Product Information	
PerfeCTa® qPCR ToughMix®	
Part Number	95112-012
Number of Reactions	1250 Reactions
Reaction Size	20 µL
Storage Temperature	-25ºC to -15ºC
Lot Number	028160
Reference Number	101818
Expiration Date	10/31/2021

Product Description:

PerfeCTa qPCR ToughMix is a 2X concentrated ready-to-use reaction cocktail for PCR amplification of DNA templates that relieves several types of PCR inhibition commonly encountered with crude extracts, environmental specimens, plant tissues, animal tissues, and complex food matrices. This robust real-time qPCR reagent provides maximum sensitivity and PCR efficiency with a variety of fluorogenic probe chemistries, including TaqMan® hydrolysis probes. The only user-supplied components are primers, probe(s), and DNA template. Pre-blended with inert AccuVue plate loading dye to help minimize pipette errors during setup and provides visual confirmation of thorough mixing. A key component of PerfeCTa qPCR ToughMix is an ultra pure, highly processive thermostable DNA polymerase that is combined with high avidity monoclonal antibodies. This proprietary polymerase mix is highly resistant to PCR inhibitors and provides an extremely stringent automatic hot-start allowing reaction assembly, and temporary storage, at room temperature prior to PCR amplification. PerfeCTa qPCR ToughMix delivers exceptional performance with either fast or conventional PCR cycling protocols.

Component Part Numbers:

84196 PerfeCTa qPCR ToughMix, 1.25 mL

Product Specifications				
95112				
Assay	**RT-qPCR ß Actin Plasmid DNA Functional Assay**	**RT-qPCR IL1–ß Human 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.

RT-qPCR ß Actin Plasmid DNA Functional Assay: Fast-cycling Real-time PCR detection of log-fold serial dilutions of a control DNA from 10 to 1x 10^7 copies. Linear regression analysis of cycle threshold versus log input quantity must give a slope of between –3.20 and –3.65 and coefficient of determination (R^2) ≥0.990.

RT-qPCR IL1–ß Human 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 to 1 x 10^5 copies must give a slope of between –3.20 and –3.65 and coefficient of determination (R^2) ≥0.990 with accurate two-fold discrimination of 500, 1000, and 2000 copies.

Limitations of Use