

| Product Information         |                |
|-----------------------------|----------------|
| <b>PerfeCTa® FastMix II</b> |                |
| <b>Part Number</b>          | 95118-05K      |
| <b>Number of Reactions</b>  | 5000 reactions |
| <b>Reaction Size</b>        | 20µL           |
| <b>Storage Temperature</b>  | -25°C to -15°C |
| <b>Lot Number</b>           | 026587         |
| <b>Reference Number</b>     | 022118         |
| <b>Expiration Date</b>      | 02/28/2021     |

**Product Description:**

PerfeCTa FastMix II is an advanced 2X concentrated qPCR SuperMix reagent for both fast and conventional PCR cycling protocols or instruments. It is a versatile and robust solution that provides the ultimate sensitivity and high PCR efficiency using a variety of fluorogenic probe chemistries, including TaqMan hydrolysis probes. The kit is provided as a 2X concentrated ready-to-use reaction cocktail that contains all required reaction components, except primers, probe(s), and DNA template. Inert AccuVue plate loading dye helps to minimize pipette error and provides visual confirmation of thorough mixing. A key component of the kit is an ultra pure, processive thermostable DNA polymerase that is free of detectable E. coli DNA. PerfeCTa FastMix II is ideal for demanding qPCR applications such as bacterial pathogen detection where residual host DNA in typical recombinant enzyme preparations can limit assay sensitivity and obscure

detection of low copy samples. Formulated for maximum assay precision with an ultra pure, high avidity monoclonal antibody for stringent suppression for reaction assembly at ambient room temperature and complete activity release and minimal activation time (1-3 minutes).

**Component Part Numbers:**

**84209 Perfecta FastMix II, 50.0mL**

| Product Specifications |                                      |                                      |       |       |
|------------------------|--------------------------------------|--------------------------------------|-------|-------|
| 95118                  |                                      |                                      |       |       |
| Assay                  | RT-qPCR Plasmid DNA Functional Assay | RT-qPCR genomic DNA Functional Assay | DNase | RNase |
| <b>Result</b>          | Pass                                 | Pass                                 | Pass  | Pass  |

**Quality Control Analysis and Specifications:**

**Nuclease Assay:**

**DNase:** DNase activity must be below the detectable limits of 100 pg DNase I equivalent as assayed using a fluorogenic substrate following a 1 hour incubation at 37°C with each kit component at 1X concentration.

**RNase:** RNase activity must be below the detectable limits of 1 pg RNase A equivalent as assayed using a fluorogenic substrate following a 1 hour incubation at 37°C with each kit component at 1X concentration.

**RT-qPCR Plasmid DNA Functional Assay:** Fast-cycling Real-time PCR detection of log-fold serial dilutions of a control DNA from 10<sup>7</sup> to 10 copies. Linear regression analysis of cycle threshold versus log input quantity must give a slope of between -3.2 and -3.6 and coefficient of determination (r<sup>2</sup>) ≥0.990.

**RT-qPCR genomic DNA Functional Assay:** Real-time PCR detection of single-copy gene in human genomic DNA using activation step of 10 minutes at 95°C. Linear regression analysis of cycle threshold versus log input quantity for a log-fold serial dilutions of human genomic DNA from 10<sup>5</sup> to 10 copies must give a slope of between -3.2 and -3.6 and coefficient of determination (r<sup>2</sup>) ≥0.990 with accurate two-fold discrimination of 500, 1000, and 2000 copies.

**Limitations of Use**

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