

**PCR-/NAT *Borrelia burgdorferi*
 (RV 535) November 2013**



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

| | <i>Erwartet / expected</i> | | <i>Probenzusammensetzung / Sample composition</i> |
|---------|----------------------------|-----------|--|
| 1325351 | (++) | 61 | <i>Borrelia bissetii</i> (~1x10 ⁴ organisms/mL) |
| 1325352 | ∅ | 62 | <i>Escherichia coli</i> K12 (negative for <i>eae</i> and <i>hlyA</i>) |
| 1325353 | ++ | 61 | <i>Borrelia spielmanii</i> (~1x10 ⁴ organisms/mL) |
| 1325354 | ++ | 61 | <i>Borrelia afzelii</i> (~1x10 ⁴ organisms/mL) |

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

| <i>n = 96</i> | <i>Probennummer (Sample no.)</i> | | | | | <i>Inhibition</i> | | | |
|--|----------------------------------|----------------|----------------|----------------|-------------------|-------------------|----------------|----------------|----------------|
| | 1325351 | 1325352 | 1325353 | 1325354 | | 1325351 | 1325352 | 1325353 | 1325354 |
| Befund <i>Result</i> | | | | | | | | | |
| Positiv | 87 | 1 | 92 | 91 | n.d. | 1 | 1 | 1 | 1 |
| Negativ | 7¹⁾ | 95 | 4 | 5 | nein <i>no</i> | 95 | 95 | 95 | 95 |
| Fraglich <i>Questionable</i> | 2¹⁾ | 0 | 0 | 0 | ja <i>yes</i> | 0 | 0 | 0 | 0 |

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 <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> | % |
| artus <i>Borrelia</i> LC Kit [20] (n = 21) | 60 | 60 / 63 | 95 | 20 | 20 / 21 | 95 |
| Demeditec GenFlow [21] (n = 5) | 15 | 15 / 15 | 100 | 5 | 5 / 5 | 100 |
| LightMix <i>Borrelia</i> [22] (n = 4) | 12 | 12 / 12 | 100 | 4 | 4 / 4 | 100 |
| Other/commercial tests [27] (n = 13) | 36 | 36 / 38 [§] | 95 | 13 | 13 / 13 | 100 |
| <i>In house</i> PCR assay [28] (n = 53) | 147 | 147/158 [§] | 93 | 53 | 53 / 53 | 100 |

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

Comments: ¹⁾ As sample #1325351 contained a very rare *Borrelia* isolate (*B. bissetti*), negative PCR results were not rated as “false negative”.