

**Pan-Rickettsia Quantitative PCR (qPCR) Assay Detection Kit**

**Catalog No. NR-35520**

This reagent is the tangible property of the U.S. Government.

**Product Description:** The Pan-Rickettsia Quantitative PCR Assay Detection Kit (NR-35520) is designed to detect and quantitate the presence of *Rickettsia* species. The assay consists of the following components:

- 1) Forward and reverse primers (NR-35354 and NR-35355, respectively)
- 2) Probe designed with 6-carboxyfluorescein (6-FAM) at the 5' end and both a minor groove binding moiety (MGB) and a non-fluorescent quenching dye (NFQ) at the 3' end (NR-35356)
- 3) Plasmid-based standard containing *Rickettsia prowazekii* ribosomal RNA (rRNA) gene sequences (NR-35519)

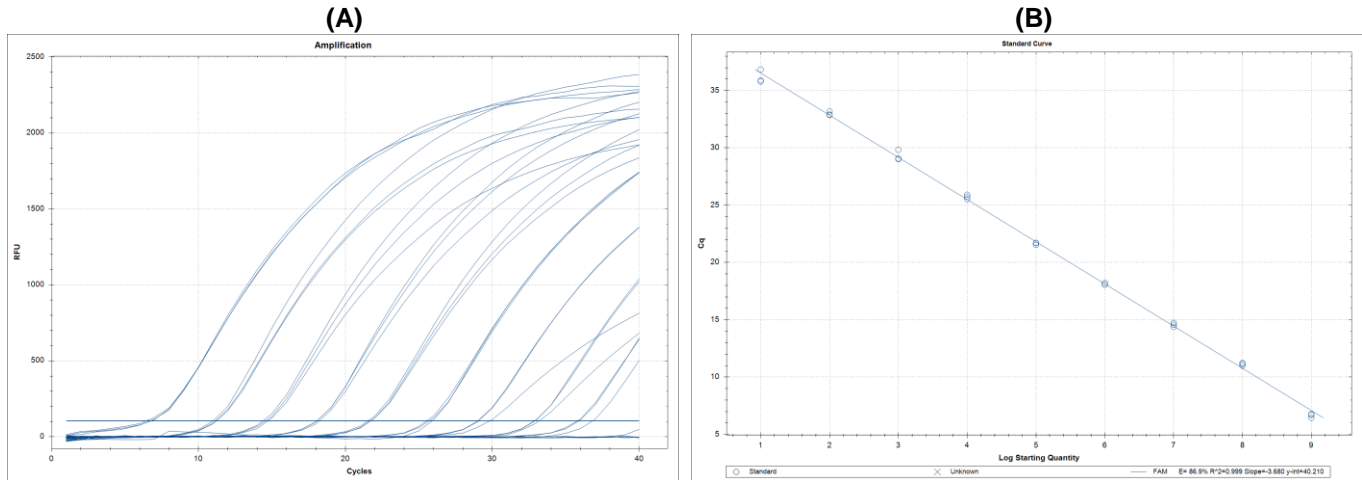
**Lot: 63511773**

**Manufacturing Date: 12JUN2014**

TEST	SPECIFICATIONS	RESULTS
<b>Quantitative PCR – Standard Curve (Figure 1)</b> Correlation coefficient PCR efficiency Dilution separations (C <sub>t</sub> values) Quantitative sensitivity	≥ 0.98 85 to 110% ~ 3.33 cycles Report results	0.99 86.9% ~ 3.68 cycles 100 molecules per reaction
<b>Content (OD<sub>260</sub>)</b> NR-35354, Lot 62694613 (forward primer) NR-35355, Lot 62694614 (reverse primer)	Report results Report results	0.45 0.43
<b>Content (µg)</b> NR-35354, Lot 62694613 (forward primer) NR-35355, Lot 62694614 (reverse primer)	Report results Report results	13.8 13.8
<b>Content (pmol)</b> NR-35354, Lot 62694613 (forward primer) NR-35355, Lot 62694614 (reverse primer) NR-35356, Lot 62694615 (probe)	Report results Report results Report results	2000 2000 1000
<b>Concentration (µM)</b> NR-35354, Lot 62694613 (forward primer) NR-35355, Lot 62694614 (reverse primer) NR-35356, Lot 62694615 (probe)	Report results Report results Report results	10 10 5
<b>Plasmid-Based Standard (NR-35519, Lot 62694627)<sup>1</sup></b> Agarose Gel Electrophoresis of Linearized Plasmid DNA <sup>1</sup> Concentration of DNA Molecules  Sequencing of 16S rRNA Gene (420 nucleotides)	Single band at ~ 4,100 bp Report results  Report results	Single band at ~ 4,100 bp 2.0 × 10 <sup>11</sup> molecules per mL (1.0 × 10 <sup>9</sup> molecules per 5 µL) Consistent with <i>Rickettsia</i> species inversion confirmed

<sup>1</sup>Plasmid DNA was extracted using a Plasmid Plus Maxi Kit (QIAGEN 12963). Purified plasmid DNA was linearized with EcoRI-HF (New England BioLabs, Inc. R3101).

Figure 1



Representative quantitative PCR cycle graph (A) and associated standard curve (B). Data was obtained following the procedure in Appendix I of the Product Information Sheet for NR-35520 using the following reagents:

- BEI Resources NR-35519, Lot 62694627 (Plasmid Containing 16S Ribosomal RNA Gene Sequences from *Rickettsia prowazekii*, Madrid E, Linearized)
- BEI Resources NR-35520, Lot 62694613 (Pan-Rickettsia Quantitative PCR Forward Primer)
- BEI Resources NR-35355, Lot 62694614 (Pan-Rickettsia Quantitative PCR Reverse Primer)
- BEI Resources NR-35556, Lot 62694615 (Pan-Rickettsia Quantitative PCR Probe)

Date: 14 MAY 2015

Signature: 

BEI Resources Authentication

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

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