

qRT-Probe Mix Separate ROX (#6701)

Introduction

qRT-Probe Mix Separate ROX is a universal one-step probe mix for robust, sensitive, and fast RT-qPCR, ideal for rapid detection and quantification of a variety of RNA templates, such as mRNA, viral RNA, and total RNA. The mix utilizes an antibody-mediated hot-start Taq polymerase and reverse transcriptase, along with PCR enhancers, an RNase inhibitor, and stabilizers for efficient cDNA synthesis and real-time PCR amplification in a single reaction.

Method

qRT-Probe Mix was compared to two other suppliers. Two dilution series of RNA from SARS-CoV-2 Wuhan strain and Delta strain B.1.617.2 were used as templates. Three increasing concentrations (10-100-1000 copies) were tested in triplicate. The TaqMan oligos targeted a 83 bp fragment of the ORF1 gene. The samples were run as per Table 1 on a BioRad CFX Opus 96 instrument.

Thermal cycle conditions

Step	Temperature	Time	Cycles
1.	45°C	10 minutes	1 cycle
2.	95°C	2 minutes	1 cycle
3.	95°C	5 seconds	40 cycles
4.	60°C	30 seconds	40 cycles

Results

Fluorescence intensity for qRT-Probe Mix and the two alternative suppliers is shown in Figure 1. Data comparison using SARS-CoV-2 Wuhan strain and SARS-CoV-2 Delta strain (B.1.617.2) as templates is shown in Figures 2 and 3, respectively.

Conclusions

1. qRT-Probe Mix displayed similar or better performance compared to the alternative suppliers.
2. qRT-Probe Mix amplified well both SARS-CoV-2 Wuhan and SARS-CoV-2 Delta (B.1.617.2) samples.

Fluorescence intensity comparison

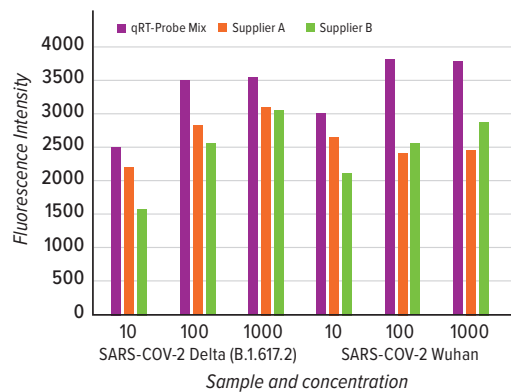


Figure 1. qRT-Probe Mix comparison to two alternative suppliers.

qRT-Probe Mix (SARS-CoV-2 Wuhan)

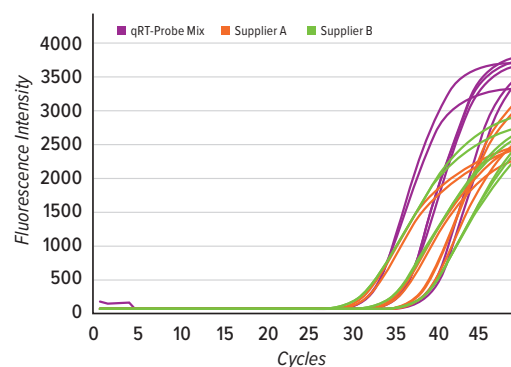


Figure 2. qRT-Probe Mix comparison against two alternative suppliers with SARS-CoV-2 Wuhan as a template.

qRT-Probe Mix (SARS-CoV-2 Delta, B.1.617.2)

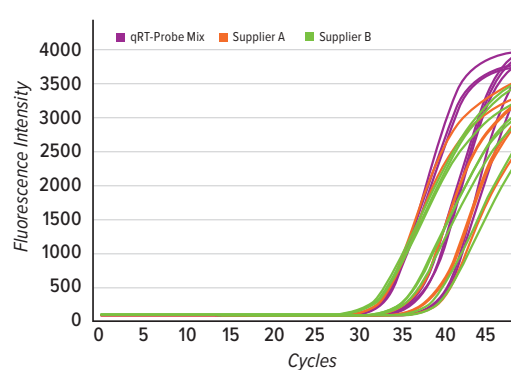


Figure 3. qRT-Probe Mix comparison against two alternative suppliers with SARS-CoV-2 Delta (B.1.617.2) as a template.

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