

# qPCRBIO SyGreen 1-Step Detect | 1-Step Go

- Thermostable reverse transcription
- Sensitive
- Early Ct

qPCRBIO SyGreen 1-Step Kits have been designed for fast, highly specific and ultra-sensitive real-time RT-PCR. We use the latest developments in reverse transcriptase technology and buffer chemistry to give efficient cDNA synthesis and real-time PCR in a single tube.

## Features

- Thermostable reverse transcriptase 45°C to 55°C
- Advanced RNase inhibitor
- Non-PCR inhibiting intercalating dye
- Rapid extension rate for early Ct values
- Market-leading sensitivity - increased limit of detection
- Antibody-mediated hot start PCR
- Compatible on all real-time PCR platforms - standard and fast cycling conditions

## Applications

- Absolute quantification
- Relative gene expression analysis
- Detection of extremely low copy number targets
- qPCRBIO SyGreen 1-Step Detect recommended for template amounts of 1pg - 10ng total RNA or >0.01pg mRNA per reaction
- qPCRBIO SyGreen 1-Step Go recommended for template amounts of 10pg - 100ng total RNA or >0.01pg mRNA per reaction

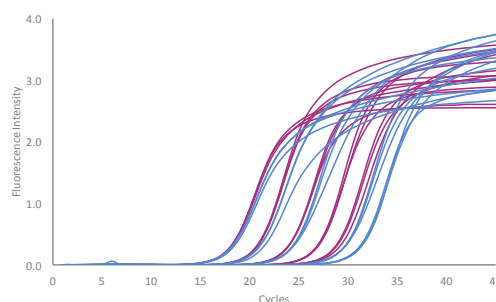


Figure 1. Comparison of qPCRBIO SyGreen 1-Step Go (purple) against competitor Bioline (blue)

Shows amplification traces of the ACTG1 gene from a dilution series of total RNA extracted from mouse liver. Total RNA concentration varied from 25pg to 250ng per 20µl reaction. Cycling conditions were 45°C 10 minutes for cDNA synthesis, followed by 95°C 2 minutes hot start, then 45 cycles of 95°C 10sec, 60°C 10sec on Roche LC480. qPCRBIO SyGreen 1-Step Go had equal performance at high RNA concentrations and superior performance at lower RNA concentrations, displaying linear spacing between amplification curves, earlier amplification by 3–4 cycles, and lower prevalence of primer dimer.



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## Fast and Sensitive

qPCRBIO SyGreen 1-Step Kits can be used to quantify any RNA template including mRNA, total RNA and viral RNA sequences. qPCRBIO SyGreen 1-Step Detect is designed for sensitivity and is ideally suited to the detection of extremely low copy number targets. qPCRBIO SyGreen 1-Step Go gives the earliest Ct and is formulated for rapid and accurate results from high template concentrations.

## Thermostable

The kits include a thermostable and extremely active modified MMLV reverse transcriptase and advanced RNase inhibitor that prevents degradation of RNA by contaminating RNase. PCR amplification is powered by antibody-mediated hot start technology, preventing the formation of primer dimers and non-specific products leading to improved reaction sensitivity and specificity. Combining the latest developments in polymerase technology and advanced buffer chemistry we offer market-leading performance with minimal or no optimisation.

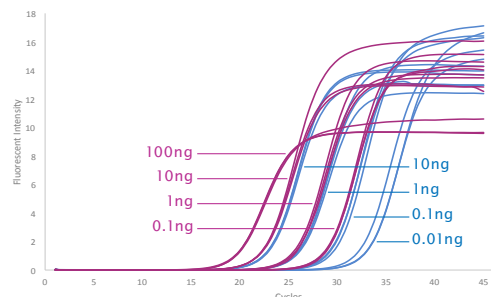


Figure 2a.

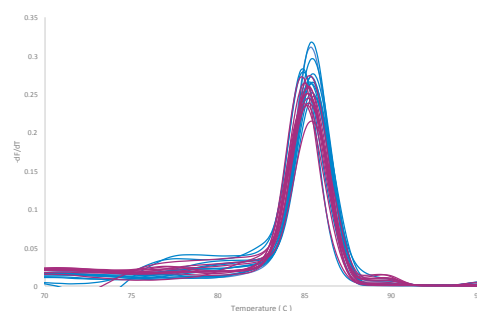


Figure 2b.

Comparison of qPCRBIO SyGreen 1-Step Detect (blue) and qPCRBIO SyGreen 1-Step Go (purple), showing ideal template ranges for each product

The ACTG1 gene was amplified from a dilution series of total RNA extracted from mouse liver. qPCRBIO SyGreen 1-Step Go (purple) shows efficient amplification of total RNA in the range 100pg to 100ng per reaction. qPCRBIO SyGreen 1-Step Detect (blue) shows efficient amplification of total RNA in the range 10pg to 10ng per reaction (figure 2a). Cycling conditions were 45°C 10min for cDNA synthesis, followed by 95°C 2min hot start, then 45 cycles of 95°C 10sec, 60°C 30sec, concluding with a melt analysis (figure 2b) on a Roche LC480.

Catalogue Number	Product Name	Pack Size	Presentation
PB25.11-01	qPCRBIO SyGreen 1-Step Detect Lo-ROX	100 x 20µl rxns	[1 x 1ml mix] & [1 x 200µl RTase]
PB25.11-03		300 x 20µl rxns	[3 x 1ml mix] & [3 x 200µl RTase]
PB25.11-12		1200 x 20µl rxns	[12 x 1ml mix] & [12 x 200µl RTase]
PB25.12-01	qPCRBIO SyGreen 1-Step Detect Hi-ROX	100 x 20µl rxns	[1 x 1ml mix] & [1 x 200µl RTase]
PB25.12-03		300 x 20µl rxns	[3 x 1ml mix] & [3 x 200µl RTase]
PB25.12-12		1200 x 20µl rxns	[12 x 1ml mix] & [12 x 200µl RTase]
PB25.31-01	qPCRBIO SyGreen 1-Step Go Lo-ROX	100 x 20µl rxns	[1 x 1ml mix] & [1 x 100µl RTase Go]
PB25.31-03		300 x 20µl rxns	[3 x 1ml mix] & [3 x 100µl RTase Go]
PB25.31-12		1200 x 20µl rxns	[12 x 1ml mix] & [12 x 100µl RTase Go]
PB25.32-01	qPCRBIO SyGreen 1-Step Go Hi-ROX	100 x 20µl rxns	[1 x 1ml mix] & [1 x 100µl RTase Go]
PB25.32-03		300 x 20µl rxns	[3 x 1ml mix] & [3 x 100µl RTase Go]
PB25.32-12		1200 x 20µl rxns	[12 x 1ml mix] & [12 x 100µl RTase Go]