

Inhibitor-Resistant Probe-based qPCR & RT-qPCR

Overcoming Inhibitors in Challenging PCR Samples

Reliable Amplification with GoTaq® Endure qPCR and RT-qPCR Systems

A Real-Time PCR Master Mix Optimized for PCR Inhibitors

The GoTaq® Endure qPCR Master Mix and RT-qPCR System are designed for quantifying DNA and RNA from challenging samples. This formulation was developed specifically to overcome inhibitors that may be present in typical clinical research, pathogen, and other diverse research specimens. This master mix was put to the test with multiple sample types and inhibitors. Inhibitor tolerance testing showed superior performance than other master mixes on the market.

The robustness of the GoTaq® Endure qPCR and RT-qPCR Systems formulation produces better performance with challenging and inhibitor-rich samples



Get reliable results from a wide range of sample types, including plant, blood, virus, bacteria, and more.



Simplify large-scale testing with room-temperature setup, ideal for automation.

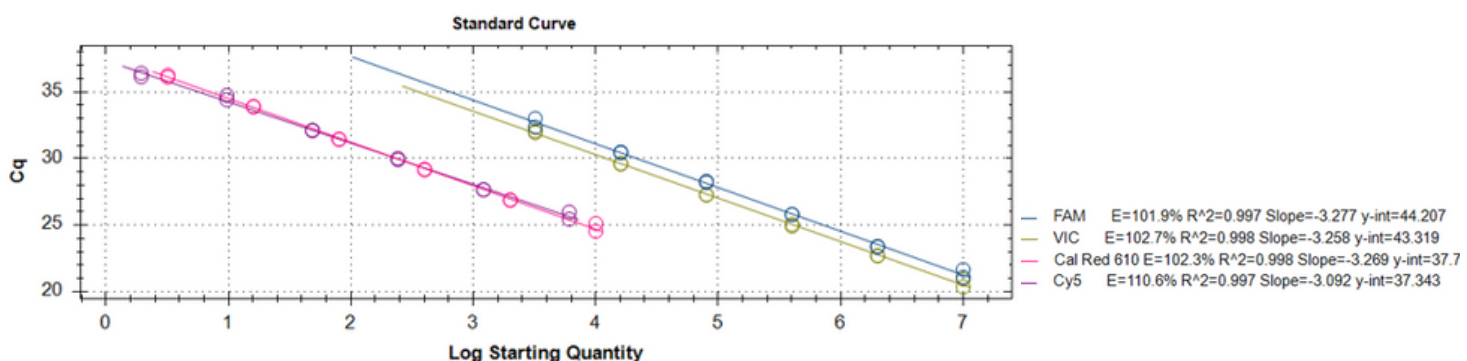


Increase speed and efficiency with multiplex and fast cycling.



Save time by skipping sample purification when combined with XpressAmp®

GoTaq® Endure Enables High Level Multiplexing



GoTaq® Endure Enables High-Level Multiplexing. Four targets, Influenza A (FAM), Influenza B (VIC), SARS-CoV-2 (CAL Red 610), and Human RNase P (Cy5), were simultaneously detected. Six 5-fold serial dilutions of each RNA template were prepared in Nuclease-Free Water, starting with concentrations of 1×10^7 copies/μl for Influenza A, 1×10^7 copies/μl for Influenza B, 1×10^4 copies/μl for SARS-CoV-2, and 2×10^4 pg/μl (6×10^3 copies) for Human RNase P. GoTaq® Endure consistently provided reliable detection across these targets, demonstrating its robust multiplexing capabilities even with low RNA copy numbers.



GoTaq® Endure qPCR Master Mix Works When Other Mixes Fail

GoTaq® Endure qPCR Master Mix

GoTaq® Endure Master Mix enables detection and relative quantification of DNA from challenging samples. GoTaq® Endure qPCR Master Mix is an all-in-one stabilized 2x hot-start formulation for qPCR. The system includes a separate tube of CXR reference dye, which has the same properties as ROX™

	GoTaq® Endure qPCR Master Mix	B1	R1	Q1	T1
EDTA 4.5mM	1.3	-0.5	no Cq	no Cq	no Cq
EtOH 9%	1.4	-2.2	no Cq	no Cq	no Cq
Humic Acid 332µM	1.6	no Cq	no Cq	no Cq	no Cq
Hematin 500µM	0.8	no Cq	no Cq	no Cq	no Cq
Heparin 75U/ml	1.3	no Cq	no Cq	no Cq	no Cq
Sodium Citrate 12mM	2.0	-2.2	no Cq	no Cq	no Cq

GoTaq® Endure qPCR delivers outstanding performance in inhibitor-rich samples, guaranteeing consistent and reliable amplification, even under challenging conditions. Inhibitors were spiked at shown concentration and amplification was performed with a 300bp DNA target. The table displays the average ΔCq values, representing the difference in Cq between reactions with inhibitors and those without inhibitors. Competitor products B1 (SsoAdvanced Universal Probe Supermix), R1 (KAPA Probe Force), Q1 (PerfeCTa qPCR ToughMix), T1 (Path-ID™ qPCR Master Mix) showed greater variability, while GoTaq® Endure maintained consistent results.

GoTaq® Endure RT-qPCR System

The GoTaq® Endure RT-qPCR System enables detection and relative quantification of RNA expression levels from challenging samples using a one-step RT-qPCR method. The system combines GoScript™ Reverse Transcriptase and GoTaq® Endure qPCR Master Mix in a single-step real-time amplification reaction. The system includes a separate tube of CXR reference dye, which has the same properties as ROX™.

	GoTaq® Endure RT-qPCR System	T1	T2	B1	Q1
EDTA 4mM	0.1	no Cq	no Cq	8.5	no Cq
Humic Acid 4.4µM	0.9	2.3	no Cq	0.0	-0.2
Hematin 10µM	1.2	no Cq	no Cq	2.5	7.6
Heparin 8U/ml	1.4	no Cq	no Cq	0.5	3.0

GoTaq® Endure RT-qPCR System delivers superior performance even in challenging, inhibitor-rich samples. Inhibitors were spiked at the indicated concentrations, and amplification was performed using a 75bp RNA target. The table displays the average ΔCq values, representing the difference in Cq between reactions with inhibitors and those without inhibitors. Competitor products T1 (AgPath-ID One Step RT-PCR), T2 (TaqPath DuraPlex 1-step RT-qPCR), B1 (Reliance One-Step Multiplex Supermix), Q1 (UltraPlex™ 1-Step ToughMix®) showed greater variability, while GoTaq® Endure maintained consistent results.

Ordering Information

Product	Size	Cat.#
GoTaq® Endure qPCR Master Mix	200 Reactions in 20 µl	A6220
	1000 Reactions in 20 µl	A6221
GoTaq® Endure RT-qPCR System	200 Reactions in 20 µl	A6222
	1000 Reactions in 20 µl	A6223

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