Fast results using Mic qPCR Cycler and RealQ Plus 2x Master Mix

Apex Master Mixes:

- Premixed all-in-one 2x Hot Start solution for qPCR
- High efficiency for accurate experiments
- Reaction set-up at room temperature
- Pre-assembled reactions stable at room temp. > 48 hrs
- High specificity, stability and reproducibility
- Reliable quantification

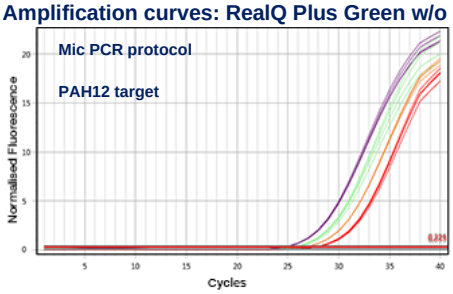
FAST 2-STEP PROTOCOL

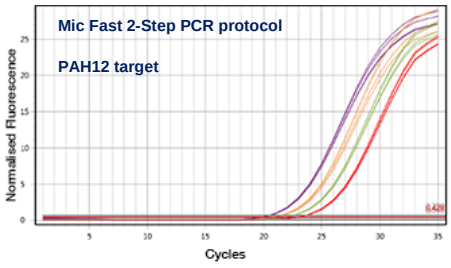
Apex 2x Master Mix Green w/o ROX gives excellent results using Mic qPCR Cycler with a fast 2-step PCR protocol

Apex 2x Master Mix Green without ROX provides fast, reliable and quantifiable qPCR results using the Mic qPCR cycler.

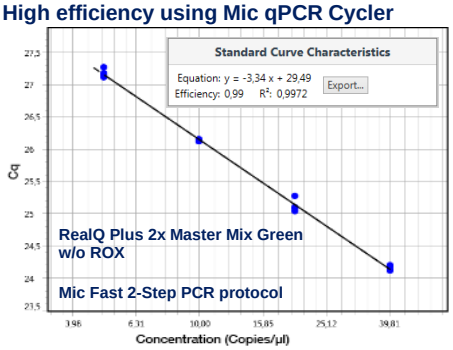
qPCR Setup: Apex 2x Master Mix Green without ROX primers for targeting PAH12 (203 bp) and 4 concentrations of gDNA (40 ng, 20 ng, 10 ng and 5 ng). All DNA concentrations were tested in quadruple replicates. The PCR reaction mix was run on Mic qPCR Cycler with settings according to the Mic PCR protocol or Mic Fast 2-step protocol. Melt curve analysis was performed to test specificity. All results were analyzed using the Mic qPCR Cycler software.

Amplification curves: RealQ Plus Green w/o ROX





High efficiency using Mic qPCR Cycler



The qPCR standard curve showed a strong linear correlation between the C_q values and log [template DNA]. The efficiency calculated from the curve slope is 99%.

Mic PCR protocol:

Cycler step	Temperature	Duration	Cycles
Initial heating	95 °C	15 min.	1
Denaturation	95 °C	20 sec.	
Annealing	60 °C	20 sec.	35
Elongation	72 °C	20 sec.	
Melt curve analysis	Instrument default settings		1

Mic Fast 2-Step PCR protocol:

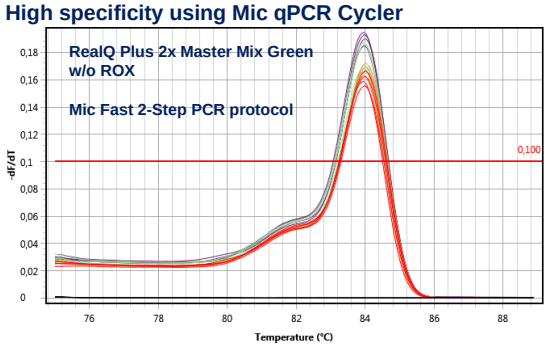
Cycler step	Temperature	Duration	Cycles
Initial heating	95 °C	15 min.	1
Denaturation	95 °C	5 sec.	40
Elongation	60 °C	5 sec.	
Melt curve analysis	Instrument default settings		1

Cq values for indicated template DNA Concentrations ng/sample

Mic PCR protocol	40 ng	20 ng	10 ng	5 ng
C_q values	19.70	20.07	21.76	22.80
	19.69	20.07	21.72	22.80
	19.80	20.94	21.87	22.91
	19.79	20.79	21.83	22.91
Average	19.745	20.7825	21.795	22.855
SD	0.058	0.113	0.068	0.064

Mic Fast 2-Step PCR protocol	40 ng	20 ng	10 ng	5 ng
C_q values	24.18	25.03	26.15	27.11
	24.11	25.09	26.12	27.17
	24.19	25.07	26.12	27.27
	24.14	25.27	26.13	27.14
Average	24.16	25.12	26.13	27.17
SD	0.037	0.106	0.014	0,069

High specificity using Mic qPCR Cycler



Melt curve analysis for the amplified pAH12 target. Mic software was used