

**PCR-/NAT *C. burnetii* & *B. anthracis*
 (RV 542) November 2019**



Tabelle 1: Probenzusammensetzung und erwartetes Ergebnis.
Sample composition and expected results.

	<i>Erwartet / expected</i>	<i>Probenzusammensetzung / Sample composition</i>
1925421	+ / +	<i>Coxiella burnetii</i> (~ 1x10 ⁴ genome copies/mL) <i>B. anthracis</i> Pasteur Stamm (~ 5x10 ³ genome copies/mL)
1925422	∅ / +++	<i>B. anthracis</i> Pasteur Stamm (~ 1x10 ⁶ genome copies/mL)
1925423	∅ / ∅	<i>Escherichia coli</i> K12
1925424	++ / ++	<i>Coxiella burnetii</i> (~ 5x10 ⁴ genome copies/mL) <i>B. anthracis</i> UR-1 Stamm (~ 5x10 ⁴ genome copies/mL)

Tabelle 2: Häufigkeit der Mitteilung verschiedener Befunde. Anmerkung: in dieser Tabelle sind nur die Ergebnisse für *Coxiella burnetii* dargestellt.
Absolute numbers of reported individual results.

Note: only the *C. burnetii*-specific results are depicted in this table

<i>n</i> = 41	Probennummer (Sample no.)				Inhibition				
	1925421	1925422	1925423	1925424	1925421	1925422	1925423	1925424	
Befund <i>Result</i>									
Positiv	41	1	1	41	n.d.	0	0	0	0
Negativ	0	39	40	0	nein <i>no</i>	41	41	41	41
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 Anwenden verschiedener Methoden. Anmerkung: in dieser Tabelle sind nur die Ergebnisse für *Coxiella burnetii* dargestellt.

Absolute numbers and relative frequency of reported true positive and true negative results among various NAT methods.

Note: only the *C. burnetii*-specific results are depicted in this table.

NAT-Methode [Code] (total number)	NAT richtig positiv <i>True positive results</i>				NAT richtig negativ <i>True negative results</i>			
	1925421		1925424		1925422		1925423	
	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%
LightMix <i>C. burnetii</i> [20] (n = 1)	1	100	1	100	1	100	1	100
Commercial assay / kit [27] (n = 7)	7	100	7	100	6 §	100	7	100
<i>In house</i> PCR assay [28] (n = 33)	33	100	33	100	32	97	32	97

Tabelle 4: Häufigkeit der Mitteilung verschiedener Befunde. Anmerkung: in dieser Tabelle sind nur die Ergebnisse für *Bacillus anthracis* dargestellt.

Absolute numbers of reported individual results.

*Note: only the **B. anthracis-specific results** are depicted in this table*

<i>n</i> = 22	Probennummer (Sample no.)					Inhibition			
	1925421	1925422	1925423	1925424		1925421	1925422	1925423	1925424
Befund <i>Result</i>									
Positiv	15	21	0	21	n.d.	0	0	0	0
Negativ	5 ¹⁾	1	22	1	nein <i>no</i>	22	22	22	22
Fraglich <i>Questionable</i>	2 ¹⁾	0	0	0	ja <i>yes</i>	0	0	0	0

Tabelle 5: Häufigkeit richtig positiver und richtig negativer NAT-Befunde bei Anwendern verschiedener Methoden. Anmerkung: in dieser Tabelle sind nur die Ergebnisse für *Bacillus anthracis* dargestellt.

Absolute numbers and relative frequency of reported true positive and true negative results among various NAT methods.

*Note: only the **B. anthracis-specific results** are depicted in this table.*

NAT-Methode [Code] (total number)	NAT richtig positiv <i>True positive results</i>						NAT richtig negativ	
	1925421		1925422		1925424		1925423	
	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%
LightMix <i>B. anthracis</i> [21] (n = 3)	1	33	2	67	1	100	3	100
Commercial assay / kit [27] (n =3)	2	67	3	100	2	100	3	100
<i>In house</i> PCR assay [28] (n = 16)	12 [§]	86	16	100	17 [§]	89	16	100

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

Comments: ¹⁾ As sample #1925421 contained a low number of *Bacillus anthracis* target organisms, negative PCR results were not rated “false negative” in this EQAS distribution.