

qPCR SuperMixes and FastMixes™ – SYBR® Green

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

PerfeCtra™ SYBR® Green SuperMixes set a new standard for fast and reproducible quantitative PCR (qPCR) with proprietary buffers and SYBR® Green stabilizers that maximize fluorescent signal, PCR efficiency, and reduce primer dimers. 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
- **Fast Cycling**—Use existing primer sets, no need to re-optimize

PerfeCtra™ SYBR® Green SuperMixes

PerfeCtra™ SYBR® Green SuperMixes are 2X concentrated, ready-to-use reaction cocktails containing all components, except primers and template for quantitative PCR. Proprietary buffers and stabilizers are optimized for SYBR® Green I dye to deliver maximum efficiency, sensitivity, and robust fluorescent signal compared with next-generation competitor kits (See Figures 1 & 2). PerfeCtra™ SYBR® Green SuperMixes are available and optimized for all real-time PCR instrument platforms including those requiring normalization with ROX reference dye or fluorescein (Bio-Rad). These SuperMixes provide the highest level of specificity to reduce the occurrence or delay the detection of primer-dimer and other non-specific artifacts. A key component of these SuperMixes is our AccuStart™ Taq DNA polymerase, which enables specific and efficient primer extension with the convenience of room temperature reaction assembly. AccuStart™ Taq DNA polymerase contains monoclonal antibodies that bind to the polymerase and keep it inactive prior to the initial PCR denaturation step. Upon heat activation the antibodies denature irreversibly, releasing fully active and unmodified Taq DNA polymerase.

PerfeCtra™ SYBR® Green FastMixes™

Q INNOVATIONS

PerfeCtra™ SYBR® Green FastMixes™ set a new standard for high efficiency qPCR results with a significantly faster protocol for increased productivity using your existing primer sets. PerfeCtra™ SYBR® Green FastMixes™ are 2X concentrated, ready-to-use reaction mixes delivering maximum PCR efficiency, sensitivity, specificity and robust fluorescent signal using either fast or conventional cycling protocols (See Figures 3 & 4). Rapid cycling is achieved by instant activation of AccuFast™ Taq DNA polymerase coupled with rapid polymerization kinetics. Achieve high performance qPCR in as little as 33 minutes. PerfeCtra™ SYBR® Green FastMixes™ are available and optimized for all real-time PCR instrument platforms including those requiring normalization with ROX reference dye or fluorescein (Bio-Rad).

Improved Productivity with PerfeCtra™ SYBR® Green FastMix™

	Conventional Reagents Cycling	PerfeCtra™ FastMix™ Cycling
Activation:	2-15 min, 95°C	20s, 95°C
PCR Cycling:	15s, 95°C 60s, 60°C	1-3s, 95°C 20s, 60°C
Cycle Time:	40 cycles=52 min (excluding ramp time)	40 cycles=14 min (excluding ramp time)
Total Run Time: iCycler iQ®	1 hr, 20 min – 1 hr, 43 min (4-6 runs/8 hr shift)	40 min (12 runs/8 hr shift)
Total Run Time: Eppendorf Mastercycler®, ep realplex	1 hr, 12 min – 1 hr, 22 min (5-6 runs/8 hr shift)	33 min (14 runs/8 hr shift)

PERFECTA™ SYBR® GREEN SUPERMIXES AND FASTMIXES™: PERFORMANCE DATA

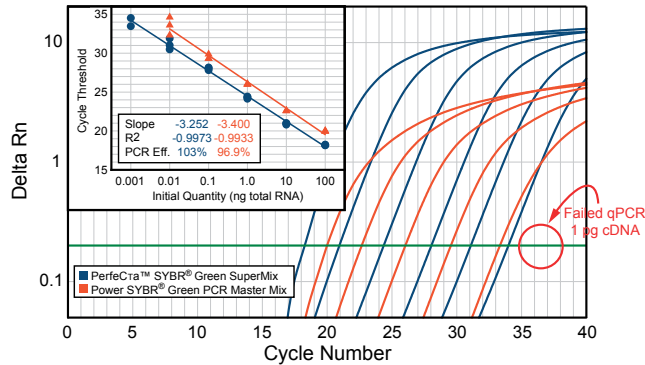


Fig.1 Superior Reproducibility and Sensitivity

PKCA target amplified from log-fold serial dilutions of qScript™ synthesized cDNA from HeLa cell total RNA (100 ng-1 pg) with either PerfeCra™ SYBR® Green SuperMix or Power SYBR® Green PCR Master Mix

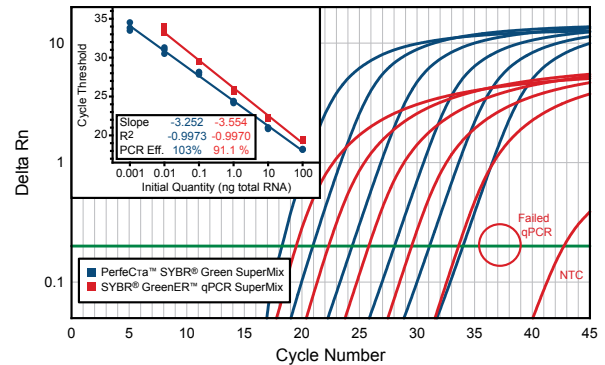


Fig.2 Superior Reproducibility and Sensitivity

PKCA target amplified from log-fold serial dilutions of qScript™ synthesized cDNA from HeLa cell total RNA (100 ng-1 pg) with either PerfeCra™ SYBR® Green SuperMix or SYBR® GreenER™ qPCR SuperMix.

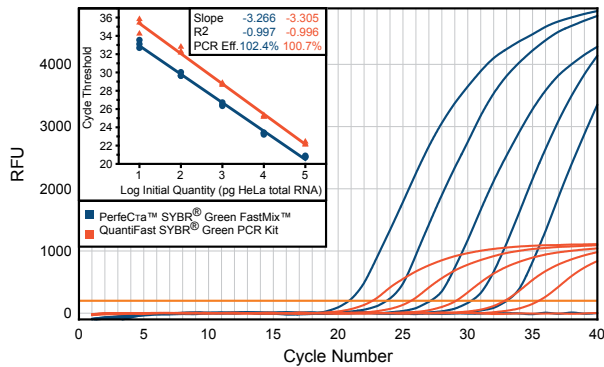


Fig.3 Faster, More Sensitive

ADAR target amplified from log-fold serial dilutions of qScript™ synthesized cDNA from HeLa cell total RNA (100 ng-10 pg) with either PerfeCra™ SYBR® Green FastMix™ or QuantiFast SYBR® Green PCR Kit.

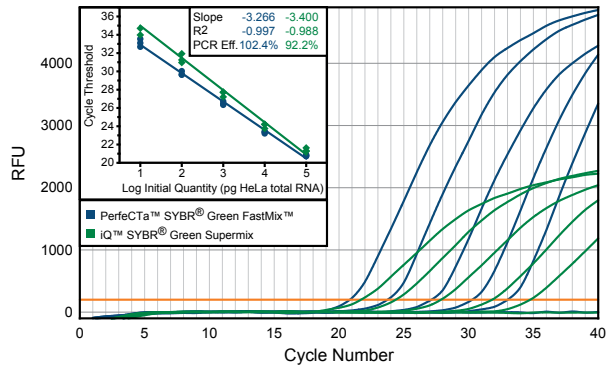


Fig.4 Faster, More Sensitive

ADAR target amplified from log-fold serial dilutions of qScript™ synthesized cDNA from HeLa cell total RNA (100 ng-10 pg) with either PerfeCra™ SYBR® Green FastMix™ or iQ™ SYBR® Green SuperMix.

ORDERING INFORMATION

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

PRODUCT

	Quanta Cat. No. ROX Reference Dye	Quanta Cat. No. Low-ROX Reference Dye	Quanta Cat. No. Fluorecein Reference Dye	Quanta Cat. No. No Passive Reference Dye	Qty. Reactions (µl/rxn)
	AB 7000, 7300, 7700, 7900 StepOne™	AB 7500, Stratagene MX	Bio-Rad iQ™, MjIQ™, iQ™5	Roche LightCycler®480, Opticon™, Chromo4™, Corbett Rotor-Gene™, Eppendorf Mastercycler®	
SYBR® Green qPCR					
PerfeCra™ SYBR® Green SuperMix	95055-100	95056-100	95053-100	95054-100	100 (50µl)
	95055-500	95056-500	95053-500	95054-500	500 (50µl)
	95055-02K	95056-02K	95053-02K	95054-02K	2000 (50µl)
SYBR® Green qPCR w/UNG					
PerfeCra™ SYBR® Green SuperMix UNG	95069-100	95070-100	95067-100	95068-100	100 (50µl)
	95069-500	95070-500	95067-500	95068-500	500 (50µl)
	95069-02K	95070-02K	95067-02K	95068-02K	2000 (50µl)
Fast Cycling SYBR® Green qPCR					
PerfeCra™ SYBR® Green FastMix™	95073-250	95074-250	95071-250	95072-250	250 (20µl)
	95073-012	95074-012	95071-012	95072-012	1250 (20µl)
	95073-05K	95074-05K	95071-05K	95072-05K	5000 (20µl)