



PyroScript[®] RT-PCR 2X Master Mix Kit

A Ready-to-use One-step Reverse Transcription-PCR Master Mix

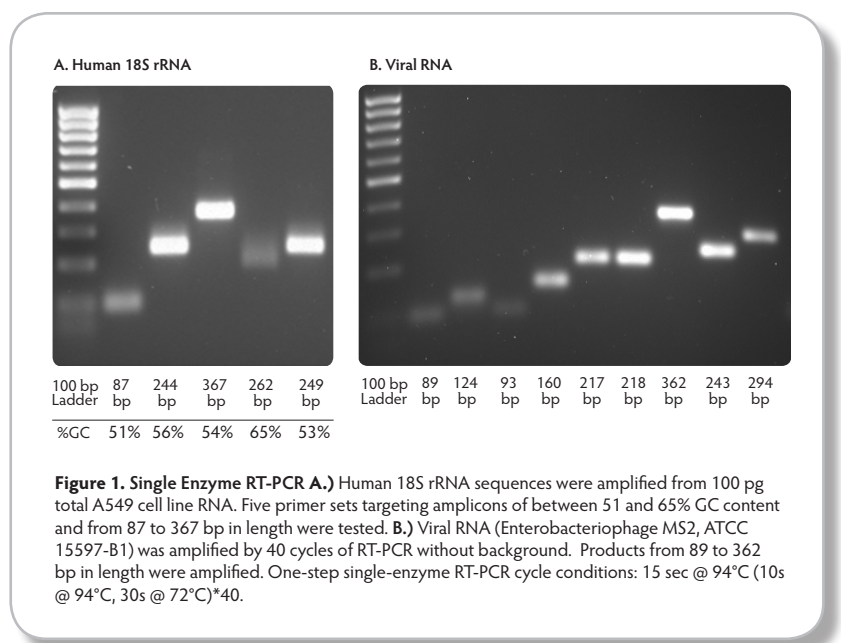
- **High Temperature - Reverse Transcription at 70°C or even higher.**
- **Convenient - Just add primers, RNA template, and cycle.**
- **Fast - Amplify and detect viral and cellular RNA in 30 minutes.**
- **Effective - Real-time or end-point analyses.**

The PyroScript[®] RT-PCR 2X Master Mix incorporates a thermostable PCR enzyme discovered by Lucigen that also has efficient reverse transcription activity. The complete one-step PyroScript RT-PCR 2X Master Mix is optimized for sensitive, specific and accurate RNA detection. This format reduces hands-on time and facilitates error-free reaction set up. Just add template, primers and cycle. Detect amplification by gel electrophoresis or real-time analysis.

Low background fluorescence and enzyme compatibility with commonly used fluorescent stains make PyroScript RT-PCR 2X Master Mix excellent for qRT-PCR. PyroScript RT-PCR 2X Master Mix is especially useful for RT-PCR detection and quantification of viral as well as transcript RNA. Extreme thermostability allows denaturation of crude specimens at 94°C to simplify sample preparation. Reverse transcription at 70°C or even higher improves analysis of highly-structured RNA templates.

PyroScript RT-PCR 2X Master Mix produces results:

- Amplifies up to 400 bp of transcript RNA and viral RNA (Figure 1).
- Detects RNA with sensitivity to ~1 copy (Figure 2).
- Quantifies RNA target uniformly over 6 logs of RNA concentration (Figure 3).



PyroScript® RT-PCR 2X Master Mix Kit continued

PyroScript® RT-PCR 2X Master Mix is Sensitive

The sensitivity of PyroScript RT-PCR 2X Master Mix is shown in figure 2, in which as few as 1.2 copies of MS2 bacteriophage RNA were detected.

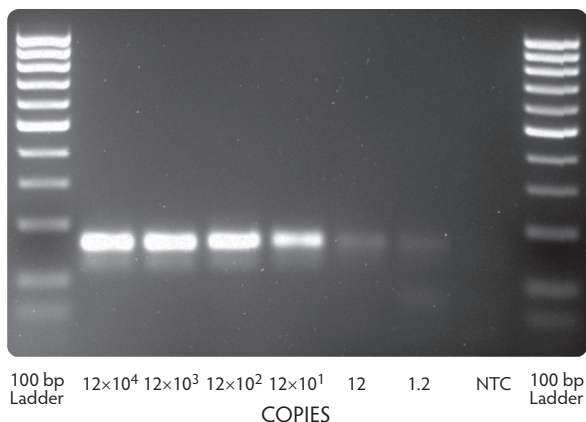


Figure 2. Single-enzyme, one-step RT-PCR from a 10-fold dilution series of quantitated MS2 bacteriophage RNA. Pyroscript RT-PCR Master Mix amplified RNA copy numbers from 120,000 to 1.2 copies (as estimated by OD_{260}). No amplification was detected in the water only no target control (NTC).

Linear RT-PCR Quantification with PyroScript RT-PCR 2X Master Mix

PyroScript RT-PCR 2X Master Mix was used in real time analysis, as shown in figure 3, to illustrate the linearity of quantification.

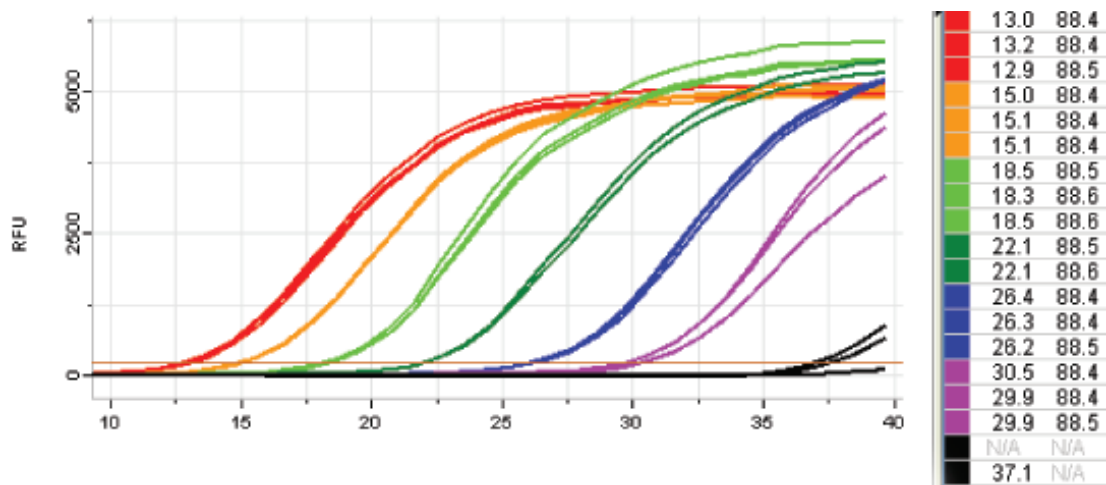


Figure 3. Quantitative RT-PCR Triplicate single-enzyme RT-PCR amplifications of a 10^3 to 10^8 -fold dilution series of the RNA target. Amplification was detected by EvaGreen fluorescence. PyroScript RT-PCR 2X Master Mix, RNA Control and Control Primer Set were used for the analysis.

Products	Size	Cat. No.	Price
PyroScript® RT-PCR 2X Master Mix Kit	50 rxn (Trial Size)	30055-0	\$125
	100 rxn	30055-1	\$225
	500 rxn (5 x 100 rxn)	30055-2	\$999

Ordering Information

PyroScript RT-PCR 2X Master Mix Kit is supplied in vials filled with 50 reactions per vial. The master mix is stable for at least 10 freeze-thaw cycles. Also supplied is an extractable RNA control, Control primer set, 100 mM Magnesium sulfate, and Nuclease-free water.

Legal Information

The methods of using the PyroScript RT-PCR 2X Master Mix are covered by pending patents assigned to Lucigen Corporation. Lucigen does not encourage or support the unauthorized or unlicensed use of the PCR process, reverse transcription PCR process or isothermal DNA synthesis. It is the sole responsibility of the buyer to ensure that use of the product does not infringe the patent rights of third parties.