

PCR-/NAT Carbapenemasen (RV 544) Mai 2025



Tabelle 1: Probenzusammensetzung und erwartetes Ergebnis.

Sample composition and expected results.

Proben Nr.	Erwartet / expected		Probenzusammensetzung / Sample composition
544A 250520 01	+++	61 / 73,75	<i>K. pneumoniae</i> NDM-5+OXA-48 (~ 1x10 ⁶ genome copies/mL)
544A 250520 02	Ø	62	<i>Escherichia coli</i> K12
544A 250520 03	+++	61 / 75	<i>E. cloacae</i> NDM-7 (~ 1x10 ⁶ genome copies/mL)
544A 250520 04	+++	61 / 71	<i>K. pneumoniae</i> KPC-3 (~ 1x10 ⁶ genome copies/mL)

Tabelle 2: Häufigkeit der Mitteilung verschiedener Befunde.

Absolute numbers of reported individual results.

<i>n</i> = 94		Proben Nr. (Sample no.)				Inhibition				
Befund Result		01	02	03	04		01	02	03	04
Positiv	94	3	93	91		n.d.	1	1	1	1
Negativ	0	91	1	3		nein no	93	93	93	93
Fraglich Questionable	0	0	0	0		ja yes	0	0	0	0

Tabelle 3: Häufigkeit richtig positiver und richtig negativer NAT-Befunde bei Anwenden verschiedener Methoden.

Absolute numbers and relative frequency of reported true positive and true negative results among various NAT methods.

NAT-Methode [Code] (total number *)	NAT richtig positiv True positive results						NAT richtig negativ	
	01		03		04		02	
	Absolut Absolute	%	Absolut Absolute	%	Absolut Absolute	%	Absolut Absolute	%
AID Carbapenemase (n= 3)	3	100	3	100	3	100	3	100
Amplex eazypex SuperBug basic (n= 4)	4	100	4	100	4	100	4	100
eazypex superbug complete A/B/C (n= 9)	9	100	9	100	8	89	9	100
eazypex superbug expert (n= 1)	1	100	1	100	1	100	1	100
BD MAX Check-Points CPO assay (n= 3)	3	100	3	100	3	100	2	67
Bruker Carbaplex IVD PCR (n= 1)	1	100	1	100	1	100	1	100
Cepheid Xpert Carba-R (n= 45)	45	100	44	98	44	98	43	96

MIKROGEN ampliCube MDR Panel 1- 5 (n= 2)	2	100	2	100	1	50	2	100
Seegene Allplex Entero-DR (n= 11)	11	100	11	100	11	100	11	100
TIB Molbiol Modular Carbapenemase (n= 3)	3	100	3	100	3	100	3	100
<i>In house</i> PCR assay (n= 9)	9	100	9	100	9	100	9	100
Other commercial tests (n= 3)	3	100	3	100	3	100	3	100

Comments:

1. Ninety-three of the 94 participants reported dedicated carbapenemase identification (carbapenemase genes). With the exception of two laboratories, all reported results were correct.
1. The following tests are listed under "Other commercial tests": Streck ARM-D Kits (1x), BioMerieux BioFire FILMARRAY TORCH (1x) and ROCHE Cobas 5800 (1x).