

PCR-/NAT Carbapenemasen (RV 544) November 2024



Tabelle 1: Probenzusammensetzung und erwartetes Ergebnis.

Sample composition and expected results.

Proben Nr.	Erwartet / expected		Probenzusammensetzung / Sample composition
544A 241015 01	+++	61 / 73,75	<i>Klebsiella pneumoniae</i> NDM-5 + OXA-232 (~ 1x10 ⁶ genome copies/mL)
544A 241015 02	+++	61 / 72	<i>Citrobacter freundii</i> VIM-4 (~ 1x10 ⁶ genome copies/mL)
544A 241015 03	+++	61 / 73	<i>Escherichia coli</i> OXA-48 (~ 1x10 ⁶ genome copies/mL)
544A 241015 04	∅	62	<i>Escherichia coli</i> K12

Tabelle 2: Häufigkeit der Mitteilung verschiedener Befunde.

Absolute numbers of reported individual results.

n = 88	Proben Nr. (Sample no.)					Inhibition			
	01	02	03	04		01	02	03	04
Befund <i>Result</i>									
Positiv	88	85	85	1	n.d.	1	1	1	1
Negativ	0	2	3	87	nein <i>no</i>	87	87	87	87
Fraglich <i>Questionable</i>	0	1	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		03		04	
	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%
AID Carbapenemase (n= 3)	3	100	3	100	3	100	3	100
Amplex eazyplex SuperBug basic (n= 2)	2	100	2	100	2	100	2	100
eazyplex superbug complete A/B/C (n= 9)	9	100	9	100	9	100	9	100
eazyplex superbug expert (n= 2)	2	100	2	100	2	100	2	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= 43)	43	100	40[§]	93	41	95	42	98
Seegene Allplex Entero-DR (n= 8)	8	100	8	100	8	100	8	100
LightMix Modular Carbapenemase (n= 4)	4	100	4	100	4	100	4	100
In house PCR assay (n= 9)	9	100	9	100	9	100	9	100
Other commercial tests (n= 4)	4	100	4	100	3	75	4	100

The following tests are listed under "Other commercial tests": MIKROGEN ampliCube MDR Panels (2x), Amplex eazyplex SuperBug CRE (1x) and BioMerieux BioFire FILMARRAY TORCH (1x).

[§] Fraglich *Due to reporting questionable results, the number of true results has been reduced.*

Comments:

1. Carbapenemase identification (carbapenemase genes) was reported by 87 laboratories. With very few exceptions, all reported results were accurate.