

Product Information	
<b>Custom Multiplex qPCR ToughMix UNG</b>	
Part Number	CM0147-05K
Number of Reactions	5000 Reactions
Reaction Size	20 $\mu$ L
Storage Temperature	-25 $^{\circ}$ C to -15 $^{\circ}$ C
Lot Number	66177993
Reference Number	020820
Expiration Date	02/28/2023

**Product Description:**

A custom formulation of PerfeCTa Multiplex qPCR ToughMix with UNG.

Product Specifications				
CM0147				
Assay	Multiplex qPCR Functional Assay	High Biased, Multiplex qPCR	DNase	RNase
Result	Pass	Pass	Pass	Pass

**Quality Control Analysis and Specifications:**

**Multiplex qPCR:** 4-color multiplex qPCR is performed in triplicate reactions on 10-fold serial dilutions of an equal copy mixture of four plasmid DNAs (10 copies to 1 x10<sup>7</sup> copies). Cq standard curve analysis for each targeted sequence must have a coefficient of determination ( $r^2$ )  $\geq$ 0.990 with a slope between -3.25 and -3.65. Control reactions lacking template DNA (NTC) must remain below fluorescence threshold through 45 PCR cycles.

**High Biased, Multiplex qPCR:** 4-color multiplex qPCR of a 10-fold serial dilution of a FAM probe specific plasmid DNA (1 x10<sup>7</sup> copies to 10 copies) in a fixed background of 3 different plasmid targets at 1x10<sup>8</sup> copies (each) must have an LOD of 10 copies. Cq standard curve analysis must have a coefficient of determination ( $r^2$ )  $\geq$ 0.990 with a slope between -3.25 and -3.70.

**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 $^{\circ}$ C with each kit component: 2X qScript RT, 1X qScript Reaction Mix, or nuclease-free water and control buffer.

**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 $^{\circ}$ C with each kit component: 2X qScript RT mix, 1X qScript Reaction Mix, or nuclease-free water and control buffer.

**Limitations of Use**

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