

qPCR SuperMixes and FastMixes™ – SYBR® Green

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

PerfeCta 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

PerfeCta SYBR Green SuperMixes

PerfeCta 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). PerfeCta 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.

PerfeCta SYBR Green FastMixes

Q INNOVATIONS

PerfeCta 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. PerfeCta 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. PerfeCta 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 PerfeCta SYBR Green FastMix

	Conventional Reagents Cycling	PerfeCta 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: epENDORF 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

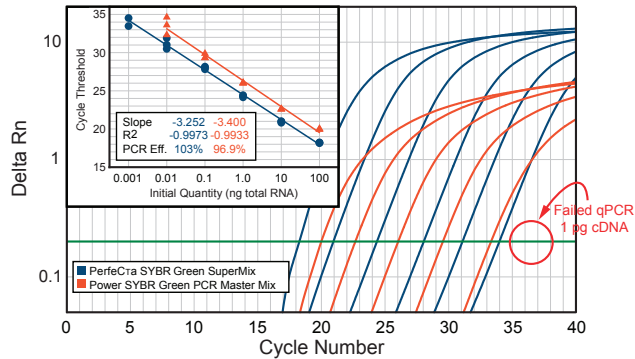


Fig.1 Superior Reproducibility and Sensitivity

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

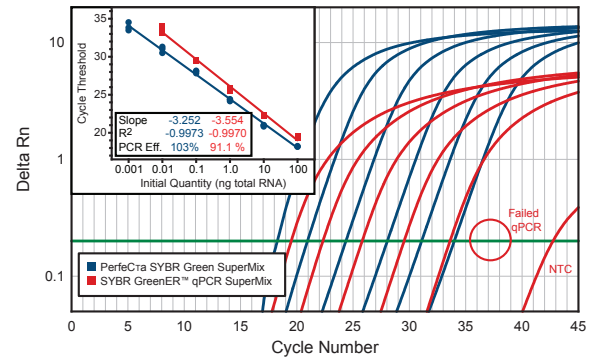


Fig.2 Superior Reproducibility and Sensitivity

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.

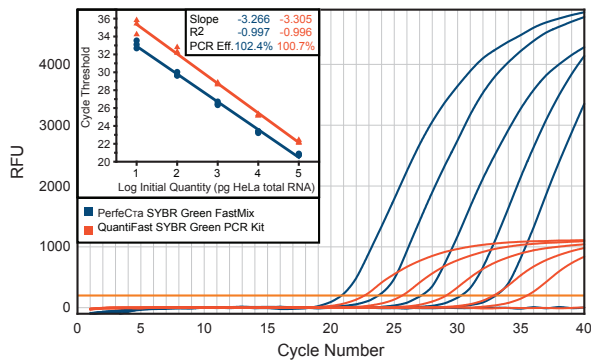


Fig.3 Faster, More Sensitive

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.

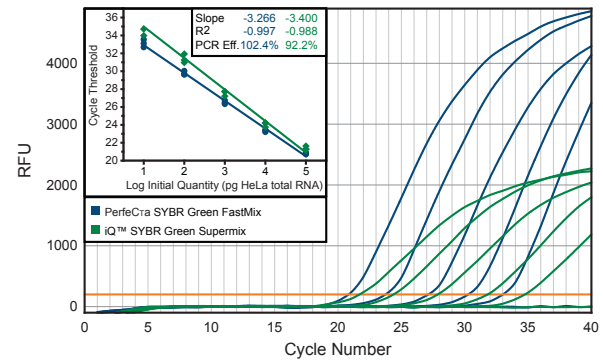


Fig.4 Faster, More Sensitive

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 PCR instruments as indicated below.

PRODUCT

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 AB QuantStudio 12K Flex, AB ViiA7, Fluidigm BioMark	Bio-Rad iQ™, MyiQ™, iQ™5	Roche LightCycler®480, Opticon™, Chromo4™, Corbett Rotor-Gene™, eppendorf Mastercycler®, Bio-Rad CFX	

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)