

**PCR-/NAT *Borrelia burgdorferi*
 (RV 535) November 2010**



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

Gruppe A	Erwartet / expected		Probenzusammensetzung / Sample composition
1025351	+	61	<i>Borrelia bavariensis</i> , PBI (~ 1x10 ⁴ organisms/mL)
1025352	+++	61	<i>Borrelia burgdorferi sensu stricto</i> , PK2 (~ 1x10 ⁶ organisms/mL)
1025353	∅	62	<i>Escherichia coli</i> K12
1025354	∅	62	<i>Borrelia miyamotoi</i>

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

n = 99	Probennummer (Sample no.)					Inhibition			
	1025351	1025352	1025353	1025354		1025351	1025352	1025353	1025354
Befund <i>Result</i>									
Positiv	96	98	0	12 ¹⁾	n.d.	2	2	2	2
Negativ	3	1	99	85	nein <i>no</i>	97	97	97	96
Fraglich <i>Questionable</i>	0	0	0	2	ja <i>yes</i>	0	0	0	1

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>	%
RealArt <i>Borrelia</i> [20] (n = 14)	28	28 / 28	100	26	26 / 27 [§]	96
Demeditec GenFlow [21] (n = 10)	20	20 / 20	100	20	20 / 20	100
Other/commercial tests [27] (n = 13)	26	26 / 26	100	24	24 / 26	92
<i>In house</i> PCR assay [28] (n = 61)	118	118 / 122	97	112	112 / 121 [§]	93
Andere / k.A. / other [29] (n = 1)	2	2 / 2	100	2	2 / 2	100

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

Comments:¹⁾ Twelve of the 99 participants reported positive results for sample # 1025354. This could be due to a "simple" cross-contamination event and/or a cross-reactivity of the primer and probe sequences of the "*B.burgdorferi*-specific" PCR assays - see Discussion for more details.