

Supplementary Table 1. Comparison of NG-Test CTX-M MULTI and NG-Test Carba 5 results with reference results

| Sample number | Organism Identification by MALDI-TOF | NG-Test CTX-M Multi Results | NG-Test Carba 5 Results | BD Phoenix 100 ESBL Results | BD Phoenix 100 CPO Detect Results | Easyplex SuperBug CRE Results | Cepheid Carba-R PCR Results |
|---------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------|-------------------------|-----------------------------|-----------------------------------|-------------------------------|-----------------------------|
| Isolates (1-32) were spiked in BD BACTEC bottles to verify the performance of NG-Test CTX-M Multi | | | | | | | |
| 1. | <i>Salmonella typhi</i> | Positive | ND | Positive | Negative | Positive | ND |
| 2. | <i>Salmonella typhi</i> | Positive | ND | Positive | Negative | Positive | ND |
| 3. | <i>Escherichia coli</i> | Positive | ND | Positive | Negative | Positive | ND |
| 4. | <i>Escherichia coli</i> | Positive | ND | Positive | Negative | Positive | ND |
| 5. | <i>Escherichia coli</i> | Positive | ND | Positive | Negative | Positive | ND |
| 6. | <i>Escherichia coli</i> | Positive | ND | Positive | Negative | Positive | ND |
| 7. | <i>Escherichia coli</i> | Positive | ND | Positive | Negative | Positive | ND |
| 8. | <i>Escherichia coli</i> | Positive | ND | Positive | Negative | ND | ND |
| 9. | <i>Escherichia coli</i> | Positive | ND | Positive | Negative | ND | ND |
| 10. | <i>Escherichia coli</i> | Positive | ND | Positive | Negative | ND | ND |
| 11. | <i>Escherichia coli</i> | Positive | ND | Positive | Negative | ND | ND |
| 12. | <i>Escherichia coli</i> | Positive | ND | Positive | Negative | ND | ND |
| 13. | <i>Klebsiella pneumoniae</i> | Positive | ND | Positive | Negative | Positive | ND |
| 14. | <i>Klebsiella pneumoniae</i> | Positive | ND | Positive | Negative | Positive | ND |
| 15. | <i>Klebsiella pneumoniae</i> | Positive | ND | Positive | Negative | Positive | ND |
| 16. | <i>Klebsiella pneumoniae</i> | Positive | ND | Positive | Negative | Positive | ND |
| 17. | <i>Klebsiella pneumoniae</i> | Positive | ND | Positive | Negative | Positive | ND |
| 18. | <i>Klebsiella pneumoniae</i> | Positive | ND | Positive | Negative | ND | ND |
| 19. | <i>Klebsiella pneumoniae</i> | Positive | ND | Positive | Negative | ND | ND |
| 20. | <i>Klebsiella pneumoniae</i> | Positive | ND | Positive | Negative | ND | ND |
| 21. | <i>Serratia marcescens</i> | Negative | ND | Negative | Negative | ND | ND |
| 22. | <i>Serratia marcescens</i> | Negative | ND | Negative | Negative | ND | ND |

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| 23. | <i>Serratia marcescens</i> | Negative | ND | Negative | Negative | ND | ND |
| 24. | <i>Enterobacter cloacae</i> | Negative | ND | Negative | Negative | ND | ND |
| 25. | <i>Escherichia coli</i> | Negative | ND | Negative | Negative | Negative | ND |
| 26. | <i>Escherichia coli</i> | Negative | ND | Negative | Negative | Negative | ND |
| 27. | <i>Escherichia coli</i> | Negative | ND | Negative | Negative | Negative | ND |
| 28. | <i>Klebsiella pneumoniae</i> | Negative | ND | Negative | Negative | Negative | ND |
| 29. | <i>Klebsiella pneumoniae</i> | Negative | ND | Negative | Negative | Negative | ND |
| 30. | <i>Klebsiella pneumoniae</i> | Negative | ND | Negative | Negative | Negative | ND |
| 31. | <i>Klebsiella pneumoniae</i> | Negative | ND | Negative | Negative | Negative | ND |
| 32. | <i>Klebsiella pneumoniae</i> | Negative | ND | Negative | Negative | ND | ND |
| Isolates (33-65) were spiked in BD BACTEC bottles to verify the performance of NG-Test Carba 5 | | | | | | | |
| 33. | <i>Escherichia coli</i> | ND | Positive OXA-48-like | Negative | Class D CPO | ND | Positive OXA-48-like |
| 34. | <i>Escherichia coli</i> | ND | Positive OXA-48-like | Negative | Class D CPO | ND | Positive OXA-48-like |
| 35. | <i>Escherichia coli</i> | ND | Positive NDM-like | Negative | Class B CPO | ND | Positive NDM-like |
| 36. | <i>Escherichia coli</i> | ND | Positive NDM-like | Negative | Class B CPO | ND | Positive NDM-like |
| 37. | <i>Escherichia coli</i> | ND | Positive NDM-like | Negative | Class B CPO | ND | Positive NDM-like |
| 38. | <i>Escherichia coli</i> | ND | Positive NDM-like | Negative | Class B CPO | ND | Positive NDM-like |
| 39. | <i>Escherichia coli</i> | ND | Positive IMP-like | Negative | Class B CPO | ND | Positive IMP-like |
| 40. | <i>Escherichia coli</i> | ND | Positive IMP-like and VIM1-like | Negative | Class B CPO | ND | Positive IMP-like and VIM1-like |
| 41. | <i>Klebsiella pneumoniae</i> | ND | Positive KPC-like | Negative | Class A CPO | ND | Positive KPC-like |
| 42. | <i>Klebsiella pneumoniae</i> | ND | Positive VIM1-like | Negative | Class B CPO | ND | Positive VIM1-like |
| 43. | <i>Klebsiella pneumoniae</i> | ND | Positive OXA-48-like and NDM-like | Negative | CPO Producer | ND | Positive OXA-48-like and NDM-like |
| 44. | <i>Klebsiella pneumoniae</i> | ND | Positive OXA-48-like and NDM-like | Negative | CPO Producer | ND | Positive OXA-48-like and NDM-like |
| 45. | <i>Klebsiella pneumoniae</i> | ND | Positive OXA-48-like and NDM-like | Negative | CPO Producer | ND | Positive OXA-48-like and NDM-like |

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| 46. | <i>Klebsiella pneumoniae</i> | ND | Positive OXA-48-like | Negative | Class D CPO | ND | Positive OXA-48-like |
| 47. | <i>Klebsiella pneumoniae</i> | ND | Positive OXA-48-like | Negative | Class D CPO | ND | Positive OXA-48-like |
| 48. | <i>Klebsiella pneumoniae</i> | ND | Positive NDM-like | Negative | Class B CPO | ND | Positive NDM-like |
| 49. | <i>Klebsiella pneumoniae</i> | ND | Positive IMP-like and VIM1-like | Negative | Class B CPO | ND | Positive IMP-like and VIM1-like |
| 50. | <i>Klebsiella pneumoniae</i> | ND | Negative | Negative | Negative | ND | Negative |
| 51. | <i>Klebsiella pneumoniae</i> | ND | Negative | Negative | Negative | ND | Negative |
| 52. | <i>Klebsiella pneumoniae</i> | ND | Negative | Negative | Negative | ND | Negative |
| 53. | <i>Klebsiella pneumoniae</i> | ND | Negative | Negative | Negative | ND | Negative |
| 54. | <i>Klebsiella pneumoniae</i> | ND | Negative | Negative | Negative | ND | Negative |
| 55. | <i>Escherichia coli</i> | ND | Negative | Positive | Negative | ND | Negative |
| 56. | <i>Escherichia coli</i> | ND | Negative | Positive | Negative | ND | Negative |
| 57. | <i>Escherichia coli</i> | ND | Negative | Negative | Negative | ND | Negative |
| 58. | <i>Escherichia coli</i> | ND | Negative | Negative | Negative | ND | Negative |
| 59. | <i>Escherichia coli</i> | ND | Negative | Negative | Negative | ND | Negative |
| 60. | <i>Escherichia coli</i> | ND | Negative | Negative | Negative | ND | Negative |
| 61. | <i>Escherichia coli</i> | ND | Negative | Negative | Negative | ND | Negative |
| 62. | <i>Serratia marcescens</i> | ND | Negative | Negative | Negative | ND | Negative |
| 63. | <i>Serratia marcescens</i> | ND | Negative | Negative | Negative | ND | Negative |
| 64. | <i>Serratia marcescens</i> | ND | Negative | Negative | Negative | ND | Negative |
| 65. | <i>Enterobacter cloacae</i> | ND | Negative | Negative | Negative | ND | Negative |
| Isolates (66-114) are positive blood culture that were tested prospectively with both NG CTX-M Multi test and Carba 5 test | | | | | | | |
| 66. | <i>Escherichia coli</i> | Positive | Negative | Positive | Negative | ND | ND |
| 67. | <i>Escherichia coli</i> | Positive | Negative | Positive | Negative | ND | ND |
| 68. | <i>Escherichia coli</i> | Negative | Positive OXA-48-like | Negative | Class D CPO | ND | ND |
| 69. | <i>Escherichia coli</i> | Negative | Positive NDM-like | Negative | Class B CPO | ND | ND |

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| 70. | <i>Escherichia coli</i> | Negative | Negative | Negative | Negative | ND | ND |
| 71. | <i>Escherichia coli</i> | Negative | Negative | Negative | Negative | ND | ND |
| 72. | <i>Escherichia coli</i> | Negative | Negative | Negative | Negative | ND | ND |
| 73. | <i>Escherichia coli</i> | Negative | Negative | Negative | Negative | ND | ND |
| 74. | <i>Escherichia coli</i> | Negative | Negative | Negative | Negative | ND | ND |
| 75. | <i>Escherichia coli</i> | Negative | Negative | Negative | Negative | ND | ND |
| 76. | <i>Escherichia coli</i> | Negative | Negative | Negative | Negative | ND | ND |
| 77. | <i>Escherichia coli</i> | Negative | Negative | Negative | Negative | ND | ND |
| 78. | <i>Klebsiella pneumoniae</i> | Positive | Negative | Negative* | Negative | ND | ND |
| 79. | <i>Klebsiella pneumoniae</i> | Positive | Negative | Negative* | Negative | ND | ND |
| 80. | <i>Klebsiella pneumoniae</i> | Positive | Negative | Positive | Negative | ND | ND |
| 81. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 82. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 83. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 84. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 85. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 86. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 87. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 88. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 89. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 90. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 91. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 92. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 93. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 94. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 95. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 96. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |

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| 97. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 98. | <i>Klebsiella pneumoniae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 99. | <i>Klebsiella oxytoca</i> | Negative | Negative | Negative | Negative | ND | ND |
| 100. | <i>Klebsiella variicola</i> . | Negative | Negative | Negative | Negative | ND | ND |
| 101. | <i>Enterobacter cloacae</i> | Positive | Negative | Negative* | Negative | ND | ND |
| 102. | <i>Enterobacter cloacae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 103. | <i>Enterobacter cloacae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 104. | <i>Enterobacter cloacae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 105. | <i>Enterobacter cloacae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 106. | <i>Enterobacter cloacae</i> | Negative | Negative | Negative | Negative | ND | ND |
| 107. | <i>Serratia marcescens</i> | Negative | Negative | Negative | Negative | ND | ND |
| 108. | <i>Serratia marcescens</i> | Negative | Negative | Negative | Negative | ND | ND |
| 109. | <i>Serratia marcescens</i> | Negative | Negative | Negative | Negative | ND | ND |
| 110. | <i>Serratia marcescens</i> | Negative | Negative | Negative | Negative | ND | ND |
| 111. | <i>Serratia marcescens</i> | Negative | Negative | Negative | Negative | ND | ND |
| 112. | <i>Serratia marcescens</i> | Negative | Negative | Negative | Negative | ND | ND |
| 113. | <i>Salmonella spp. not typhi</i> | Negative | Negative | Negative | Negative | ND | ND |
| 114. | <i>Proteus mirabilis</i> | Negative | Negative | Negative | Negative | ND | ND |

ND = Not Done

*Flagged as possible ESBLs by BDxpert, Confirmed by manual susceptibility method as an ESBL producer

Inoculum source is pellet from positive blood cultures for NG-Test CTX-M and NG-Test Carba 5

Inoculum source is isolated colonies from culture for BD Phoenix tests and Cepheid Carba-R PCR

Inoculum source is aliquot from the positive blood cultures for Easyplex SuperBug CRE Result