

PCR-/NAT Carbapenemasen (RV 544) Mai 2024



Tabelle 1: Probenzusammensetzung und erwartetes Ergebnis.

Sample composition and expected results.

Proben Nr.	Erwartet / expected		Probenzusammensetzung / Sample composition
544A 240521 01	+++	61 / 73	<i>E. coli</i> OXA-162 (~ 1x10 ⁶ genome copies/mL)
544A 240521 02	+++	61 / 71	<i>K. pneumoniae</i> KPC-2 (~ 1x10 ⁶ genome copies/mL)
544A 240521 03	∅	62	<i>Escherichia coli</i> K12
544A 240521 04	+++	61 / 75	<i>E. coli</i> NDM-19 (~ 1x10 ⁶ genome copies/mL)

Tabelle 2: Häufigkeit der Mitteilung verschiedener Befunde.

Absolute numbers of reported individual results.

n = 91	Proben Nr. (Sample no.)					Inhibition			
	01	02	03	04		01	02	03	04
Befund <i>Result</i>									
Positiv	91	90	1	86	n.d.	0	0	0	0
Negativ	0	1	90	5	nein <i>no</i>	91	91	91	91
Fraglich <i>Questionable</i>	0	0	0	0	ja <i>yes</i>	0	0	0	0

Tabelle 3: Häufigkeit richtig positiver und richtig negativer NAT-Befunde bei Anwendern 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 <i>True positive results</i>						NAT richtig negativ	
	01		02		04		03	
	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%
AID Carbapenemase (n= 3)	3	100	3	100	1	33	3	100
Amplex eazyplex SuperBug basic (n= 2)	2	100	2	100	2	100	2	100
eazyplex superbug complete A/B/C (n= 8)	8	100	7	88	7	88	8	100
eazyplex superbug expert (n= 3)	3	100	3	100	3	100	3	100
BD MAX Check-Points CPO assay (n= 3)	3	100	3	100	3	100	3	100
Bruker Carbaplex IVD PCR (n= 1)	1	100	1	100	1	100	1	100
Cepheid Xpert Carba-R (n= 41)	41	100	41	100	41	100	41	100

Seegene Allplex Entero-DR (n= 12)	12	100	12	100	12	100	11	92
LightMix Modular Carbapenemase (n= 4)	4	100	4	100	4	100	4	100
<i>In house</i> PCR assay (n= 9)	9	100	9	100	8	89	9	100
Other commercial tests (n= 5)	5	100	5	100	4	80	5	100

Comments:

1. All participants reported dedicated carbapenemase identification (carbapenemase genes). With the exception of one laboratory, all reported results were correct.
2. The following tests are listed under "Other commercial tests": MIKROGEN ampliCube MDR Panels (2x), BioMerieux BioFire FILMARRAY PN plus Panel (1x) and ROCHE Cobas 5800 (1x).