

**PCR-/NAT *Bordetella pertussis*
 (RV 532) November 2022**



Tabelle 1: Probenzusammensetzung und erwartetes Ergebnis.

Sample composition and expected results.

	<i>Erwartet / expected</i>		<i>Probenzusammensetzung / Sample composition</i>
2225321	++	61	<i>Bordetella pertussis</i> (~ 5x10 ⁴ CFU/mL)
2225322	∅	62	<i>Escherichia coli</i> K12
2225323	∅	62	<i>Bordetella parapertussis</i> (~ 5x10 ⁴ CFU/mL)
2225324	∅	62	<i>Bordetella holmesii</i> (~ 5x10 ⁴ CFU/mL)

Tabelle 2: Häufigkeit der Mitteilung verschiedener Befunde.

Absolute numbers of reported individual results.

<i>n = 158</i>	<i>Probennummer (Sample no.)</i>					<i>Inhibition</i>			
	<i>2225321</i>	<i>2225322</i>	<i>2225323</i>	<i>2225324</i>		<i>2225321</i>	<i>2225322</i>	<i>2225323</i>	<i>2225324</i>
Befund <i>Result</i>									
Positiv	152	0	6	98	n.d.	1	1	1	1
Negativ	6	158	152	55	nein <i>no</i>	157	157	157	157
Fraglich <i>Questionable</i>	0	0	0	5	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		NAT richtig negativ <i>True negative results</i>					
	2225321		2225322		2225323		2225324	
	<i>Absolut</i> <i>Absolute</i>	<i>%</i>	<i>Absolut</i> <i>Absolute</i>	<i>%</i>	<i>Absolut</i> <i>Absolute</i>	<i>%</i>	<i>Absolut</i> <i>Absolute</i>	<i>%</i>
AID CAP Bacteria (n = 6)	6	100	6	100	6	100	0	0
ARGENE <i>Bordetella</i> R-GENE (n = 2)	2	100	2	100	2	100	0	0
Altona diag. RealStar <i>Bordetella</i> (n = 3)	3	100	3	100	3	100	0	0
AmpliGnost <i>B.pert.</i> / <i>B.parapert.</i> (n = 2)	2	100	2	100	2	100	0	0
FILMARRAY Resp. Panel 2.1 plus (n = 1)	1	100	1	100	1	100	1	100
BioGX <i>Bordetella</i> speciation toxin (n = 3)	3	100	3	100	2	67	1	33
HAIN FluoroType <i>Bordetella</i> (n = 9)	9	100	9	100	9	100	0	0

DiaSorin Simplexa Bordetella Direct (n = 6)	6	100	6	100	5	83	0	0
Diagenode B. pert. / B. parapert. (n = 1)	1	100	1	100	0	0	0	0
FTD Bordetella (n = 1)	1	100	1	100	1	100	0	0
GeneProof B. pert. / B. parapert. (n = 10)	10	100	10	100	9	90	10	100
HOLOGIC Panther Bordetella (n = 4)	4	100	4	100	4	100	0	0
ampliCube Resp. panel 2 (n = 15)	15	100	15	100	15	100	4	27
Meridian Alethia Pertussis (n = 3)	3	100	3	100	3	100	0	0
Solana Bordetella complete assay (n = 4)	4	100	4	100	4	100	0	0
Seegene Allplex Resp. Panel 4 (n = 14)	11	79	14	100	12	86	11*	79
LightMix B. pert. (n = 6)	6	100	6	100	6	100	0	0
RIDAGENE Bordetella (n = 21)	21	100	21	100	21	100	15*	71
In house PCR assay [28] (n = 32)	32	100	32	100	32	100	7*	22
Other commercial tests (n = 15)	12	80	15	100	15	100	6	40

* Questionable

Comments:

1. Unter "Andere kommerzielle Testsysteme" sind folgende Testsysteme aufgeführt: Seegene Allplex Pneumobacter Assay (3x), PathoFinder RespiFinder 2Smart (1x), Luminex ARIES Bordetella Assay (2x), Roche ePlex Respiratory Pathogen Panel 2 (Vorher: GenMark Dx) (2x), Roche Diagnostics (1x), CerTest VIASURE Bordetella Real Time PCR Detection Kit (1x), QIAGEN QIAstat-Dx Respiratory Sars CoV-2 panel (1x), AusDiagnostics (1x) und Bioeksen Bio-Speedy (1x).