Source      | Country  | ST  | Plasmid Name  | Size (kb) | Rep    | Tra             | Mob   | Resistance genes carried on plasmids   | GenBank Accession |
|----------------------|------|-------------|----------|-----|---------------|-----------|--------|-----------------|-------|--|-------------------|
| AC1633               | 2016 | Blood       | Malaysia | 126 | pAC1633-1     | 174292    | -      | TraYHM, TrbI    | -     | <i>aac(3)-lld, sul2, bla<sub>NDM-1</sub>, ble-MBL, aph(3'')-lb, strB, bla<sub>OXA-58</sub>, mph/msr(E)</i> | CP059301          |
|                      |      |             |          |     | pAC1633-2     | 12651     | R3-T67 | -               | MobAL | <i>tet39</i>   | CP059303          |
|                      |      |             |          |     | pAC1633-3     | 9950      | R3-T34 | -               | MobAL | -  | CP059304          |
|                      |      |             |          |     | pAC1633-4     | 5210      | R3-T61 | -               | MobAL | -  | CP059302          |
| KSK10                | 2020 | Respiratory | India    | 622 | p1KSK10       | 218105    | -      | TraHY           | -     | <i>mph/msr(E), armA, sul1, bla<sub>PER-7</sub>, sul1, cmlA1, arr-3, ant(3'')-la, sul2, strAB</i>           | CP072281          |
|                      |      |             |          |     | p2KSK10       | 87529     | RP-T1  | TraLEKBVCWUNFHG | -     | <i>bla<sub>OXA-23</sub>, aphA6</i>   | CP072282          |
|                      |      |             |          |     | p3KSK10       | 7540      | R3-T1  | -               | -     | -  | CP072283          |
|                      |      |             |          |     | p4KSK10       | 5679      | -      | TraD            | MobAL | <i>aphA6</i>   | CP072284          |
| KSK19                | 2020 | Respiratory | India    | 622 | p1KSK19       | 218105    | -      | TraHY           | -     | <i>mph/msr(E), armA, sul1, bla<sub>PER-7</sub>, sul1, cmlA1, arr-3, ant(3'')-la, sul2, strAB</i>           | CP072296          |
|                      |      |             |          |     | p2KSK19       | 87529     | RP-T1  | TraLEKBVCWUNFHG | -     | <i>bla<sub>OXA-23</sub>, aphA6</i>   | CP072297          |
|                      |      |             |          |     | p3KSK19       | 7540      | R3-T1  | -               | -     | -  | CP072298          |
|                      |      |             |          |     | p4KSK19       | 5679      | -      | TraD            | MobAL | <i>aphA6</i>   | CP072299          |
| KSK7                 | 2020 | Respiratory | India    | 622 | p1KSK7        | 218105    | -      | TraHY           | -     | <i>mph/msr(E), armA, sul1, bla<sub>PER-7</sub>, sul1, cmlA1, arr-3, ant(3'')-la, sul2, strAB</i>           | CP072276          |
|                      |      |             |          |     | p2KSK7        | 68225     | RP-T1  | TraLEKBVCWUNFHG | -     | <i>aphA6</i>   | CP072277          |
|                      |      |             |          |     | p3KSK7        | 7540      | R3-T1  | -               | -     | -  | CP072278          |
|                      |      |             |          |     | p4KSK7        | 5679      | -      | TraD            | MobAL | <i>aphA6</i>   | CP072279          |
| KSK18                | 2020 | Respiratory | India    | 622 | p1KSK18       | 218105    | -      | TraHY           | -     | <i>mph/msr(E), armA, sul1, bla<sub>PER-7</sub>, sul1, cmlA1, arr-3, ant(3'')-la, sul2, strAB</i>           | CP072291          |
|                      |      |             |          |     | p2KSK18       | 68225     | RP-T1  | TraLEKBVCWUNFHG | -     | <i>aphA6</i>   | CP072292          |
|                      |      |             |          |     | p3KSK18       | 7540      | R3-T1  | -               | -     | -  | CP072293          |
|                      |      |             |          |     | p4KSK18       | 5679      | -      | TraD            | MobAL | <i>aphA6</i>   | CP072294          |
| KSK20                | 2020 | Respiratory | India    | 622 | p1KSK20       | 218105    | -      | TraHY           | -     | <i>mph/msr(E), armA, sul1, bla<sub>PER-7</sub>, sul1, cmlA1, arr-3, ant(3'')-la, sul2, strAB</i>           | CP072301          |
|                      |      |             |          |     | p2KSK20       | 68309     | RP-T1  | TraLEKBVCWUNFHG | -     | <i>aphA6</i>   | CP072302          |
|                      |      |             |          |     | p3KSK20       | 7540      | R3-T1  | -               | -     | -  | CP072303          |
|                      |      |             |          |     | p4KSK20       | 5679      | -      | TraD            | MobAL | <i>aphA6</i>   | CP072304          |
| AR_0070 <sup>a</sup> | -    | -           | -        | 32  | pAR_0070-1    | 105127    | R3-T3  | -               | -     | -  | CP027182          |
|                      |      |             |          |     | pAR_0070-2    | 73018     | R3-T4  | -               | MobAL | -  | CP027180          |
|                      |      |             |          |     | pAR_0070-3    | 39535     | R3-T19 | -               | -     | <i>bla<sub>OXA-58</sub> (3x)</i>   | CP027179          |
|                      |      |             |          |     | pAR_0070-4    | 6078      | -      | -               | MobAC | <i>aadB</i>  | CP027181          |
| Ab-B004d-c           | 2016 | Sputum      | Ghana    | 103 | pAb-B004d-c_1 | 48239     | R3-T20 | -               | -     | <i>dfpA1, mph/msr(E), tet39, aac(3)-lld</i>  | CP051876          |
|                      |      |             |          |     | pAb-B004d-c_2 | 8495      | R3-T10 | -               | -     | -  | CP051877          |
|                      |      |             |          |     | pAb-B004d-c_3 | 8215      | -      | TraD            | MobAL | <i>bla<sub>OXA-23</sub></i>  | CP051878          |
|                      |      |             |          |     | pAb-B004d-c_4 | 2697      | R1-T3  | -               | -     | -  | CP051879          |
| KSK6                 | 2020 | Respiratory | India    | 622 | p1KSK6        | 218105    | -      | TraH Y          | -     | <i>mph/msr(E), armA, sul1, bla<sub>PER-7</sub>, sul1, cmlA1, arr-3, ant(3'')-la, sul2, strAB</i>           | CP072271          |
|                      |      |             |          |     | p2KSK6        | 68224     | RP-T1  | TraLEKBVCWUNFHG | -     | <i>aphA6</i>   | CP072272          |
|                      |      |             |          |     | p3KSK6        | 7540      | R3-T1  | -               | -     | -  | CP072273          |
|                      |      |             |          |     | p4KSK6        | 5679      | -      | TraD            | MobAL | <i>aphA6</i>   | CP072274          |

|                      |      |             |           |      |              |        |                   |                           |       |  |          |
|----------------------|------|-------------|-----------|------|--------------|--------|-------------------|---------------------------|-------|--|----------|
| KSK2                 | 2020 | Respiratory | India     | 622  | p1KSK2       | 218105 | -                 | TraHY                     | -     | <i>mph/msr(E), armA, sul1, bla<sub>PER-7</sub>, sul1, cmlA1, arr-3, ant(3'')-la, sul2, strAB</i> | CP072399 |
|                      |      |             |           |      | p2KSK2       | 87529  | RP-T1             | TraLEKBVCWUNFHG           | -     | <i>bla<sub>OXA-23</sub>, aphA6</i>   | CP072400 |
|                      |      |             |           |      | p3KSK2       | 7540   | R3-T1             | -                         | -     | -  | CP072401 |
|                      |      |             |           |      | p4KSK2       | 5679   | -                 | TraD                      | MobAL | <i>aphA6</i>   | CP072402 |
| KSK11                | 2020 | Respiratory | India     | 622  | p1KSK11      | 218105 | -                 | TraHY                     | -     | <i>mph/msr(E), armA, sul1, bla<sub>PER-7</sub>, sul1, cmlA1, arr-3, ant(3'')-la, sul2, strAB</i> | CP072286 |
|                      |      |             |           |      | p2KSK11      | 87529  | RP-T1             | TraLEKBVCWUNFHG           | -     | <i>bla<sub>OXA-23</sub>, aphA6</i>   | CP072287 |
|                      |      |             |           |      | p3KSK11      | 7540   | R3-T1             | -                         | -     | -  | CP072288 |
|                      |      |             |           |      | p4KSK11      | 5679   | -                 | TraD                      | MobAL | <i>aphA6</i>   | CP072289 |
| AR_0052 <sup>a</sup> | -    | -           | -         | 32   | pAR_0052-1   | 105128 | R3-T3             | -                         | -     | -  | CP027185 |
|                      |      |             |           |      | pAR_0052-2   | 60699  | R3-T19            | -                         | -     | <i>bla<sub>OXA-58</sub> (4x)</i>   | CP027184 |
|                      |      |             |           |      | pAR_0052-3   | 38505  | R3-T4             | -                         | MobAL | -  | CP027186 |
|                      |      |             |           |      | pAR_0052-4   | 6078   | -                 | -                         | MobA  | <i>aadB</i>  | CP027187 |
| D36                  | 2008 | Wound       | Australia | 81   | pD36-4       | 47457  | R3-T25,<br>R3-T63 | -                         | -     | <i>sul2, aphA1</i>   | CP012956 |
|                      |      |             |           |      | pD36-3       | 9276   | R3-T1             | -                         | -     | -  | CP012955 |
|                      |      |             |           |      | pD36-2       | 6078   | -                 | -                         | MobAC | <i>aadB</i>  | CP012954 |
|                      |      |             |           |      | pD36-1       | 4754   | -                 | -                         | MobAC | -  | CP012953 |
| KSK1                 | 2020 | Respiratory | India     | 622  | p1KSK1       | 218105 | -                 | TraHY                     | -     | <i>mph/msr(E), armA, sul1, bla<sub>PER-7</sub>, sul1, cmlA1, arr-3, ant(3'')-la, sul2, strAB</i> | CP072123 |
|                      |      |             |           |      | p2KSK1       | 87529  | RP-T1             | TraLEKBVCWUNFHG           | -     | <i>bla<sub>OXA-23</sub>, aphA6</i>   | CP072124 |
|                      |      |             |           |      | p3KSK1       | 7540   | R3-T1             | -                         | -     | -  | CP072125 |
|                      |      |             |           |      | p4KSK1       | 5679   | -                 | TraD                      | MobAL | <i>aphA6</i>   | CP072126 |
| NY5301               | 2018 | Respiratory | China     | 2    | pNY5301-1    | 110967 | R3-T3             | -                         | -     | -  | CP094284 |
|                      |      |             |           |      | pNY5301-2    | 71194  | RP-T1             | TraLEKBVCWUNFHG           | -     | -  | CP094285 |
|                      |      |             |           |      | pNY5301-3    | 8731   | R3-T1             | -                         | -     | -  | CP094286 |
|                      |      |             |           |      | pNY5301-4    | 2762   | R3-T30            | -                         | -     | -  | CP094287 |
| MRSN 56              | 2010 | Hip         | USA       | 1    | pMRSN56-4    | 8731   | R3-T1             | -                         | -     | -  | CP080456 |
|                      |      |             |           |      | pMRSN56-3    | 6772   | RP-T4             | -                         | MobAC | -  | CP080455 |
|                      |      |             |           |      | pMRSN56-2    | 2725   | R1-T1             | -                         | -     | -  | CP080454 |
|                      |      |             |           |      | pMRSN56-1    | 2178   | R1-T6             | -                         | -     | -  | CP080453 |
| D46                  | 2010 | UTI         | Australia | 25   | pD46-4       | 208004 | r3-T60            | TraYWCUNMIJ               | -     | <i>tet(B), sul2, mph/msr(E), strAB</i>   | CP048135 |
|                      |      |             |           |      | pD46-3       | 74916  | RP-T1             | TraAEKBVCWUNFHG,<br>TrwBC | -     | <i>aphA6</i>   | CP048134 |
|                      |      |             |           |      | pD46-2       | 8731   | R3-T1             | -                         | -     | -  | CP048133 |
|                      |      |             |           |      | pD46-1       | 6078   | -                 | -                         | MobAC | <i>ant(2'')</i>  | CP048132 |
| DA33098              | -    | -           | Spain     | 2    | pDA33098-108 | 108151 | R3-T9             | -                         | -     | -  | CP029570 |
|                      |      |             |           |      | pDA33098-71  | 71234  | RP-T1             | TraLEKBVCWUNFHG           | -     | <i>aphA6</i>   | CP029571 |
|                      |      |             |           |      | pDA33098-9   | 8963   | R3-T2             | -                         | -     | <i>bla<sub>OXA-24</sub></i>  | CP029573 |
|                      |      |             |           |      | pDA33098-9-2 | 8771   | R3-T8             | -                         | MobAL | <i>bla<sub>OXA-24</sub></i>  | CP029572 |
| 36-1512              | 2013 | Respiratory | Russia    | 203  | p1.36-1512   | 113330 | R3-T3             | -                         | -     | <i>sul2</i>  | CP059387 |
|                      |      |             |           |      | p2.36-1512   | 9458   | R3-T13            | -                         | MobAL | -  | CP059388 |
|                      |      |             |           |      | p3.36-1512   | 5688   | R3-T2             | -                         | -     | -  | CP059389 |
|                      |      |             |           |      | p4.36-1512   | 4721   | RP-T5             | -                         | MobC  | -  | CP059390 |
| ABNIH28              | 2016 | Wastewater  | USA       | 1543 | pABA-2f10    | 130044 | R3-T21            | -                         | -     | -  | CP026129 |
|                      |      |             |           |      | pABA-1fe1    | 110754 | R3-T3             | -                         | -     | -  | CP026128 |
|                      |      |             |           |      | pNDM-0285    | 39359  | -                 | TraMADC, TrbL             | -     | <i>ble-MBL, bla<sub>NDM-1</sub>, aph(3')-V1</i>  | CP026127 |
|                      |      |             |           |      | pABA-6973    | 11305  | R3-T13            | -                         | -     | -  | CP026126 |

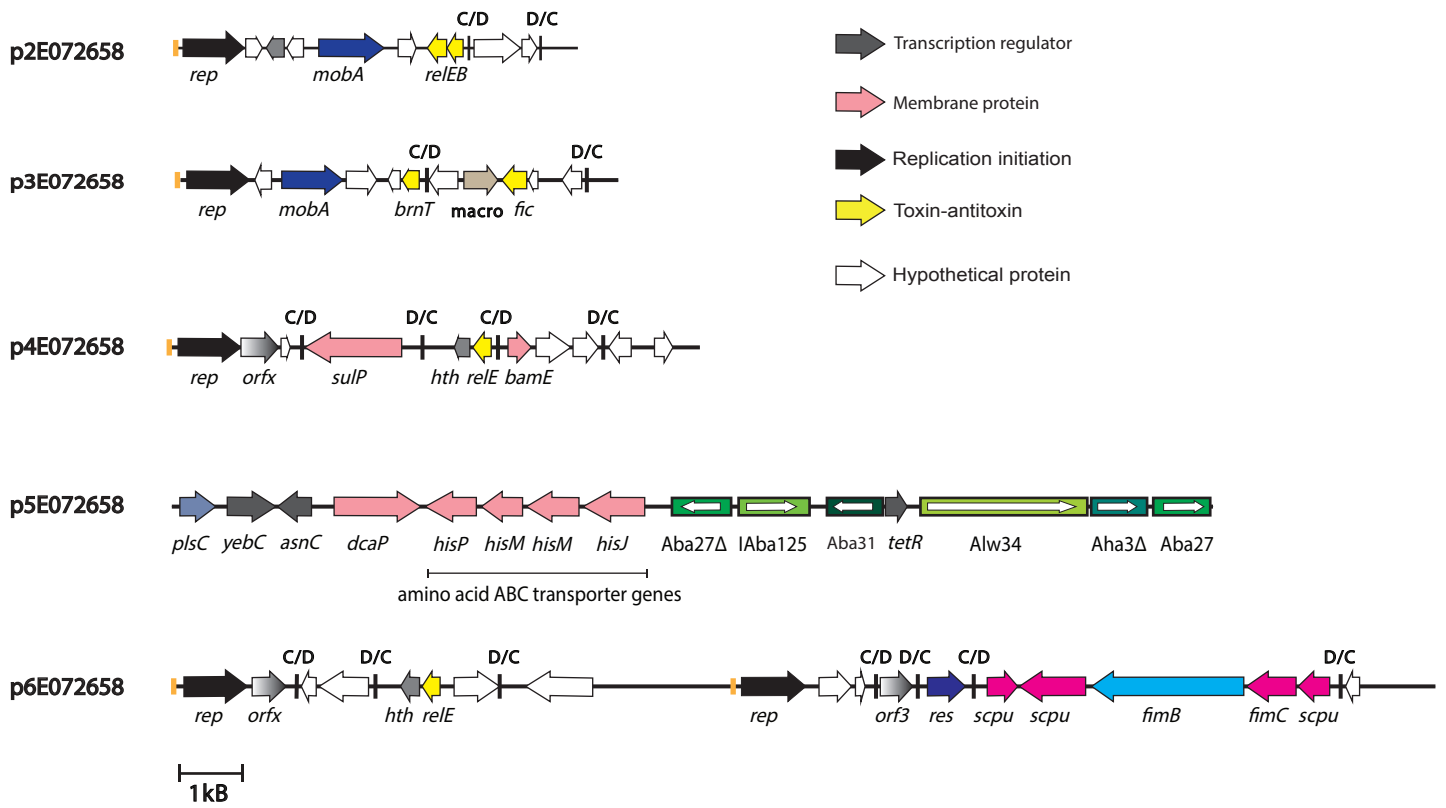
|                          |      |                   |        |       |                            |        |        |                       |      |                  |          |
|--------------------------|------|-------------------|--------|-------|----------------------------|--------|--------|-----------------------|------|------------------|----------|
| Res13-Abat-PEA21-P4-01-A | 2018 | Swab              | Canada | novel | pRes13-Abat_1 <sup>a</sup> | 113139 | R3-T3  | -                     | -    | -                | CP062920 |
|                          |      |                   |        |       | pRes13-Abat_2 <sup>a</sup> | 72831  | RP-T1  | TraLEKBVCWUNFHG       | -    | -                | CP062921 |
|                          |      |                   |        |       | pRes13-Abat_3 <sup>a</sup> | 14288  | R3-T29 | -                     | -    | -                | CP062922 |
|                          |      |                   |        |       | pRes13-Abat_4 <sup>a</sup> | 5242   | R3-T15 | -                     | -    | -                | CP062923 |
| AYE                      | 2001 | Pneumonia and UTI | France | 1     | p3ABAYE                    | 94413  | R3-T7  | -                     | -    | -                | CU459140 |
|                          |      |                   |        |       | p2ABAYE                    | 9661   | R4-T1  | -                     | -    | -                | CU459138 |
|                          |      |                   |        |       | p1ABAYE                    | 5644   | R3-T18 | -                     | MobS | -                | CU459137 |
|                          |      |                   |        |       | p4ABAYE                    | 2726   | R1-T1  | -                     | -    | -                | CU459139 |
| VB11737 <sup>b</sup>     | 2019 | Blood             | India  | 2     | pVB11737_1                 | 70712  | RP-T1  | TraLEKBVCWUNFHG, TrbC | -    | <i>aph(3')-6</i> | CP050392 |
|                          |      |                   |        |       | pVB11737_2                 | 8731   | R3-T1  | -                     | -    | -                | CP050393 |
|                          |      |                   |        |       | pVB11737_3                 | 3383   | -      | -                     | -    | -                | CP050394 |
|                          |      |                   |        |       | pVB11737_4                 | 2637   | -      | -                     | -    | -                | CP050395 |

<sup>a</sup> Named here

<sup>b</sup> Strain was listed as containing 8 plasmids. However, the sequence of 4 plasmids (pVB11737\_5, pVB11737\_6, pVB11737\_7 and pVB11737\_8) only include internal fragments of IS or a resistance gene and hence cant represent plasmids.

|         |   |     |
|---------|---|-----|
| MCR-4.7 | MISRFKTLSVNVQFTFITALFYVAIFNLPLFGIVRKGIEKQPEVDPLFIASMPFLFTFALS   | 60  |
| MCR-4.3 | MISRFKTLSVNVQFTFITALFYVAIFNLPLFGIVRKGIEKQPEVDPLFIASMPFLFTFALS   | 60  |
| MCR-4.6 | MISRFKTLSVNVQFTFITALFYVAIFNLPLFGIVRKGIEKQPEVDPLFIASMPFLFTFALS   | 60  |
| MCR-4.5 | MISRFKTLSVNVQFTFITALFYVAIFNLPLFGIVRKGIEKQPEVDPLFIASMPFLFTFALS   | 60  |
| MCR-4.4 | MISRFKTLSVNVQFTFITALFYVAIFNLPLFGIVRKGIEKQPEVDPLFIASMPFLFTFALS   | 60  |
| MCR-4.1 | MISRFKTLSVNVQFTFITALFYVAIFNLPLFGIVRKGIEKQPEVDPLFIASMPFLFTFALS   | 60  |
| Mcr-4.2 | MISRFKTLSVNVQFTFITALFYVAIFNLPLFGIVRKGIEKQPEVDPLFIASMPFLFTFALS   | 60  |
|         | Prol10Leu   |     |
| MCR-4.7 | FLFSIFTVKYLLKPFVIVLTLSSSVFFFAAYQYNNVFDYGMIENTFQTHPAEALMYVNLA    | 120 |
| MCR-4.3 | FLFSIFTVKYLLKPFVIVLTLSSSVFFFAAYQYNNVFDYGMIENTFQTHPAEALMYVNLA    | 120 |
| MCR-4.6 | FLFSIFTVKYLLKPFVIVLTLSSSVFFFAAYQYNNVFDYGMIENTFQTHPAEALMYVNLA    | 120 |
| MCR-4.5 | FLFSIFTVKYLLKPFVIVLTLSSSVFFFAAYQYNNVFDYGMIENTFQTHPAEALMYVNLA    | 120 |
| MCR-4.4 | FLFSIFTVKYLLKPFVIVLTLSSSVFFFAAYQYNNVFDYGMIENTFQTHPAEALMYVNLA    | 120 |
| MCR-4.1 | FLFSIFTVKYLLKPFVIVLTLSSSVFFFAAYQYNNVFDYGMIENTFQTHPAEALMYVNLA    | 120 |
| Mcr-4.2 | FLFSIFTVKYLLKPFVIVLTLSSSVFFFAAYQYNNVFDYGMIENTFQTHPAEALMYVNLA    | 120 |
|         | Val179Gly   |     |
| MCR-4.7 | SITNLLLTGLLPSYLIYKADIHYQPFKELLHKLAFMLLMFVIGIVAFFYYQDYAAFGR      | 180 |
| MCR-4.3 | SITNLLLTGLLPSYLIYKADIHYQPFKELLHKLAFMLLMFVIGIVAFFYYQDYAAFGR      | 180 |
| MCR-4.6 | SITNLLLTGLLPSYLIYKADIHYQPFKELLHKLAFMLLMFVIGIVAFFYYQDYAAFVR      | 180 |
| MCR-4.5 | SITNLLLTGLLPSYLIYKADIHYQPFKELLHKLAFMLLMFVIGIVAFFYYQDYAAFVR      | 180 |
| MCR-4.4 | SITNLLLTGLLPSYLIYKADIHYQPFKELLHKLAFMLLMFVIGIVAFFYYQDYAAFVR      | 180 |
| MCR-4.1 | SITNLLLTGLLPSYLIYKADIHYQPFKELLHKLAFMLLMFVIGIVAFFYYQDYAAFVR      | 180 |
| Mcr-4.2 | SITNLLLTGLLPSYLIYKADIHYQPFKELLHKLAFMLLMFVIGIVAFFYYQDYAAFVR      | 180 |
|         | His205Asn Val236Phe   |     |
| MCR-4.7 | NNSELRRYIVPTYFVSSASKYLNHEHYLQTPMEYQQLGLDAKNASRNPNTKPNLLVFFVVG   | 240 |
| MCR-4.3 | NNSELRRYIVPTYFVSSASKYLNHEHYLQTPMEYQQLGLDAKNASRNPNTKPNLLVFFVVG   | 240 |
| MCR-4.6 | NNSELRRYIVPTYFVSSASKYLNHEHYLQTPMEYQQLGLDAKNASRNPNTKPNLLVFFVVG   | 240 |
| MCR-4.5 | NNSELRRYIVPTYFVSSASKYLNHEHYLQTPMEYQQLGLDAKNASRNPNTKPNLLVFFVVG   | 240 |
| MCR-4.4 | NNSELRRYIVPTYFVSSASKYLNHEHYLQTPMEYQQLGLDAKNASRNPNTKPNLLVFFVVG   | 240 |
| MCR-4.1 | NNSELRRYIVPTYFVSSASKYLNHEHYLQTPMEYQQLGLDAKNASRNPNTKPNLLVFFVVG   | 240 |
| Mcr-4.2 | NNSELRRYIVPTYFVSSASKYLNHEHYLQTPMEYQQLGLDAKNASRNPNTKPNLLVFFVVG   | 240 |
|         | Gln331Arg   |     |
| MCR-4.7 | TARMSYQYYGYNKPTNAHTQNQGLIAFNNTSSCGTATAVSLPCMFSRMGRADYDPRRAN     | 300 |
| MCR-4.3 | TARMSYQYYGYNKPTNAHTQNQGLIAFNNTSSCGTATAVSLPCMFSRMGRADYDPRRAN     | 300 |
| MCR-4.6 | TARMSYQYYGYNKPTNAHTQNQGLIAFNNTSSCGTATAVSLPCMFSRMGRADYDPRRAN     | 300 |
| MCR-4.5 | TARMSYQYYGYNKPTNAHTQNQGLIAFNNTSSCGTATAVSLPCMFSRMGRADYDPRRAN     | 300 |
| MCR-4.4 | TARMSYQYYGYNKPTNAHTQNQGLIAFNNTSSCGTATAVSLPCMFSRMGRADYDPRRAN     | 300 |
| MCR-4.1 | TARMSYQYYGYNKPTNAHTQNQGLIAFNNTSSCGTATAVSLPCMFSRMGRADYDPRRAN     | 300 |
| Mcr-4.2 | TARMSYQYYGYNKPTNAHTQNQGLIAFNNTSSCGTATAVSLPCMFSRMGRADYDPRRAN     | 300 |
|         | Gln331Arg   |     |
| MCR-4.7 | AQDTVIDVLSHSGIKVQWFDNDSGCKGVCDRVENLTIDLKSDPKLCSGQYCFDQVLLNKL    | 360 |
| MCR-4.3 | AQDTVIDVLSHSGIKVQWFDNDSGCKGVCDQVENLTIDLKSDPKLCSGQYCFDQVLLNKL    | 360 |
| MCR-4.6 | AQDTVIDVLSHSGIKVQWFDNDSGCKGVCDQVENLTIDLKSDPKLCSGQYCFDQVLLNKL    | 360 |
| MCR-4.5 | AQDTVIDVLSHSGIKVQWFDNDSGCKGVCDRVENLTIDLKSDPKLCSGQYCFDQVLLNKL    | 360 |
| MCR-4.4 | AQDTVIDVLSHSGIKVQWFDNDSGCKGVCDRVENLTIDLKSDPKLCSGQYCFDQVLLNKL    | 360 |
| MCR-4.1 | AQDTVIDVLSHSGIKVQWFDNDSGCKGVCDQVENLTIDLKSDPKLCSGQYCFDQVLLNKL    | 360 |
| Mcr-4.2 | AQDTVIDVLSHSGIKVQWFDNDSGCKGVCDRVENLTIDLKSDPKLCSGQYCFDQVLLNKL    | 360 |
|         | Gln331Arg   |     |
| MCR-4.7 | DKILAVAPSQDQTVIFLHIIGSHGPTYYLRYPPPEHRKFI PDCPRSDIQNCSQEELINTYDN | 420 |
| MCR-4.3 | DKILAVAPSQDQTVIFLHIIGSHGPTYYLRYPPPEHRKFI PDCPRSDIQNCSQEELINTYDN | 420 |
| MCR-4.6 | DKILAVAPSQDQTVIFLHIIGSHGPTYYLRYPPPEHRKFI PDCPRSDIQNCSQEELINTYDN | 420 |
| MCR-4.5 | DKILAVAPSQDQTVIFLHIIGSHGPTYYLRYPPPEHRKFI PDCPRSDIQNCSQEELINTYDN | 420 |
| MCR-4.4 | DKILAVAPSQDQTVIFLHIIGSHGPTYYLRYPPPEHRKFI PDCPRSDIQNCSQEELINTYDN | 420 |
| MCR-4.1 | DKILAVAPSQDQTVIFLHIIGSHGPTYYLRYPPPEHRKFI PDCPRSDIQNCSQEELINTYDN | 420 |
| Mcr-4.2 | DKILAVAPSQDQTVIFLHIIGSHGPTYYLRYPPPEHRKFI PDCPRSDIQNCSQEELINTYDN | 420 |
|         | Gln331Arg   |     |
| MCR-4.7 | TILYTDFFILSEVNVNKLKQDMFDTAML YLSDHGESLGEKGMYLHGAPYSIAPKEQTSVP   | 480 |
| MCR-4.3 | TILYTDFFILSEVNVNKLKQDMFDTAML YLSDHGESLGEKGMYLHGAPYSIAPKEQTSVP   | 480 |
| MCR-4.6 | TILYTDFFILSEVNVNKLKQDMFDTAML YLSDHGESLGEKGMYLHGAPYSIAPKEQTSVP   | 480 |
| MCR-4.5 | TILYTDFFILSEVNVNKLKQDMFDTAML YLSDHGESLGEKGMYLHGAPYSIAPKEQTSVP   | 480 |
| MCR-4.4 | TILYTDFFILSEVNVNKLKQDMFDTAML YLSDHGESLGEKGMYLHGAPYSIAPKEQTSVP   | 480 |
| MCR-4.1 | TILYTDFFILSEVNVNKLKQDMFDTAML YLSDHGESLGEKGMYLHGAPYSIAPKEQTSVP   | 480 |
| Mcr-4.2 | TILYTDFFILSEVNVNKLKQDMFDTAML YLSDHGESLGEKGMYLHGAPYSIAPKEQTSVP   | 480 |
|         | Val485Ile   |     |
| MCR-4.7 | MLAWVSNDFSQDNQLNMT CVAQRAEQGGFSDNLFDSLGLMNVKTTVYQSQLDIFAPCR     | 540 |
| MCR-4.3 | MLAWVSNDFSQDNQLNMT CVAQRAEQGGFSDNLFDSLGLMNVKTTVYQSQLDIFAPCR     | 540 |
| MCR-4.6 | MLAWVSNDFSQDNQLNMT CVAQRAEQGGFSDNLFDSLGLMNVKTTVYQSQLDIFAPCR     | 540 |
| MCR-4.5 | MLAWVSNDFSQDNQLNMT CVAQRAEQGGFSDNLFDSLGLMNVKTTVYQSQLDIFAPCR     | 540 |
| MCR-4.4 | MLAWVSNDFSQDNQLNMT CVAQRAEQGGFSDNLFDSLGLMNVKTTVYQSQLDIFAPCR     | 540 |
| MCR-4.1 | MLAWVSNDFSQDNQLNMT CVAQRAEQGGFSDNLFDSLGLMNVKTTVYQSQLDIFAPCR     | 540 |
| Mcr-4.2 | MLAWVSNDFSQDNQLNMT CVAQRAEQGGFSDNLFDSLGLMNVKTTVYQSQLDIFAPCR     | 540 |
|         | Gln331Arg   |     |
| MCR-4.7 | Y 541   |     |
| MCR-4.3 | Y 541   |     |
| MCR-4.6 | Y 541   |     |
| MCR-4.5 | Y 541   |     |
| MCR-4.4 | Y 541   |     |
| MCR-4.1 | Y 541   |     |
| Mcr-4.2 | Y 541   |     |

**Figure S1.** Sequence alignment showing variation in amino acid sequences with respect to MCR-4.1 using Clustal Omega. The MCR-4 allele sequences were retrieved from NCBI with the following accession numbers: MCR-4.1(WP\_099156046.1), MCR-4.2(AFN76074.1), MCR-4.3(WP\_011638903.1), MCR-4.4(WP\_109545055.1), MCR-4.5(WP\_109545054.1), MCR-4.6(WP\_116786828.1) and MCR-4.7(p8E072658)



**Figure S2.** Genetic structure of cryptic plasmids found in E-072658.

Arrows indicate the extent and orientation of genes. Replication genes are coloured black and Insertion sequences are shown using green boxes.