

## PCR-/NAT Carbapenemasen (RV 544) November 2016



**Tabelle 1: Probenzusammensetzung und erwartetes Ergebnis.**

*Sample composition and expected results.*

	<i>Erwartet / expected</i>		<i>Probenzusammensetzung / Sample composition</i>
1625441	+++	61 / 71,72	<i>K. oxytoca</i> KPC-3, VIM-1 (~ 1x10 <sup>7</sup> genome copies/mL)
1625442	+++	61 / 73,75	<i>K. pneumoniae</i> NDM-1, OXA-48 (~ 1x10 <sup>7</sup> genome copies/mL)
1625443	+++	61 / 73	<i>K. pneumoniae</i> OXA-232 (~ 1x10 <sup>7</sup> genome copies/mL)
1625444	∅	62	<i>Escherichia coli</i> K12

**Tabelle 2: Häufigkeit der Mitteilung verschiedener Befunde.**

*Absolute numbers of reported individual results.*

<i>n = 63</i>	<i>Probennummer (Sample no.)</i>				<i>Inhibition</i>				
	<i>1625441</i>	<i>1625442</i>	<i>1625443</i>	<i>1625444</i>	<i>1625441</i>	<i>1625442</i>	<i>1625443</i>	<i>1625444</i>	
<i>Befund Result</i>									
<b>Positiv</b>	63 <sup>1)</sup>	63 <sup>2)</sup>	58 <sup>3)</sup>	2 <sup>4)</sup>	n.d.	0	0	0	0
<b>Negativ</b>	0	0	5	61	nein no	63	63	63	63
<b>Fraglich Questionable</b>	0	0	0	0	ja yes	0	0	0	0

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

<b>NAT-Methode</b> [Code] (total number *)	<b>NAT richtig positiv</b> <i>True positive results</i>			<b>NAT richtig negativ</b> <i>True negative results</i>		
	<b>Absolut</b> <i>Absolute</i>	<b>Relativ</b> <i>Relative</i>	<b>%</b>	<b>Absolut</b> <i>Absolute</i>	<b>Relativ</b> <i>Relative</i>	<b>%</b>
Check direct CPE oder MDR [21] (n =7)	21	21 / 21	100	6	6 / 7	86
Hyplex Superbug [22] (n =2)	5	5 / 6	83	2	2 / 2	100
Hyplex Eazyplex [23] (n =4)	9	9 / 12	75	4	4 / 4	100
LightMix (TIB Molbiol) [24] (n =5)	15	15 / 15	100	5	5 / 5	100
GeneXpert CarbaR [25] (n =29)	87	87 / 87	100	28	28 / 29	97
Commercial assay / kit [27] (n =4)	12	12 / 12	100	4	4 / 4	100
<i>In house</i> PCR assay [28] (n = 13)	38	38 / 39	97	13	13 / 13	100

\* Durch Mehrfachnennung oder fehlende Angabe kann die absolute Zahl der Ergebnisse (Tab. 2) von der Anzahl der Teilnehmer abweichen.  
*Due to reporting results of multiple assay systems or missing specifications, the effective numbers are not correlating with the number of participants.*

- Comments:**
- 1) One participant did not detect the VIM-1 gene in sample # 1625441 and one reported the (wrong) detection of the OXA gene.
  - 2) Three participants did not detect the NDM-1 gene in sample # 1625442 and one reported the (wrong) detection of the VIM gene.
  - 3) Two participants reported the (wrong) detection of the VIM gene in sample # 1625443.
  - 4) One participant reported the (wrong) detection of VIM and OXA genes in sample # 1625444 and another laboratory reported the (wrong) detection of KPC und VIM genes.