

**PCR-/NAT *Borrelia burgdorferi*  
 (RV 535) November 2017**



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

	<i>Erwartet / expected</i>		<i>Probenzusammensetzung / Sample composition</i>
1725351	(+)	61/62	<i>Borrelia afzelii</i> (~ 5x10 <sup>2</sup> organisms/mL)
1725352	++	61	<i>Borrelia spielmanii</i> (~ 5x10 <sup>4</sup> organisms/mL)
1725353	∅	62	<i>Borrelia miyamotoi</i> (~ 5x10 <sup>4</sup> organisms/mL)
1725354	+++	61	<i>Borrelia afzelii</i> (~ 1x10 <sup>5</sup> organisms/mL)

**Tabelle 2: Häufigkeit der Mitteilung verschiedener Befunde.**  
*Absolute numbers of reported individual results.*

<i>n = 93</i>	<i>Probennummer (Sample no.)</i>				<i>Inhibition</i>				
	<i>1725351</i>	<i>1725352</i>	<i>1725353</i>	<i>1725354</i>	<i>1725351</i>	<i>1725352</i>	<i>1725353</i>	<i>1725354</i>	
<i>Befund Result</i>									
<b>Positiv</b>	54 <sup>1)</sup>	90	66	93	n.d.	0	0	0	0
<b>Negativ</b>	34 <sup>1)</sup>	3	26	0	nein no	93	93	93	93
<b>Fraglich</b> <i>Questionable</i>	5 <sup>1)</sup>	0	1	0	ja yes	0	0	0	0

**Tabelle 3: Häufigkeit richtig positiver und richtig negativer NAT-Befunde bei Anwenden verschiedener Methoden (ohne Probe # 1725351)**  
*Absolute numbers and relative frequency of reported true positive and true negative results among various NAT methods (without sample # 1725351).*

<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>
artus <i>Borrelia</i> LC Kit [20] (n = 16)	32	32 / 32	100	0	0 / 16	0
Demeditec GenFlow [21] (n = 2)	4	4 / 4	100	1	1 / 2	50
LightMix <i>Borrelia</i> [22] (n = 5)	10	10 / 10	100	2	2 / 5	40
Other/commercial tests [27] (n = 26)	51	51 / 52	98	7	7 / 26	27
<b>In house PCR assay</b> [28] (n = 46)	90	90 / 92	98	16	16 / 45 <sup>§</sup>	35

<sup>§</sup> 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:** <sup>1)</sup> As sample #1725351 contained a low number of *Borrelia afzelii* target organisms, negative PCR results were not rated “false negative” in this EQAS distribution.