TAQuest™ FAST qPCR Master Mix with Helixyte™ Green *Low ROX*

Catalog number: 17278, 17279
Unit size: 1 mL, 5 mL

Component	Storage	Amount (Cat No. 17278)	Amount (Cat No. 17279)
TAQuest™ FAST qPCR Master Mix with Helixyte™ Green *Low ROX*	Freeze (< -15 °C), Minimize light exposure	1 mL	5 mL

OVERVIEW

TAQuest™ FAST qPCR Master Mix with Helixyte™ Green is a ready-to-use 2X solution optimized for qPCR and 2-step RT-qPCR. The master mix delivers results within 50 minutes for 40 cycles of PCR in a 20 uL reaction volume. The mix includes an optimized buffer containing dNTPs and our proprietary TAQuest™ FAST Hot Start Taq DNA Polymerase enzyme, an enzyme designed to allow instant hot start which minimizes non-specific product formation thus allowing room temperature reaction setup. Only template and target primers are required to run the desired PCR reactions. TAQuest™ FAST qPCR Master Mix with Helixyte™ Green ensures PCR specificity and sensitivity with all sample types such as genomic, plasmid, viral and cDNA templates. The Helixyte Green intercalating dye allows rapid DNA detection and analysis without using sequence-specific probes. This master mix contains a low amount of ROX reference dye.

KEY PARAMETERS

qPCR

Instrument specification(s) SYBR Green filter

SAMPLE EXPERIMENTAL PROTOCOL

The following protocol can be used as a guideline.

Note: Thaw the TAQuest™ FAST qPCR Master Mix with Helixyte™ Green *Low ROX* at room temperature. Vortex qPCR Master Mix thoroughly before use.

1. Prepare one of the following reaction mixes as indicated in Table 1.
2. Carefully mix the reagents with a gentle vortex followed by a brief centrifuge.
3. Set up the plate in the qPCR instrument and run as indicated in Table 2.

Table 1. Reagents composition per well for each reaction

Components	Volume (25 µL/reaction)	Volume (50 µL/reaction)	Final Conc.
TAQuest™ FAST qPCR Master Mix with Helixyte™ Green *Low ROX*	12.5 µL	25 µL	1X
Upstream primer, 10 µM	0.25-2.5 µL	0.5-5.0 µL	0.1-1.0 µM
Downstream primer, 10 µM	0.25-2.5 µL	0.5-5.0 µL	0.1-1.0 µM
DNA template	1-5 µL	1-5 µL	Optimized conc.
Nuclease-Free Water to	25 µL	50 µL	

Table 2. Thermal cycling parameters

Parameter	Polymerase Activation	PCR (30-40 cycles)	
	Hold	Denature	Anneal/Extend
Temperature	95 °C	95 °C	60 °C
Time (m:ss)	0:10	0:20	0:30

EXAMPLE DATA ANALYSIS AND FIGURES

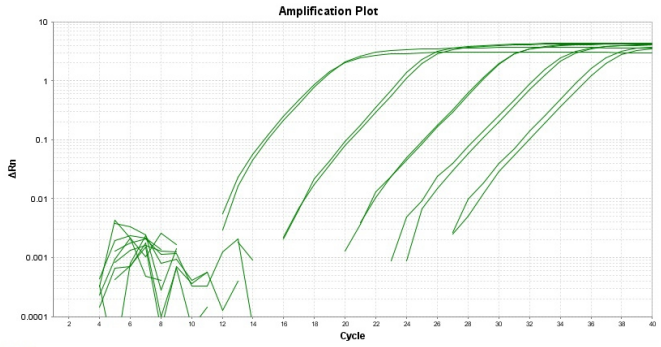

Figure 1. Amplification plot for a dilution series of HeLa cells cDNA amplified in replicate reactions to detect GAPDH using TAQuest™ FAST qPCR Master Mix with Helixyte™ Green *Low ROX*.

DISCLAIMER

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