

**PCR-/NAT *Bordetella pertussis***  
**(RV 532) Mai 2024**



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

*Sample composition and expected results.*

Proben Nr.	Erwartet / expected		Probenzusammensetzung / Sample composition
532A 240521 01	<b>+</b>	<b>61</b>	<i>Bordetella pertussis</i> (~ 5x10 <sup>3</sup> CFU/mL)
532A 240521 02	<b>∅</b>	<b>62</b>	<i>Bordetella bronchiseptica</i> (~ 5x10 <sup>5</sup> CFU/mL)
532A 240521 03	<b>∅</b>	<b>62</b>	<i>Bordetella bronchiseptica</i> (~ 1x10 <sup>6</sup> CFU/mL)
532A 240521 04	<b>++</b>	<b>61</b>	<i>Bordetella pertussis</i> (~ 5x10 <sup>4</sup> CFU/mL)

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

*Absolute numbers of reported individual results.*

<i>n</i> = 170	Proben Nr. (Sample no.)				Inhibition				
	Befund Result	01	02	03	04	01	02	03	04
<b>Positiv</b>	<b>138</b>	<b>1</b>	<b>0</b>	<b>167</b>	n.d.	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Negativ</b>	<b>30</b>	<b>169</b>	<b>170</b>	<b>2</b>	nein no	<b>168</b>	<b>168</b>	<b>168</b>	<b>168</b>
<b>Fraglich</b> Questionable	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	ja yes	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Tabelle 3: Häufigkeit richtig positiver und richtig negativer NAT-Befunde bei Anwenden 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 True positive results				NAT richtig negativ True negative results			
	01		04		02		03	
	Absolut Absolute	%	Absolut Absolute	%	Absolut Absolute	%	Absolut Absolute	%
AID CAP Bacteria (n = 5)	<b>4</b>	<b>80</b>	<b>5</b>	<b>100</b>	<b>5</b>	<b>100</b>	<b>5</b>	<b>100</b>
ARGENE Bordetella R-GENE (n = 1)	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>
Altona diag. RealStar Bordetella (n = 5)	<b>4</b>	<b>80</b>	<b>5</b>	<b>100</b>	<b>5</b>	<b>100</b>	<b>5</b>	<b>100</b>
AmpliGnost B.pert. / B.parapert. (n = 1)	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>
AusDiagnostics Resp. Pathogens 24-well (n = 1)	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>
Bio-Evolution B. pert. / B. parapert. (n = 2)	<b>2</b>	<b>100</b>	<b>2</b>	<b>100</b>	<b>2</b>	<b>100</b>	<b>2</b>	<b>100</b>
BioGX Bordet. Speciation plus toxin (n = 4)	<b>4</b>	<b>100</b>	<b>4</b>	<b>100</b>	<b>4</b>	<b>100</b>	<b>4</b>	<b>100</b>
FILMARRAY Resp. Panel 2.1 plus (n = 3)	<b>1</b>	<b>33</b>	<b>3</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>3</b>	<b>100</b>
Bruker-HAIN FluoroType Bordetella (n = 3)	<b>3</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>2</b>	<b>67</b>	<b>3</b>	<b>100</b>

DiaSorin Simplexa Bordetella Direct (n = 7)	7	100	7	100	7	100	7	100
GeneProof B. pert. / B. parapert. (n = 10)	7	70	10	100	10	100	10	100
EasyScreen Respiratory pathogen (n = 1)	1	100	1	100	1	100	1	100
HOLOGIC Panther Bordetella (n = 8)	8	100	8	100	8	100	8	100
Ingenetix BactoReal B. pertussis (n = 1)	1	100	1	100	1	100	1	100
ampliCube Resp. panel 2 (n = 17)	17	100	17	100	17	100	17	100
Meridian Alethia Pertussis (n = 2)	2	100	2	100	2	100	2	100
QIAstat-Dx Respiratory Sars CoV-2 panel (n = 3)	3	100	3	100	3	100	3	100
Solana Bordetella complete assay (n = 2)	1	50	2	100	2	100	2	100
Seegene Allplex Pneumobacter (n = 10)	10	100	10	100	10	100	10	100
Seegene Allplex Resp. Panel 4 (n = 22)	7	32	20	91	22	100	22	100
LightMix B. pert. (n = 5)	4 <sup>§</sup>	100	4 <sup>§</sup>	100	5	100	5	100
RIDAGENE Bordetella (n = 19)	16 <sup>§</sup>	89	19	100	19	100	19	100
In house PCR assay [28] (n = 25)	21	84	25	100	25	100	25	100
Other commercial tests (n = 13)	12	92	13	100	13	100	13	100

<sup>§</sup> Fraglich Due to reporting questionable results, the number of true results has been reduced.

#### Comments:

1. The following tests are listed under "Other commercial tests": AB Analytica RQ ResP-BORD (1x), Altona FlexStar Bordetella PCR Detection Mix (1x), Anatolia Geneworks Bosphore B. pertussis/parapertussis Genotyping Kit (1x), BioGX Bordetella pertussis/parapertussis (1x), CerTest VIASURE Bordetella Real Time PCR Detection Kit (1x), DNA Technology B. pertussis real-time PCR Detection Kit (1x), ELITechGroup Bordetella ELITE MGB Kit (1x), Gerbion Diarella Bordetella (1x), PathoFinder RespiFinder 2Smart (1x), Roche Cobas 5800 (1x), Sacace Biotechnologies B.pertussis/B.parapertussis/B.bronchiseptica Real TM (1x) and TIB Molbiol LightMix Modular (1x).