

Supplementary Table S4

| centre | 1 | 2 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|----------|-------------------------------------|---|---|---|--|---|--|---|---|---|--|
| tool | PathogenWatch | Resfinder (3.2) | BioNumerics | Resfinder (3.2) | abricate | ResFinder (2.0) | ResFinder | | ResFinder | GoSeqIt | Abriicate |
| database | | ResFinder | Resfinder | ResFinder | NCBI | ResFinder | ResFinder | | ResFinder | ResFinder | ResFinder |
| KP01 | CTX-M-15, SHV-172, TEM-30 | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-172, TEM-1 | CTX-M-15, SHV-11, TEM-1B | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-11, TEM-1B | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-11, TEM-1B | CTX-M-15, SHV-172, TEM-1B |
| KP02 | CTX-M-9, SHV-187 | CTX-M-9, SHV-33 | CTX-M-9, SHV-33 | CTX-M-9, SHV-33 | CTX-M-9, SHV-187 | CTX-M-9, SHV-1 | CTX-M-9, SHV-33 | CTX-M-9, SHV-187 | CTX-M-9, SHV-1 | CTX-M-9, SHV-33 | CTX-M-9, SHV-187 |
| KP03 | CTX-M-15, SHV-27, TEM-30 | CTX-M-15, SHV-110, SHV-191, SHV-27, TEM-1B | CTX-M-15, SHV-191, TEM-1B | CTX-M-15, SHV-27, TEM-1B | CTX-M-15, SHV-110, TEM-1 | CTX-M-15, SHV-27, TEM-1B | CTX-M-15, SHV-110, SHV-191, SHV-27, TEM-1B | CTX-M-15, SHV-110, TEM-1B | CTX-M-15, SHV-27, TEM-1B | CTX-M-15, SHV-110, TEM-1B | CTX-M-15, SHV-110, TEM-1B |
| KP04 | CTX-M-15, OXA-1, SHV-187, TEM-30 | CTX-M-15, OXA-1, SHV-40, SHV-56, SHV-79, SHV-85, SHV-89, TEM-1B | CTX-M-15, OXA-1, SHV-79, TEM-1B | CTX-M-15, OXA-1, SHV-40, TEM-1B | CTX-M-15, OXA-1, SHV-187, TEM-1 | CTX-M-15, OXA-1, SHV-11, TEM-1B | CTX-M-15, OXA-1, SHV-40, SHV-56, SHV-79, SHV-85, SHV-89, TEM-1B | CTX-M-15, OXA-1, SHV-187, TEM-1B | CTX-M-15, OXA-1, SHV-11, TEM-1B | CTX-M-15, OXA-1, SHV-40, TEM-1B | CTX-M-15, OXA-1, SHV-187, TEM-1B |
| KP05 | CTX-M-15, SHV-187 | CTX-M-15, SHV-40, SHV-56, SHV-79, SHV-85, SHV-89 | CTX-M-15, SHV-79 | CTX-M-15, SHV-40 | CTX-M-15, SHV-187 | CTX-M-15, SHV-11 | CTX-M-15, SHV-40, SHV-56, SHV-79, SHV-85, SHV-89 | CTX-M-15, SHV-187 | CTX-M-15, SHV-11 | CTX-M-15, SHV-40 | CTX-M-15, SHV-187 |
| KP06 | CTX-M-15, OXA-48, SHV-67, TEM-30 | CTX-M-15, OXA-48, SHV-11, SHV-67, TEM-1B | CTX-M-15, OXA-48, SHV-11, TEM-1B | CTX-M-15, OXA-48, SHV-67, TEM-1B | CTX-M-15, OXA-48, SHV-11, TEM-1 | CTX-M-15, OXA-48, SHV-11, TEM-1B | CTX-M-15, OXA-48, SHV-11, SHV-67, TEM-1B | CTX-M-15, OXA-48, SHV-11, TEM-1B | CTX-M-15, OXA-48, SHV-11, TEM-1B | CTX-M-15, OXA-48, SHV-11, TEM-1B | CTX-M-15, OXA-48, SHV-11, TEM-1B |
| KP07 | CTX-M-14, OXA-1, SHV-77 | CTX-M-14, OXA-1, SHV-110, SHV-81 | CTX-M-14, OXA-1, SHV-81 | CTX-M-14, OXA-1, SHV-81 | CTX-M-14, OXA-1, SHV-110 | CTX-M-14, OXA-1, SHV-11 | OXA-1, SHV-110, SHV-81 | CTX-M-14, OXA-1, SHV-110 | CTX-M-14, OXA-1, SHV-11 | CTX-M-14, OXA-1, SHV-81 | CTX-M-14, OXA-1, SHV-110 |
| KP08 | CTX-M-14, SHV-142, TEM-30 | CTX-M-14, SHV-142, TEM-1B | CTX-M-14, SHV-142, TEM-1B | CTX-M-14, SHV-142, TEM-1B | CTX-M-14, SHV-142, TEM-1 | CTX-M-14, SHV-142, TEM-1B | CTX-M-14, SHV-142, TEM-1B | CTX-M-14, SHV-142, TEM-1B | CTX-M-14, SHV-142, TEM-1B | CTX-M-14, SHV-142, TEM-1B | CTX-M-14, SHV-142, TEM-1B |
| KP09 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | | CTX-M-15, OXA-1, SHV-105 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 |

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| KP10 | CTX-M-14, SHV-187, TEM-30 | CTX-M-14, SHV-187, TEM-1B | CTX-M-14, SHV-1b, TEM-1B | CTX-M-14, SHV-187, TEM-1B | CTX-M-14, SHV-187, TEM-1 | CTX-M-14, SHV-83, TEM-1B | CTX-M-14, SHV-187, TEM-1B | CTX-M-14, SHV-83, TEM-1B | CTX-M-14, SHV-187, TEM-1B | CTX-M-14, SHV-187, TEM-1B | CTX-M-14, SHV-187, TEM-1B |
| KP11 | CTX-M-15, OXA-1, SHV-11, TEM-30 | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-159, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-158, TEM-1 | CTX-M-15, OXA-1, SHV-11, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-11, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B |
| KP12 | CTX-M-15, OXA-1, SHV-187, TEM-30 | CTX-M-15, OXA-1, SHV-187, TEM-1B | CTX-M-15, OXA-1, SHV-38, TEM-1B | CTX-M-15, OXA-1, SHV-187, TEM-1B | CTX-M-15, OXA-1, SHV-187, TEM-1 | CTX-M-15, OXA-1, SHV-1, TEM-1B | CTX-M-15, OXA-1, SHV-187, TEM-1B | CTX-M-15, OXA-1, SHV-187, TEM-1B | CTX-M-15, OXA-1, SHV-187, TEM-1B | CTX-M-15, OXA-1, SHV-187, TEM-1B | CTX-M-15, OXA-1, SHV-187, TEM-1B |
| KP13 | CTX-M-3, SHV-27 | CTX-M-3, SHV-110, SHV-191, SHV-27 | CTX-M-3, SHV-110 | CTX-M-3, SHV-27 | CTX-M-3, SHV-110 | CTX-M-3, SHV-27 | CTX-M-3, SHV-110, SHV-191, SHV-27 | CTX-M-3, SHV-110 | CTX-M-3, SHV-27 | CTX-M-3, SHV-27 | CTX-M-3, SHV-110 |
| KP14 | CTX-M-15, OXA-1, SHV-11, TEM-30 | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-159, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-158, TEM-1 | CTX-M-15, OXA-1, SHV-11, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-11, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B |
| KP15 | CTX-M-15, OXA-1, SHV-28, TEM-30 | CTX-M-15, OXA-1, SHV-106, SHV-28, TEM-1B | CTX-M-15, OXA-1, SHV-106, TEM-1B | CTX-M-15, OXA-1, SHV-28, TEM-1B | CTX-M-15, OXA-1, SHV-106, TEM-1 | CTX-M-15, OXA-1, SHV-28, TEM-1B | CTX-M-15, OXA-1, SHV-106, SHV-28, TEM-1B | CTX-M-15, OXA-1, SHV-106, TEM-1B | CTX-M-15, OXA-1, SHV-28, TEM-1B | CTX-M-15, OXA-1, SHV-28, TEM-1B | CTX-M-15, OXA-1, SHV-106, TEM-1B |
| KP16 | CTX-M-15, SHV-187 | CTX-M-15, SHV-40, SHV-56, SHV-79, SHV-85, SHV-89 | CTX-M-15, SHV-79 | CTX-M-15, SHV-40 | CTX-M-15, SHV-187 | CTX-M-15, SHV-11 | CTX-M-15, SHV-40, SHV-56, SHV-79, SHV-85, SHV-89 | CTX-M-15, SHV-187 | CTX-M-15, SHV-11 | CTX-M-15, SHV-40 | CTX-M-15, SHV-187 |
| KP17 | CTX-M-15, SHV-187, TEM-30 | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-215, TEM-1 | CTX-M-15, SHV-11, TEM-1B | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-187, TEM-1B | CTX-M-15, SHV-11, TEM-1B | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-187, TEM-1B |
| KP18 | SHV-12 | SHV-12, SHV-160 | SHV-148 | | SHV-65 | SHV-2 | SHV-12, SHV-160, SHV-66 | SHV-187, SHV-65 | SHV-65 | | SHV-12 |

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| KP19 | CTX-M-15, OXA-1, OXA-9, SHV-28, TEM-54 | CTX-M-15, OXA-1, OXA-9, SHV-106, SHV-28, TEM-168, TEM-181, TEM-183, TEM-1A, TEM-231, TEM-54, TEM-93 | CTX-M-15, OXA-1, OXA-9, SHV-106, TEM-1B | CTX-M-15, OXA-1, OXA-9, SHV-28, TEM-1A | CTX-M-15, OXA-1, OXA-9, SHV-28, SHV-212 TEM-1A | CTX-M-15, OXA-1, OXA-9, SHV-1, TEM-1A | CTX-M-15, OXA-1, OXA-9, SHV-106, SHV-28 | CTX-M-15, OXA-1, OXA-9, SHV-106, TEM-1B | CTX-M-15, OXA-1, OXA-9, SHV-1 | CTX-M-15, OXA-1, OXA-9, SHV-28 | CTX-M-15, OXA-1, OXA-9, SHV-106 |
| KP20 | SHV-2, TEM-54 | TEM-1A | SHV-2, TEM-1A | SHV-2, TEM-1A | TEM-150 | TEM-1A | SHV-2, TEM-1A | SHV-2, TEM-1A | TEM-1A | SHV-2, TEM-1A | SHV-2, TEM-1A |
| KP21 | CTX-M-3, SHV-77 | CTX-M-3, SHV-110, SHV-81 | CTX-M-211, SHV-110 | CTX-M-3, SHV-81 | CTX-M-3, SHV-110 | CTX-M-3, SHV-11 | CTX-M-3, SHV-110, SHV-81 | CTX-M-3, SHV-110 | CTX-M-3, SHV-11 | CTX-M-3, SHV-81 | CTX-M-3, SHV-110 |
| KP22 | CTX-M-15, SHV-187, TEM-135 | CTX-M-15, SHV-40, SHV-56, SHV-79, SHV-85, SHV-89, TEM-1C | CTX-M-15, SHV-79, TEM-1C | CTX-M-15, SHV-40, TEM-1C | CTX-M-15, SHV-187, TEM-235 | CTX-M-15, SHV-11, TEM-1C | CTX-M-15, SHV-40, SHV-56, SHV-79, SHV-85, SHV-89, TEM-1C | CTX-M-15, SHV-187, TEM-1C | CTX-M-15, SHV-11, TEM-1C | CTX-M-15, SHV-40, TEM-1C | CTX-M-15, SHV-187, TEM-1C |
| KP23 | CTX-M-9 | CTX-M-9 | CTX-M-9 | CTX-M-9 | CTX-M-9 | CTX-M-9 | CTX-M-9 | CTX-M-9 | | CTX-M-9 | CTX-M-9 |
| KP24 | CTX-M-15, SHV-187, TEM-54 | CTX-M-15, SHV-40, SHV-56, SHV-79, SHV-85, SHV-89, TEM-1A | CTX-M-15, SHV-79, TEM-1A | CTX-M-15, SHV-40, TEM-1A | CTX-M-15, SHV-187, TEM-150 | CTX-M-15, SHV-11, TEM-1A | CTX-M-15, SHV-40, SHV-56, SHV-79, SHV-85, SHV-89, TEM-1A | CTX-M-15, SHV-187, TEM-1A | CTX-M-15, SHV-11, TEM-1A | CTX-M-15, SHV-40, TEM-1A | CTX-M-15, SHV-187, TEM-1A |
| KP25 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1, TEM-105 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 |
| KP26 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1, TEM-105 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 | CTX-M-15, OXA-1, SHV-1 |
| KP27 | OXA-1, OXA-9, SHV-28, TEM-54 | CTX-M-15, OXA-1, OXA-9, SHV-106, SHV-28, TEM-1A | CTX-M-15, OXA-1, OXA-9, SHV-106, TEM-1A | CTX-M-15, OXA-1, OXA-9, SHV-28, TEM-1A | CTX-M-15, OXA-1, OXA-9, SHV-212, TEM-150 | CTX-M-15, OXA-1, OXA-9, SHV-1, TEM-1A | CTX-M-15, OXA-1, OXA-9, SHV-106, SHV-28, TEM-1A | CTX-M-103, CTX-M-114, OXA-1, OXA-9, SHV-106, TEM-1A | CTX-M-15, OXA-1, OXA-9, SHV-28, TEM-1A | CTX-M-15, OXA-1, OXA-9, SHV-28, TEM-1A | CTX-M-15, OXA-1, OXA-9, SHV-106, SHV-28, TEM-1A |
| KP28 | CTX-M-15, SHV-28, TEM-30 | CTX-M-15, SHV-106, SHV-28, TEM-1B | CTX-M-15, SHV-106, TEM-209 | CTX-M-15, SHV-28, TEM-1B | CTX-M-15, SHV-106, TEM-1 | CTX-M-15, SHV-28, TEM-1B | CTX-M-15, SHV-106, SHV-28, TEM-1B | CTX-M-15, SHV-106, TEM-1B, | CTX-M-15, SHV-28, TEM-1B | CTX-M-15, SHV-28, TEM-1B | CTX-M-15, SHV-106, TEM-1B |
| KP29 | SHV-12, TEM-30 | SHV-12, TEM-1B | SHV-12, TEM-1B | TEM-1B | SHV-12, TEM-1 | TEM-1B | SHV-12, SHV-129, SHV-13, SHV-155, SHV-172, SHV-31, TEM-1B | SHV-12, SHV-187, SHV-187, TEM-1B | TEM-1B | TEM-1B | SHV-12, TEM-1B |

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| KP30 | CTX-M-15, SHV-187, TEM-30 | CTX-M-15, SHV-187, TEM-1B | CTX-M-15, SHV-38, TEM-1B | CTX-M-15, SHV-187, TEM-1B | CTX-M-15, SHV-187, TEM-1 | CTX-M-15, SHV-1, TEM-1B | CTX-M-15, SHV-187, TEM-1B | CTX-M-15, SHV-187, TEM-1B | CTX-M-15, SHV-1, TEM-1B | CTX-M-15, SHV-187, TEM-1B | CTX-M-15, SHV-187, TEM-1B |
| KP31 | CTX-M-101, SHV-36 | CTX-M-101, SHV-178, SHV-193, SHV-36, SHV-80 | CTX-M-101, SHV-36 | CTX-M-101, SHV-36 | CTX-M-101, SHV-178 | CTX-M-101, SHV-36 | CTX-M-101, SHV-178, SHV-193, SHV-36, SHV-80 | CTX-M-101, SHV-178 | CTX-M-101, SHV-36 | CTX-M-101, SHV-36 | CTX-M-101, SHV-178 |
| KP32 | CTX-M-15, OXA-1, SHV-11, TEM-30 | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-159, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-158, TEM-1 | CTX-M-15, OXA-1, SHV-11, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-11, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B | CTX-M-15, OXA-1, SHV-182, TEM-1B |
| KP33 | CTX-M-55, SHV-108 | CTX-M-55, SHV-108 | CTX-M-55, SHV-108 | CTX-M-55, SHV-108 | CTX-M-55, SHV-108 | CTX-M-55, SHV-108 | CTX-M-55, SHV-108 | CTX-M-55, SHV-108 | CTX-M-55, SHV-108 | CTX-M-55, SHV-108 | CTX-M-55, SHV-108 |
| KP34 | CTX-M-14, SHV-67 | CTX-M-14, SHV-11, SHV-67 | CTX-M-14, SHV-11 | SHV-67 | CTX-M-14, SHV-11 | CTX-M-14, SHV-11 | SHV-11, SHV-67 | CTX-M-14, SHV-11 | SHV-11 | SHV-67 | CTX-M-14, SHV-11 |
| KP35 | CTX-M-14, SHV-27 | CTX-M-14, SHV-27 | CTX-M-14, SHV-27 | CTX-M-14, SHV-27 | CTX-M-14, SHV-27 | CTX-M-14, SHV-27 | CTX-M-14, SHV-27 | CTX-M-14, SHV-27 | CTX-M-14, SHV-27 | CTX-M-14, SHV-27 | CTX-M-14, SHV-27 |
| KP36 | CTX-M-15, SHV-28, TEM-30 | CTX-M-15, SHV-106, SHV-28, TEM-1B | CTX-M-15, SHV-106, TEM-1B | CTX-M-33, SHV-28, TEM-1B | CTX-M-15, SHV-106, TEM-1 | CTX-M-15, SHV-28, TEM-1B | CTX-M-15, SHV-106, SHV-28, TEM-1B | CTX-M-15, SHV-106, TEM-102, TEM-102, TEM-1B, TEM-1B | CTX-M-15, SHV-28, TEM-1B | SHV-28, TEM-1B | CTX-M-15, SHV-106, TEM-1B |
| KP37 | CTX-M-15, OXA-1, SHV-52, TEM-30 | CTX-M-15, OXA-1, SHV-52, TEM-1B | CTX-M-15, OXA-1, SHV-52, TEM-1B | CTX-M-15, OXA-1, SHV-52, TEM-1B | CTX-M-15, OXA-1, SHV-52, TEM-1 | CTX-M-15, OXA-1, SHV-52, TEM-1B | CTX-M-15, OXA-1, SHV-52, TEM-1B | CTX-M-15, OXA-1, SHV-52, TEM-1B | CTX-M-15, OXA-1, SHV-52, TEM-1B | CTX-M-15, OXA-1, SHV-52, TEM-1B | CTX-M-15, OXA-1, SHV-52, TEM-1B |
| KP38 | CTX-M-15, OXA-1, SHV-12, TEM-30 | CTX-M-15, OXA-1, SHV-12, TEM-1B | CTX-M-15, OXA-1, SHV-119, TEM-1B | CTX-M-15, OXA-1, SHV-12, TEM-1B | CTX-M-15, OXA-1, SHV-142, TEM-1 | CTX-M-15, OXA-1, SHV-2, TEM-1B | CTX-M-15, OXA-1, SHV-12, TEM-1B | CTX-M-15, OXA-1, SHV-119, SHV-187, TEM-1B | CTX-M-15, OXA-1, TEM-1B | CTX-M-15, OXA-1, SHV-12, TEM-1B | CTX-M-15, OXA-1, SHV-12, TEM-1B |

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|--------|--|--|---|--|---|--|--|--|--------------------------------------|--|--|
| KP39 | CTX-M-15, OXA-1, SHV- 12, TEM-30 | CTX-M-15, OXA-1, SHV- 148, SHV-185, SHV-98, TEM-1B | CTX-M-15, OXA-1, SHV-119, TEM-1B | CTX-M- 15, OXA- 1, SHV- 2, TEM- 1B | CTX-M- 15, OXA- 1, SHV- 142, TEM- 1 | CTX-M- 15, OXA- 1, SHV- 142, TEM- 1B | CTX-M-15, OXA-1, SHV-11, SHV-13, SHV-185, SHV-25, SHV-31, SHV-69, SHV-70, TEM-1B | CTX-M-15, OXA-1, SHV- 12, SHV-187, TEM-1B | CTX-M- 15, OXA- 1, TEM- 1B | CTX-M- 15, OXA- 1, SHV- 2, TEM- 1B | CTX-M- 15, OXA- 1, SHV- 187, TEM- 1B |
| KP40 | CTX-M-15, SHV-172, TEM- 30 | CTX-M-15, SHV-172, TEM- 1B | CTX-M-15, SHV-172, TEM-1B | CTX-M- 15, SHV- 172, TEM- 1B | CTX-M- 15, SHV- 172, TEM- 1 | CTX-M- 15, SHV- 11, TEM- 1B | CTX-M-15, SHV-172, TEM-1B | CTX-M-15, SHV-172, TEM-1B | CTX-M- 15, SHV- 11, TEM- 1B | CTX-M- 15, SHV- 172, TEM- 1B | CTX-M- 15, SHV- 172, TEM- 1B |

Supplementary Table S5

| centre | 1 | 2 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|----------|--|-----------------|-------------|-----------------|---|---|-----------|--------|---|-----------|-----------|
| tool | PathogenWatch | Resfinder (3.2) | BioNumerics | Resfinder (3.2) | abricate | ResFinder (2.0) | ResFinder | | ResFinder | GoSeqIt | Abriicate |
| database | | ResFinder | Resfinder | ResFinder | NCBI | ResFinder | ResFinder | | ResFinder | ResFinder | ResFinder |
| VRE01 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE02 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE03 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE04 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE05 | <i>vanA, vanHA, vanRA, vanSA, vanXA</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A</i> | VanHAX | VanHAX |
| VRE06 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |
| VRE07 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |

| centre | 1 | 2 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|--------|---|--------|--------|--------|---|---|--------|--------|---|--------|--------|
| VRE08 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |
| VRE09 | <i>vanA, vanHA, vanRA, vanRB, vanSA, vanSB, vanXA, vanYA, vanZA</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanR, vanS, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanR-B, VanS-A, VanS-B, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanR-B, VanS-A, VanS-B, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE10 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE11 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE12 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE13 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |
| VRE14 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |

| centre | 1 | 2 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|--------|--|--------|--------|--------|---|---|--------|--------|---|--------|--------|
| VRE15 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-A, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |
| VRE16 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE17 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE18 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE19 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE20 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE21 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE22 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |

| centre | 1 | 2 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|--------|--|--------|--------|--------|---|---|--------|--------|---|--------|--------|
| VRE23 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE24 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE25 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE26 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE27 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |
| VRE28 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE29 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE30 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |

| centre | 1 | 2 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|--------|--|--------|--------|--------|---|---|--------|--------|---|--------|--------|
| VRE31 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE32 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE33 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |
| VRE34 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |
| VRE35 | <i>vanB, vanHB, vanRB, vanSB, vanXB</i> | VanHBX | VanHBX | VanHBX | <i>vanB, vanH-B, vanR, vanS, vanW, vanX-B, vanY-B</i> | <i>VanA-B, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX | <i>VanB, VanH-B, VanR-B, VanS-B, VanW-B, VanX-B, VanY-B</i> | VanHBX | VanHBX |
| VRE36 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE37 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE38 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |

| centre | 1 | 2 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|--------|--|--------|--------|--------|---|---|--------|--------|---|--------|--------|
| VRE39 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |
| VRE40 | <i>vanA, vanHA, vanRA, vanSA, vanXA, vanYA, vanZ</i> | VanHAX | VanHAX | VanHAX | <i>vanA, vanH-A, vanR, vanS, vanX-A, vanY-A, vanZ-A</i> | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX | <i>VanA, VanH-A, VanR-A, VanS-A, VanX-A, VanY-A, VanZ-A</i> | VanHAX | VanHAX |