Real-time PCR master mixes and instrument compatibility

ThermoFisher SCIENTIFIC

Generate reliably accurate data on any real-time PCR platform

Applied Biosystems™ master mixes for real-time PCR (qPCR) and quantitative reverse transcription PCR (RT-qPCR) are compatible with any qPCR instrument, from any manufacturer. Whether you're using Applied Biosystems™ SYBR™ Green or TaqMan™ probe-based detection chemistry, our master mixes are designed to help deliver high sensitivity and specificity on your qPCR platform of choice.

Frequently asked questions:

Does using an Applied Biosystems master mix on a non–Applied Biosystems instrument deliver less than optimal performance?

No. Applied Biosystems master mixes are designed to deliver excellent performance across qPCR instrument platforms. The buffers are optimized to handle slight temperature variations from instrument to instrument. Results tend to be more dependent on assay design.

Do I need to adjust any parameters when using an Applied Biosystems master mix with my non–Applied Biosystems qPCR instrument?

Sometimes. Slight optimization of denaturation and annealing/extension temperatures or times may be necessary. Additionally, we recommend verifying the reaction volumes. Different instruments may have different optimal reaction volumes, and you might need to adjust accordingly.

Is your Applied Biosystems master mix containing ROX™ dye compatible with my non–Applied Biosystems qPCR instrument?

Yes, but whether or not your instrument uses ROX as a passive reference dye depends on the instrument's detection capabilities. Some non–Applied Biosystems instruments use ROX dye, while others do not require it or may use different reference dyes. When selecting a reference dye, refer to your instrument's documentation and perform calibration if necessary. Most Applied Biosystems master mixes include ROX dye, but some contain Mustang Purple™ dye or no reference dye.

If I am using an Applied Biosystems master mix that contains ROX dye, do I need to adjust the settings on my non–Applied Biosystems instrument?

Please refer to your instrument's user manual for information about passive reference dye settings.

How do I normalize my data using an Applied Biosystems master mix on a non–Applied Biosystems instrument?

Select ROX dye as the passive reference dye in the analysis software.

Can Applied Biosystems master mixes be used for multiplexing with my non–Applied Biosystems instrument?

Typically yes. While Applied Biosystems master mixes can be used for multiplexing with Applied Biosystems and non-Applied Biosystems instruments, careful consideration and optimization of fluorophore compatibility, passive reference dye, and assay conditions are essential for successful implementation. Please ensure that the fluorophores used in your multiplex assay are compatible with the optical filters and detection capabilities of your instrument. Learn more about qPCR multiplexing.

Can I perform fast cycling using an Applied Biosystems master mix on a non–Applied Biosystems instrument?

Yes, if the master mix user guide indicates fast cycling capability.

Are there any specific additives or enhancers required when using an Applied Biosystems master mix on my non–Applied Biosystems instrument?

No. There are no additives or enhancers required to use our master mixes on instruments from other manufacturers.

Find an optimized master mix for your qPCR experiment at **thermofisher.com/mastermix**

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