



# appGREEN 1-Step RT-qPCR Kits

*Sensitive & Fast One-Step RT-qPCR*



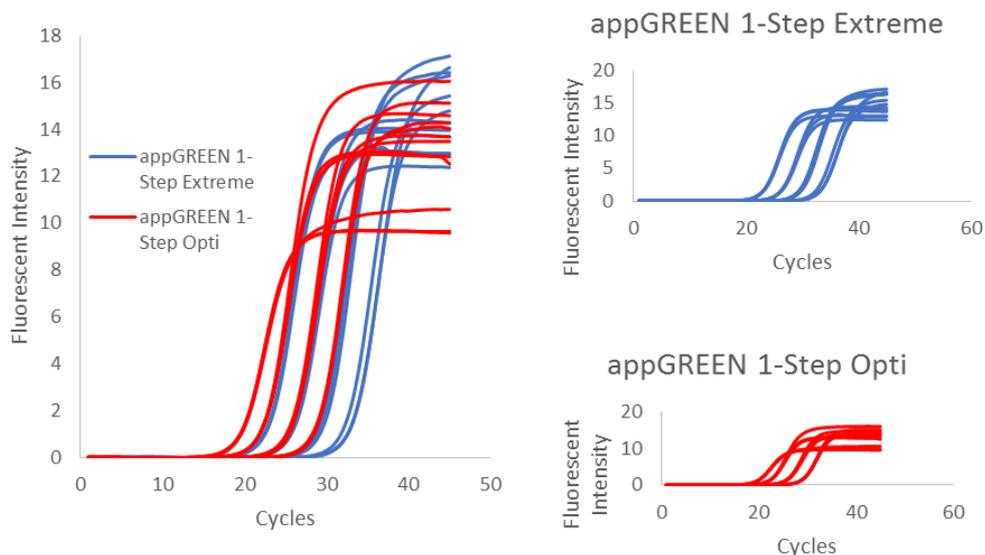
appGREEN 1-Step Extreme and Opti RT-qPCR Kits use the latest developments in reverse transcriptase technology and buffer chemistry for efficient cDNA synthesis and qPCR in a single tube. Combining the latest advancements in polymerase technology and advanced buffer chemistry we offer market leading performance with minimal or no optimisation. Antibody-mediated hot start technology using appTAQ Hot Start Polymerase prevents formation of primer dimers and non-specific products leading to improved reaction sensitivity and specificity.

appGREEN 1-Step **Extreme** RT-qPCR Kits can be used to quantify any RNA template including mRNA, total RNA and viral sequences. Extremely low copy number targets can be detected specifically with high efficiency. They have been optimised to work well with template amounts of 1pg - 10ng total RNA or >0.01pg mRNA per reaction.

appGREEN 1-Step **Opti** RT-qPCR kits can also be used to quantify any RNA template including mRNA, total RNA and viral sequences but have been optimised to rapidly quantify high copy number targets at earlier C<sub>t</sub>'s. They are recommended for template amounts of 10pg - 100ng total RNA or >0.01pg mRNA per reaction.

## Main Features

- For absolute RNA target quantification and relative gene expression analysis
- **appGREEN 1-Step RT-qPCR Extreme kits**
  - highly sensitive for reliable quantification of extremely low copy number targets
- **appGREEN 1-Step RT-qPCR Opti kits**
  - optimised to rapidly quantify high copy number targets at earlier C<sub>t</sub>'s
- Highly processive, thermostable reverse transcriptase maximises cDNA yield & extension
- Advanced RNase inhibitor protects your precious RNA targets
- Antibody-mediated hot start polymerase for specificity and easy room temperature set up
- Kits contain an intercalating dye which does not inhibit PCR
- Compatible on all major real-time PCR platforms



**Figure 1: Comparison of appGREEN 1-Step Extreme and Opti Low ROX Kits, showing the ideal template range of each product.** The GAPDH gene was amplified from a dilution series of total RNA extracted from mouse liver. The appGREEN 1-Step Opti Low ROX kit shows efficient amplification of total RNA in the range 100 ng to 100 pg per reaction. The appGREEN 1-Step Extreme Low ROX Kit shows efficient amplification of total RNA in the range 10 ng to 10 pg per reaction. Cycling conditions were 45°C for 10 minutes for cDNA synthesis, followed by 95°C for 2min hot start, then 45 cycles of 95°C for 10sec, 60°C for 30sec on a Roche LC480.

## Ordering Information

### appGREEN 1-Step Extreme RT-qPCR Kits

Code	Description	Pack Size
ARP742	appGREEN 1-Step Extreme Low ROX Kit	200 reactions
ARP743	appGREEN 1-Step Extreme Low ROX Kit	500 reactions
ARP752	appGREEN 1-Step Extreme High ROX Kit	200 reactions
ARP753	appGREEN 1-Step Extreme High ROX Kit	500 reactions

### appGREEN 1-Step Opti RT-qPCR Kits

Code	Description	Pack Size
ARP792	appGREEN 1-Step Opti Low ROX Kit	200 reactions
ARP793	appGREEN 1-Step Opti Low ROX Kit	500 reactions
ARP802	appGREEN 1-Step Opti High ROX Kit	200 reactions
ARP803	appGREEN 1-Step Opti High ROX Kit	500 reactions

Cat No: ARP742-ARP803

Ver1.0