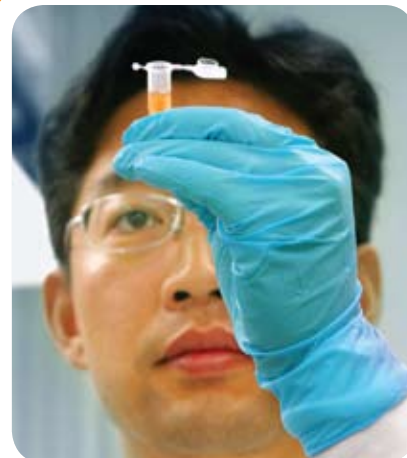


qPCR SuperMixes and FastMixes™ –TaqMan®

PERFECTA™ QPCR SUPERMIXES AND FASTMIXES™ FOR EFFICIENT, SENSITIVE AND PRECISE QPCR USING TAQMAN® DETECTION

PerfeCta™ SuperMixes and FastMixes™ set a new standard for fast and reproducible quantitative PCR (qPCR) with proprietary buffers and stabilizers that maximize fluorescent signal, PCR efficiency and probe discrimination. Rigorous functional testing ensures a broad dynamic range and high sensitivity on a variety of templates, giving unparalleled performance that you can rely on.



Quanta
BIOSCIENCES™

FEATURES AND BENEFITS

- **FastMixes™**—Offer shorter run times enabling more experiments per day
- **Broad Dynamic Range**—More reliably attain useful data from your precious samples
- **Superior Antibody-Mediated Hot-Start**—Higher specificity leading to more accurate quantification
- **Pre-Optimized Formulations**—Multiplexing, fast cycling or UNG formats save time

PerfeCta™ qPCR SuperMixes

PerfeCta™ qPCR SuperMixes are 2X concentrated, ready-to-use reaction cocktails containing all components except primers, probe and template for any real-time quantitative PCR instrument. Quanta SuperMixes include buffers and stabilizers optimized for maximum PCR efficiency, reproducibility and sensitivity with TaqMan® and TaqMan® MGB probe chemistries (See Figures 1 & 2). The enhanced specificity of PerfeCta™ qPCR SuperMixes suppresses cross-reactivity between homologous sequences, improving detection and discrimination in SNP applications. A key component is our AccuStart™ Taq DNA polymerase that contains monoclonal antibodies which bind and inactivate the polymerase prior to the initial PCR denaturation step. Upon heat activation (2 minutes at 95°C), the antibodies irreversibly denature releasing fully active, unmodified Taq DNA polymerase. This promotes specific and efficient primer extension with the convenience of room temperature reaction assembly.

PerfeCta™ qPCR FastMixes™

Q INNOVATIONS

PerfeCta™ FastMixes™ set a new standard for high efficiency qPCR results with a significantly faster protocol for increased productivity. PerfeCta™ qPCR FastMixes™ are 2X concentrated, ready-to-use reaction cocktails that deliver maximum PCR efficiency, sensitivity, (See Figure 3) specificity and robust fluorescent signal using either fast or conventional cycling protocols. Rapid cycling is achieved by instant activation of AccuFast™ Taq DNA polymerase coupled with rapid polymerization kinetics. The result is qPCR in as little as 33 minutes. PerfeCta™ qPCR FastMixes™ are available for all real-time PCR instrument platforms including those requiring normalization with ROX reference dye.

PerfeCta™ MultiPlex qPCR SuperMix

PerfeCta™ MultiPlex qPCR SuperMix is a ready-to-use 2X master mix enabling unbiased amplification of up to five targets in a single tube. This SuperMix exhibits linearity over 6 orders of magnitude with cDNA and genomic DNA (See Figure 4). PerfeCta™ MultiPlex SuperMix yields sensitivity comparable to singleplex qPCR probe assays without the need for limiting or variable primer concentrations. To maximize your options for reporter dye selection, PerfeCta™ Multiplex qPCR SuperMix does not contain an internal reference dye. (ROX available upon request).

PERFECTA™ TAQMAN® SUPERMIXES AND FASTMIXES™: PERFORMANCE DATA

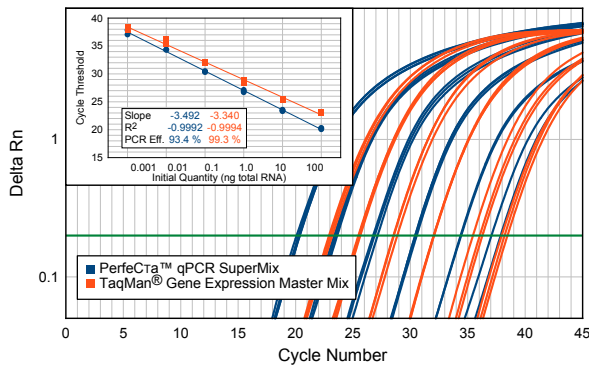


Fig.1 Superior Reproducibility and Sensitivity

ADAR target amplified from log-fold serial dilutions of qScript™-synthesized cDNA from HeLa cell total RNA (100 ng-1 pg) with either PerfeCtra™ qPCR SuperMix or TaqMan® Gene Expression Master Mix (Applied Biosystems).

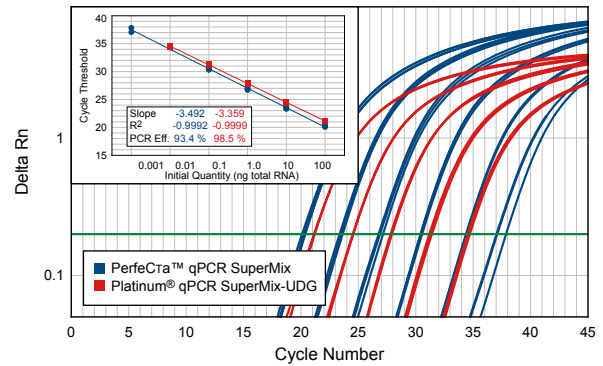


Fig.2 Superior Sensitivity and Fluorescent Signal

ADAR target amplified from log-fold serial dilutions of qScript™-synthesized cDNA from HeLa cell total RNA (100 ng-1 pg) with either PerfeCtra™ qPCR SuperMix or Platinum® qPCR SuperMix-UDG (Invitrogen).

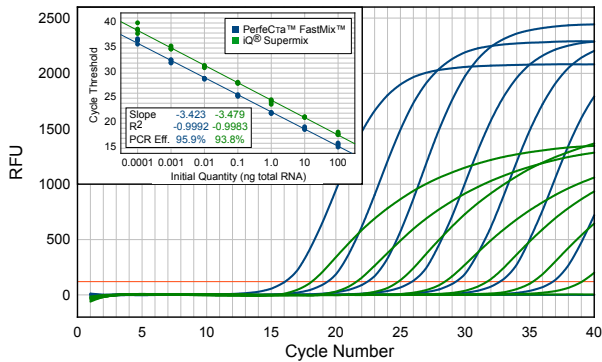


Fig.3 Faster and More Reproducible

RPLPO was amplified from log-fold serial dilutions of qScript™-synthesized cDNA from HeLa cell total RNA (100 ng to 0.1 pg) with either PerfeCtra™ qPCR FastMix™ or iQ® Supermix (Bio-Rad). Quanta fast cycling vs. Bio-Rad standard cycling.

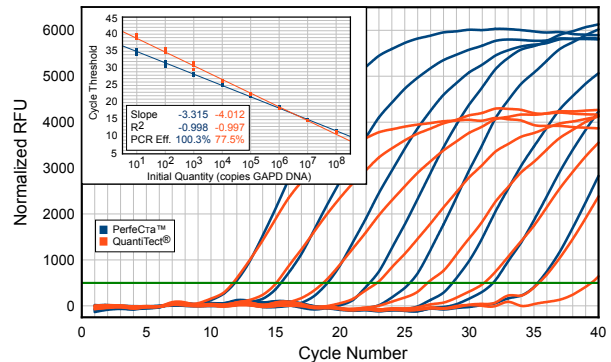


Fig.4 Overcome Challenges of Target Bias in Multiplex qPCR

Varying amounts of GAPD plasmid DNA (10 to 1x10⁸ copies) were co-amplified with 1x10⁶ copies (each) of β-actin (ACTB), interleukin-1B (IL1B), and α-tubulin (TUB). 4-color multiplexed qPCRs were carried out with PerfeCtra™ Multiplex qPCR SuperMix or QuantiTect® Multiplex PCR Kit (Qiagen).

ORDERING INFORMATION

PerfeCtra™ qPCR SuperMixes and FastMixes™ are formulated with and without reference dye to provide trouble-free compatibility with specific real time qPCR instruments as indicated below.

PRODUCT

PRODUCT	Quanta Cat. No. ROX Reference Dye AB 7000, 7300, 7700, 7900 StepOne™	Quanta Cat. No. Low-ROX Reference Dye AB 7500, Stratagene MX	Quanta Cat. No. No Passive Reference Dye Roche LightCycler®480, Bio-Rad iQ™, MyiQ™, iQ™5, Opticon™, Chromo4™, Corbett Rotor-Gene™, Eppendorf Mastercycler®	Qty. Reactions (µl/rxn)
Probe qPCR				
PerfeCtra™ qPCR SuperMix	95051-100	95052-100	95050-100	100 (50 µl)
	95051-500	95052-500	95050-500	500 (50 µl)
	95051-02K	95052-02K	95050-02K	2000 (50 µl)
Probe qPCR w/UNG				
PerfeCtra™ qPCR SuperMix UNG	95065-100	95066-100	95064-100	100 (50 µl)
	95065-500	95066-500	95064-500	500 (50 µl)
	95065-02K	95066-02K	95064-02K	2000 (50 µl)
Fast Cycling qPCR				
PerfeCtra™ qPCR FastMix	95077-100	95078-100	95076-100	250 (20 µl)
	95077-500	95078-500	95076-500	1250 (20 µl)
	95077-02K	95078-02K	95076-02K	5000 (20 µl)
Multiplex qPCR				
PerfeCtra™ Multiplex qPCR SuperMix	95063-050	95063-050	95063-050	50 (50 µl)
	95063-200	95063-200	95063-200	200 (50 µl)