

**PCR-/NAT EHEC / STEC
 (RV 534) November 2022**



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

| | <i>Erwartet / expected</i> | | <i>Probenzusammensetzung / Sample composition</i> |
|---------|----------------------------|------------------|---|
| 2225341 | Ø | 62 | <i>Escherichia coli</i> K12 (negative for eae and hlyA) |
| 2225342 | ++ | 61 / 72,77,78 | EHEC (~1x10 ⁴ CFU/mL) (stx-2c, eae, hlyA and O26 positive) |
| 2225343 | +++ | 61 / 71,72,77,78 | EHEC (~1x10 ⁵ CFU/mL) (stx-1, stx-2, eae, hlyA and O157 positive) |
| 2225344 | Ø | 62 | EPEC (~1x10 ⁴ CFU/mL) (eae positive) |

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

| <i>n = 132</i> | Probennummer (Sample no.) | | | | Inhibition | | | | |
|--|----------------------------------|---------|---------|---------|-------------------|---------|---------|---------|-----|
| | 2225341 | 2225342 | 2225343 | 2225344 | 2225341 | 2225342 | 2225343 | 2225344 | |
| Befund <i>Result</i> | | | | | | | | | |
| Positiv | 0 | 130 | 131 | 20 | n.d. | 1 | 1 | 1 | 1 |
| Negativ | 132 | 2 | 1 | 112 | nein <i>no</i> | 131 | 131 | 131 | 131 |
| Fraglich <i>Questionable</i> | 0 | 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 true positive and true negative results.

| NAT-Methode [Code] (total number *) | NAT richtig positiv <i>True positive results</i> | | | | NAT richtig negativ <i>True negative results</i> | | | |
|---|--|-----|----------------------------|-----|--|-----|----------------------------|-----|
| | 2225342 | | 2225343 | | 2225341 | | 2225344 | |
| | Absolut <i>Absolute</i> | % | Absolut <i>Absolute</i> | % | Absolut <i>Absolute</i> | % | Absolut <i>Absolute</i> | % |
| Altona RealStar EHEC PCR Kit (n = 2) | 2 | 100 | 2 | 100 | 2 | 100 | 2 | 100 |
| Amplex eazyplex EHEC classic plus (n= 1) | 1 | 100 | 1 | 100 | 1 | 100 | 1 | 100 |
| Amplex eazyplex EHEC complete (n = 6) | 6 | 100 | 6 | 100 | 6 | 100 | 6 | 100 |
| BD MAX Enteric Bacterial Panel (n = 5) | 5 | 100 | 4 | 80 | 5 | 100 | 4 | 80 |
| BioMerieux BioFire GI Panel (n = 3) | 3 | 100 | 3 | 100 | 3 | 100 | 2 | 67 |
| HAIN GenoType EHEC (n = 15) | 15 | 100 | 15 | 100 | 15 | 100 | 12 | 80 |

| | | | | | | | | |
|---|-----------|------------|-----------|------------|-----------|------------|-----------|-----------|
| Seegene Allplex Gast. Bacteria II (n = 10) | 10 | 100 | 10 | 100 | 10 | 100 | 7 | 70 |
| LightMix Modular stx-1/stx-2/eaec (n = 7) | 7 | 100 | 7 | 100 | 7 | 100 | 5 | 71 |
| RIDAGENE E.coli Stool Panel I (n = 13) | 13 | 100 | 13 | 100 | 13 | 100 | 11 | 85 |
| RIDAGENE EHEC/EPEC (n = 28) | 27 | 96 | 28 | 100 | 28 | 100 | 23 | 82 |
| In house PCR assay (n = 33) | 32 | 97 | 33 | 100 | 33 | 100 | 31 | 94 |
| Other commercial tests (n = 9) | 9 | 100 | 9 | 100 | 9 | 100 | 8 | 89 |

Comments:

1. Partial or complete shiga toxin subtyping, *eaec*-, and *hlyA*-detection was performed by 116 laboratories. With the exception of 5 laboratories, all reported results were correct
2. Unter "Andere kommerzielle Testsysteme" sind folgende Testsysteme aufgeführt: AmpliGnost Verotoxin 1/2 (Differenzierung) PCR Kit (1x), Amplex Variplex (1x), MOBIDIAG Amplidiag Bacterial GE kit (1x), Seegene Allplex GI-EB-Screening (1x), r-Biopharm RIDA UNITY EHEC/EPEC (1x), AmpliSens Escherichioses FRT PCR kit (1x) und MIKROGEN ampliCube Gastrointestinal Bacterial Panel 2 (2x).