Application Note

qProbe Mix Separate ROX (#2401)

Introduction

qProbe Mix Separate ROX is a universal one-step probe mix for robust, sensitive, and fast qPCR. The mix uses state-of-the-art technologies with an antibody-regulated hot-start Taq polymerase for real-time PCR amplification of single or multiplex DNA targets in a single reaction. The optimized buffer chemistry and PCR enhancers and stabilizers enable rapid and sensitive qPCR. qProbe Mix is ideal for the detection and quantification of a variety of DNA targets including complex and GC- and AT-rich DNA targets. A separate tube of ROX reference dye is also included.

Method

qProbe Mix was compared to another supplier. cDNA created from mouse liver RNA was used as a template at three concentrations, with three replicates at each concentration. The TaqMan oligos targeted four mouse housekeeping genes, each with different fluorescent reporter.

The singleplex and multiplex reactions were run 45 cycles as per Table 1 on a Roche Lightcycler 96 instrument.

Thermal cycle conditions

Step	Temperature	Time	Cycles
1.	95°C	2 minutes	
2.	95°C	10 seconds	45 cycles
3.	60°C	60 seconds	

Results

Singleplex and multiplex comparison data are show in Figures 1 and 2, respectively.

qProbe Mix comparison (Singleplex)

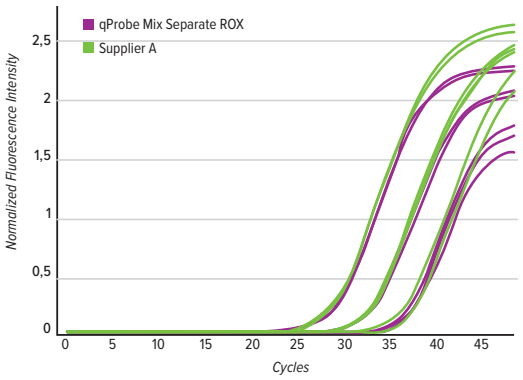

Figure 1. *qProbe Mix comparison against alternative supplier in a singleplex reaction.*

qProbe Mix comparison (Multiplex)

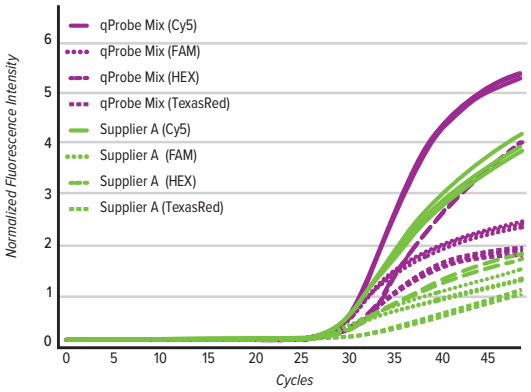

Figure 2a. *qProbe Mix comparison against alternative supplier in a multiplex reaction (data combined).*

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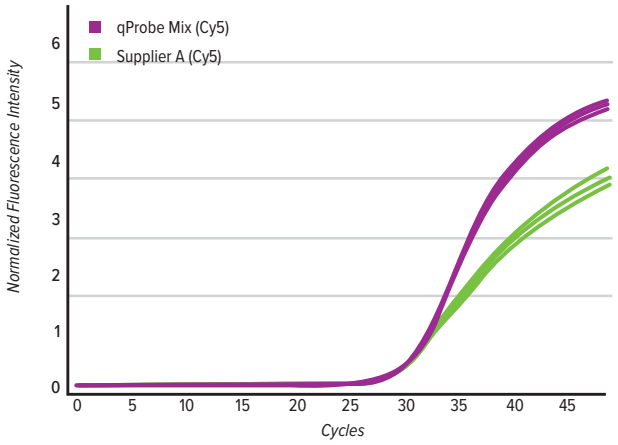
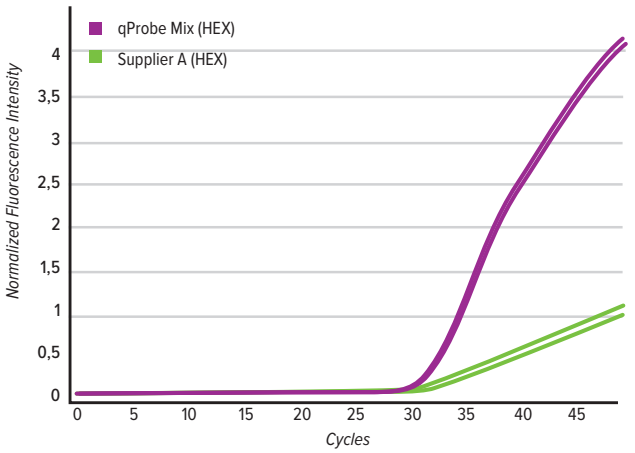
Results

Singleplex and multiplex comparison data are show in Figures 1 and 2, respectively.

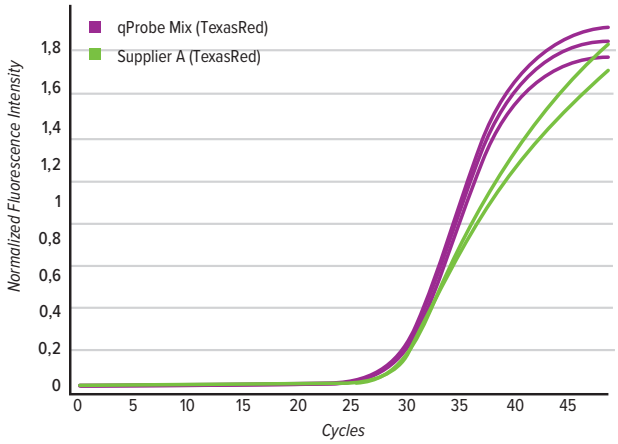
qProbe Mix comparison (Multiplex)



qProbe Mix comparison (Multiplex)



qProbe Mix comparison (Multiplex)



qProbe Mix comparison (Multiplex)

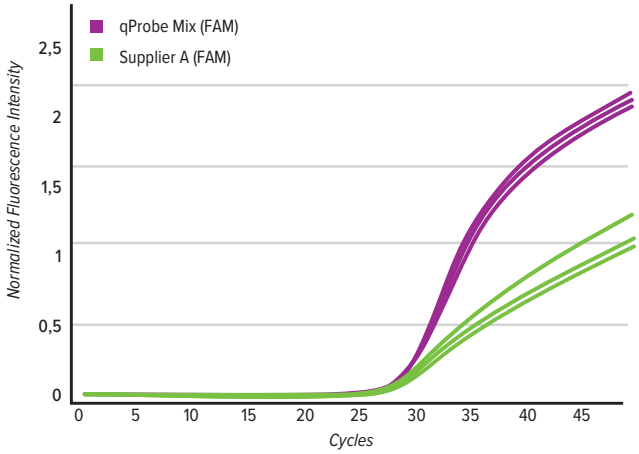


Figure 2b. *qProbe Mix comparison against alternative supplier in a multiplex reaction (data separated by channel).*

Conclusions

qProbe Mix displayed similar performance compared to an alternative supplier in singleplex reaction.

In multiplex, qProbe Mix outperformed the alternative supplier and displayed better amplification yield.

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