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Go green for convenient and sensitive real-time PCR detection

Platinum® SYBR® Green qPCR SuperMix-UDG delivers:

- Sensitivity to detect as few as 10 target copies
- Easy optimization on a wide variety of instruments
- Superior contamination control with 100% dUTP and UDG

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A complete system for SYBR® Green I detection

Platinum® SYBR® Green qPCR SuperMix-UDG gives you everything you need for convenient and sensitive real-time PCR detection with SYBR® Green I dye. The SuperMix format combines amplification reagents into a single mix to save you time and ensure sensitive, reproducible detection down to 10 copies of target. The use of 100% dUTP and UDG provides superior contamination control, while separate tubes of ROX reference dye and BSA simplify optimization on various instrument platforms.

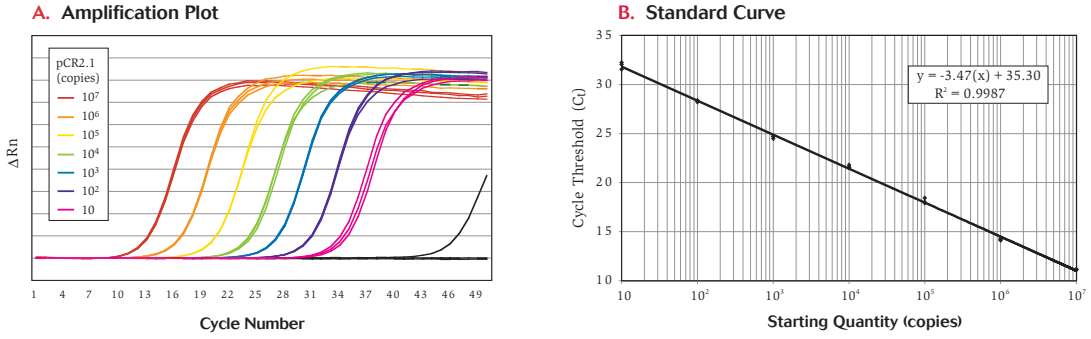
A convenient mix

Platinum® SYBR® Green qPCR SuperMix-UDG provides a convenient way to get real-time PCR detection with SYBR® Green I dye. The SuperMix format combines buffer, dNTPs, Platinum® *Taq* DNA Polymerase, Uracil DNA Glycosylase (UDG), and SYBR® Green I into a ready-to-go mix. You save time by not having to mix your own reagents, while ensuring consistent and reproducible results across samples.

Equipped for sensitive detection

Platinum® *Taq* DNA Polymerase provides antibody-mediated hot-start technology to give you higher yields and greater sensitivity in your PCR. With Platinum® *Taq*, you can detect as few as 10 copies of your target gene while achieving a dynamic range of up to seven orders of magnitude (Figure 1). The SuperMix format also minimizes variation across samples, ensuring consistent and reproducible sensitivity in all of your reactions.

Figure 1 - Platinum® SYBR® Green qPCR SuperMix-UDG provides sensitive detection

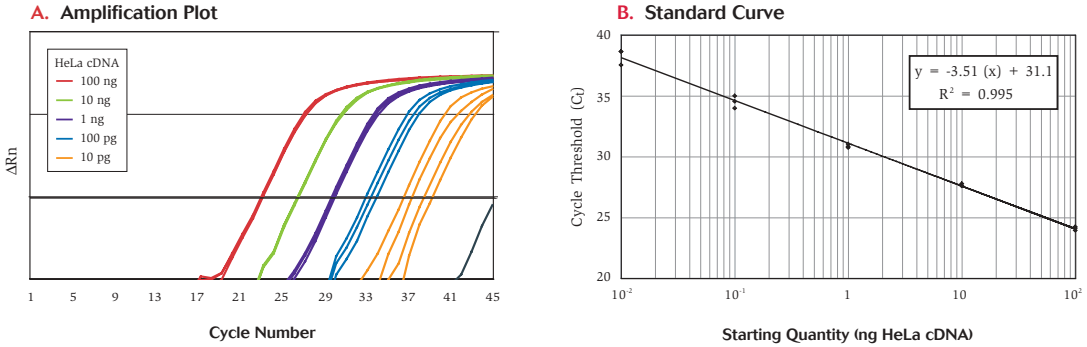


Real-time quantitative PCR of 10-fold serial dilutions (10^7 to 10 copies) of pCR®2.1 plasmid were performed using primers specific to the Kanamycin resistance gene (200 nM each) with Platinum® SYBR® Green qPCR SuperMix-UDG and ROX reference dye. Reactions were incubated for 2 min. at 50°C, then 2 min. at 95°C, followed by 50 cycles of 95°C for 15 sec.; 60°C, 30 sec. using the ABI PRISM® 7700.

Easy optimization on different instruments

Platinum® SYBR® Green qPCR SuperMix-UDG reduces the time and expense of hunting down reagents and makes optimization easier. By using the separate tubes of ROX reference dye and Ultrapure BSA included, you can easily optimize your reactions for 96-well plate formats and glass capillary tube instruments, with no need for additional reagents. An extra tube of magnesium chloride is also provided for optimizing magnesium concentrations. Figure 2 demonstrates the performance of Platinum® SYBR® Green qPCR SuperMix-UDG with a glass capillary tube instrument.

Figure 2 - Platinum® SYBR® Green qPCR SuperMix-UDG optimized for the Roche LightCycler®

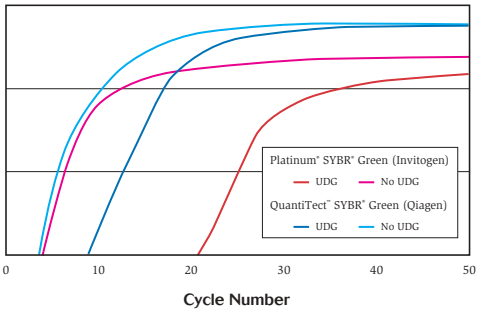


Real-time quantitative PCR of 10-fold serial dilutions (100 ng to 10 pg) of HeLa cDNA was performed with 500 nM human HPRT primers using Platinum® SYBR® Green qPCR SuperMix-UDG supplemented with the BSA provided. Reactions were incubated for 2 min. at 50°C, then 2 min. at 92°C, followed by 45 cycles of 92°C for 5 sec.; 60°C, 30 sec. using the Roche LightCycler®.

Superior contamination control

Platinum® SYBR® Green qPCR SuperMix-UDG is the only kit available that offers 100% dUTP and UDG enzyme to provide a complete carryover decontamination package. Use of 100% dUTP in place of dTTP generates dU-containing amplicons in every reaction. If any of these dU-containing amplicons are carried forward into new reactions, UDG will cleave the N-glycosidic bond between the uracil base and the phosphodiester backbone, making the fragments more susceptible to hydrolysis and unable to be amplified. This ensures that the only signal you see is the correct one, saving you time and money through fewer repeat reactions. Figure 3 demonstrates how Platinum® SYBR® Green qPCR SuperMix-UDG suppresses amplification of dU-containing amplicons for three times as many PCR cycles as competing kits.

Figure 3 - Platinum SYBR® Green qPCR SuperMix-UDG provides superior contamination control



Real-time nested PCR was performed to compare the decontamination capabilities of Invitrogen's Platinum® SYBR® Green qPCR SuperMix-UDG (red-shaded lines) and Qiagen's QuantiTect™ SYBR® Green PCR Kit (blue-shaded lines). 10^4 copies of pCR®2.1 plasmid were amplified with 200 nM each outside primers to generate PCR product with dU residues. Nested PCR was then carried out with 5 µl of a 1/1000 dilution of the first round PCR product plus 0.4 U/rxn Uracil DNA Glycosylase. Cycling conditions were 2 min. at 95˚C, followed by 50 cycles of 95˚C for 15 sec.; 60˚C for 30 sec. for both first round and nested PCR.

The complete solution

Get a complete solution for convenient and sensitive qPCR with Platinum® SYBR® Green qPCR SuperMix-UDG. Visit **www.invitrogen.com/qpcr** for more information.

Ordering Information

Product	Quantity	Cat. no.
Platinum® SYBR® Green qPCR SuperMix-UDG	100 rxns	11733-038
	500 rxns	11733-046
Related Products		
SuperScript™ III First-Strand Synthesis System for RT-PCR	50 rxns	18080-051
Concert™ 96 RNA Purification System	384 rxns	12173-011
TRIzol® Reagent	100 ml	15596-026

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