

PCR-/NAT *Bordetella pertussis*
(RV 532) Juni 2017



Tabelle 1: Probenzusammensetzung und erwartetes Ergebnis.

Sample composition and expected results.

	<i>Erwartet / expected</i>		<i>Probenzusammensetzung / Sample composition</i>
1715321	++++	61	<i>Bordetella pertussis</i> (~ 1x10 ⁵ CFU/mL)
1715322	∅	62	<i>Escherichia coli</i> K12
1715323	∅	62	<i>Bordetella holmesii</i> (IS481-pos.) (~ 1x10 ⁵ CFU/mL)
1715324	∅	62	<i>Bordetella parapertussis</i> (~ 1x10 ⁵ CFU/mL)

Tabelle 2: Häufigkeit der Mitteilung verschiedener Befunde.

Absolute numbers of reported individual results.

<i>n</i> = 155	Probennummer (Sample no.)				Inhibition				
	1715321	1715322	1715323	1715324	1715321	1715322	1715323	1715324	
Befund <i>Result</i>									
Positiv	148	2	103 ¹⁾	5	n.d.	1	1	1	1
Negativ	7	153	51	149	nein <i>no</i>	154	154	154	154
Fraglich <i>Questionable</i>	0	0	1	1	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 <i>True negative results</i>		
	Absolut <i>Absolute</i>	Relativ <i>Relative</i>	%	Absolut <i>Absolute</i>	Relativ <i>Relative</i>	%
TIB Molbiol LightMix BP [20] (n = 11)	11	11 / 11	100	22	22 / 33	67
Diagenode <i>B.pertussis</i> [21] (n = 10)	10	10 / 10	100	20	20 / 30	67
GenoQuick <i>Bordetella</i> [22] (n = 6)	6	6 / 6	100	12	12 / 18	67
RIDAGENE <i>Bordetella</i> [23] (n = 18)	18	18 / 18	100	50	50 / 54	92
Other commercial tests [27] (n = 51)	47	47 / 51	92	117	117 / 152 [§]	77
<i>In house</i> PCR assay [28] (n = 57)	54	54 / 57	95	127	127 / 170 [§]	75
Andere / k.A. / other [29] (n = 3)	3	3 / 3	100	7	7 / 9	78

[§] Due to reporting questionable results, the number of true results (denominator in the „relative“ column) has been reduced.

* 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⁾ Due to the well-known cross-reaction of *B. holmesii* in IS 481-specific PCR assays for *B. pertussis*, positive PCR results with sample #1715323 were not rated as false-positive.