

Product Information	
PerfeCTa® FastMix II	
Part Number	95118-05K
Number of Reactions	5000 reactions
Reaction Size	20µL
Storage Temperature	-25°C to -15°C
Lot Number	66291844
Reference Number	020325
Expiration Date	02/29/2028

**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:**

**95118-05K Perfecta FastMix II, 5000R**

Product Specifications				
95118-05K				
Assay	qPCR Plasmid DNA Functional Assay	qPCR genomic DNA Functional Assay	DNase	RNase
Result	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.

**qPCR Plasmid DNA Functional Assay:** Fast-cycling Real-time PCR detection of log-fold serial dilutions of a control DNA from  $10^7$  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 ( $r^2$ )  $\geq 0.990$ .

**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  $10^5$  to 10 copies must give a slope of between -3.2 and -3.6 and coefficient of determination ( $r^2$ )  $\geq 0.990$  with accurate two-fold discrimination of 500, 1000, and 2000 copies.

**Limitations of Use**

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This product was developed, manufactured, and sold for *in vitro* use only. The product is not suitable for administration to humans or animals. SDS sheets relevant to this product are available upon request.

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