Fast and Reliable: Single-Tube Real-Time RT-PCR

High-quality, ready-to-use reagents for amplification of animal pathogen RNA

- Obtain results in approximately 1 hour
- Consistently amplify RNA targets with high sensitivity
- Versatile design allows for use with multiple PCR cyclers, primers, and probes
- Minimize cross-contamination potential with fast and simple reaction setup

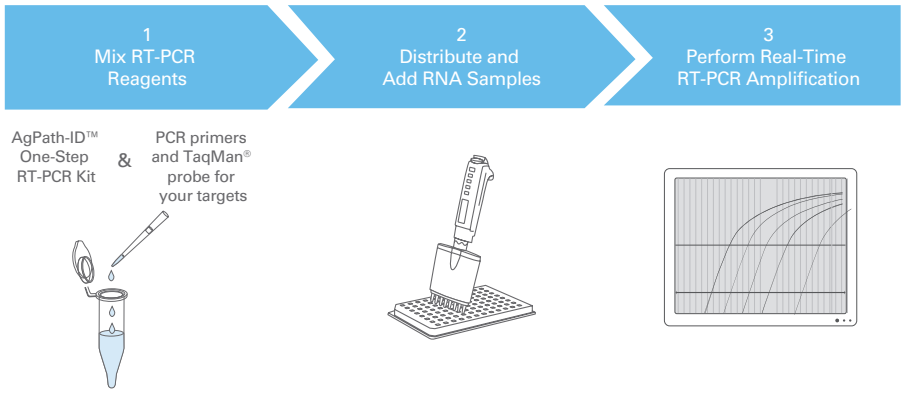

Figure 1. AgPath-ID™ One-Step RT-PCR Procedure Overview.

The AgPath-ID™ One-Step RT-PCR Kit is designed for sensitive, robust amplification of RNA targets using a rapid, single-tube real-time reverse transcription PCR (RT-PCR) strategy. You supply the PCR primers and TaqMan® probe (optional); the kit includes the buffers and enzymes needed for RT-PCR.

The kit is configured for fast and simple reaction setup, and reactions are assembled in a single tube, minimizing sample handling errors and expediting setup (Figure 1). Once the reactions are assembled, results are available in approximately 1 hour. The 25X RT-PCR Enzyme Mix is composed of Ambion's highly efficient ArrayScript™ Reverse Transcriptase, an MMLV RT capable of producing high cDNA yields, and AmpliTaq Gold® DNA Polymerase, the preferred hot-start DNA polymerase for specific target amplification. The 2X RT-PCR Buffer contains optimized reagents for efficient, robust reverse transcription and PCR. It also contains the passive reference dye, ROX™ Dye, for quantitative fluorescent signal normalization. Detection Enhancer is provided as an optional reagent for amplification of templates with high GC content or persistent secondary structure. Finally, a tube of ultrapure Nuclease-free Water is also provided.

Rigorous Linearity, Unsurpassed Sensitivity

To illustrate the consistent performance of the AgPath-ID™ One-Step RT-PCR Kit, serial dilutions of Virus A Control RNA containing 5 to 5 x 10^6 copies were amplified (Figure 2). The amplification plots show the consistent set of curves expected from highly efficient PCR, and the inset graph shows the reliability and efficiency of the PCR across a wide range of input template amounts.

Figure 3 shows amplification of a serial dilution of another control RNA, Virus B. Amounts of RNA were kept low (20 to 40,000 copies) in order to compare the analytical sensitivity of target amplification of the AgPath-ID™ kit and a competitor's RT-PCR reagent kit. The AgPath-ID™ One-Step RT-PCR Kit provided better analytical sensitivity than the competitor's kit across the dilution range. If your research demands consistent, reliable performance and maximum sensitivity, the AgPath-ID™ One-Step RT-PCR Kit delivers.

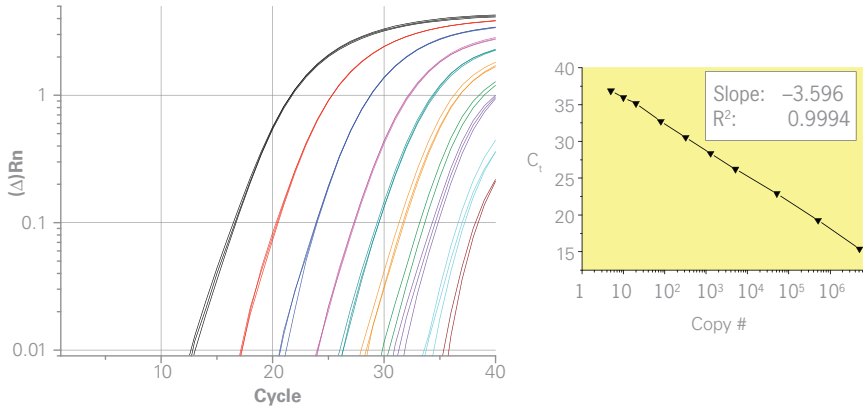

Figure 2. The AgPath-ID™ One-Step RT-PCR Kit Consistently Amplifies Across a Wide Dynamic Range of RNA Input. qRT-PCR targeting serially diluted Virus A Control RNA transcript (5 to 5 x 10^6 copies) demonstrates highly efficient and consistent performance. Reactions were performed on an Applied Biosystems 7500 Fast Real-Time PCR System.

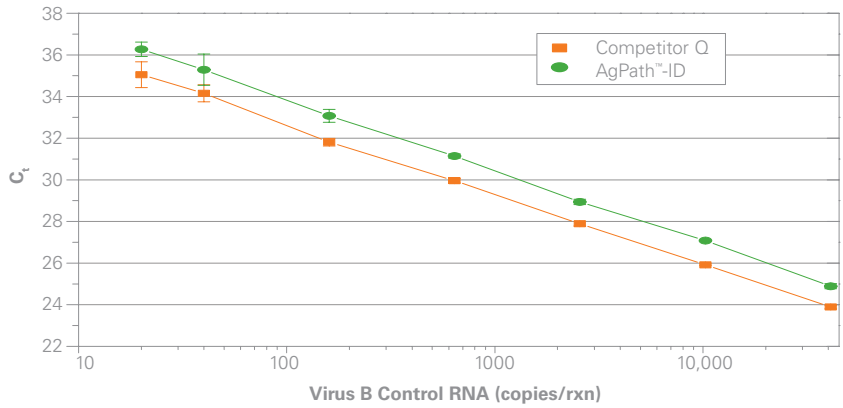

Figure 3. The AgPath-ID™ One-Step RT-PCR Kit Provides Higher Analytical Sensitivity Than a Competitor's Kit. Serially diluted Virus B Control RNA (20 to 40,000 copies) was amplified using the AgPath-ID™ One-Step RT-PCR Kit or a leading competitor's kit (Competitor Q). Reactions were performed on an Applied Biosystems 7500 Fast Real-Time PCR System. The AgPath-ID™ One-Step RT-PCR Kit provided earlier C_t values and better analytical sensitivity than the competitor's kit.

ORDERING INFORMATION

Description	Size	P/N
AgPath-ID™ One-Step RT-PCR Kit	100 rxns	AM1005
AgPath-ID™ One-Step RT-PCR Kit	500 rxns	4387424
AgPath-ID™ One-Step RT-PCR Kit	1000 rxns	4387391

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