



QPCR-Master Mix

A comprehensive comparison of *real time* PCR Master Mixes

- PJK Green DYE Master Mix was tested against
- four competitors' SYBR Green Master Mixes on
- three QPCR instruments

Assay



- All Master Mixes were run on the same plate
- Master Mixes were tested for their ability to amplify a ten fold serial dilution of various templates
- Reaction efficiency, slope, sensitivity and reproducibility were determined

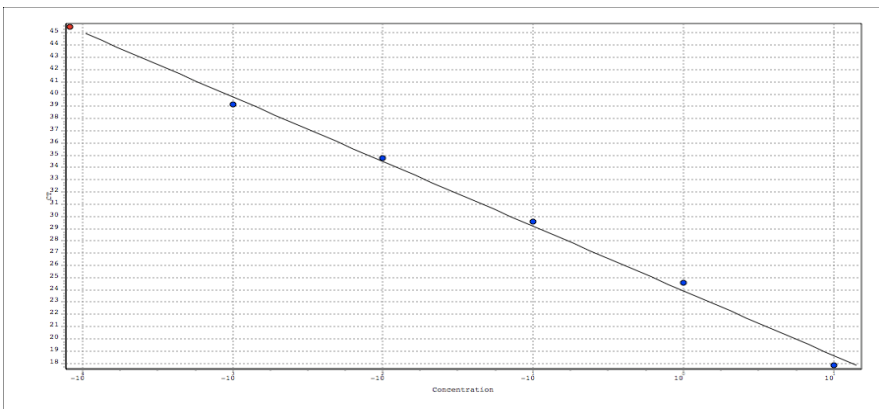
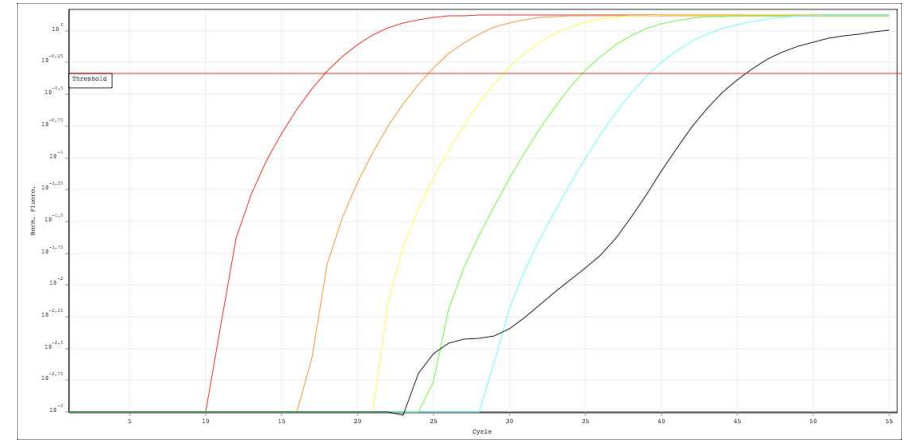
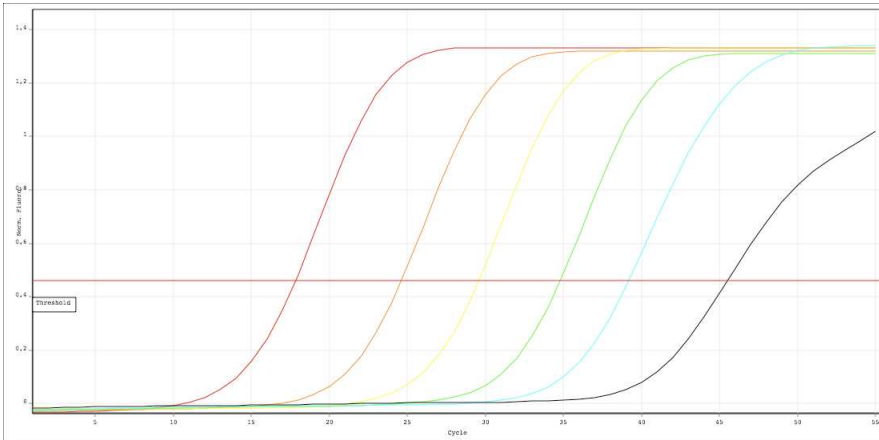
Comparative overview of PCR performance



Competitor	Slope	Y intercept	Efficiency	Correlation Coefficient
Competitor A	-5,304	24,548	54,4%	0,994
Competitor E	-4,148	12,418	74,2%	0,983
Competitor S	-4,325	19,782	70,3%	0,991
PJK	-3,317	16,961	100%	0,991
Theoretical Optimum	-3,3 to -3,6	below 25	100%	above 0,98

Competitor A

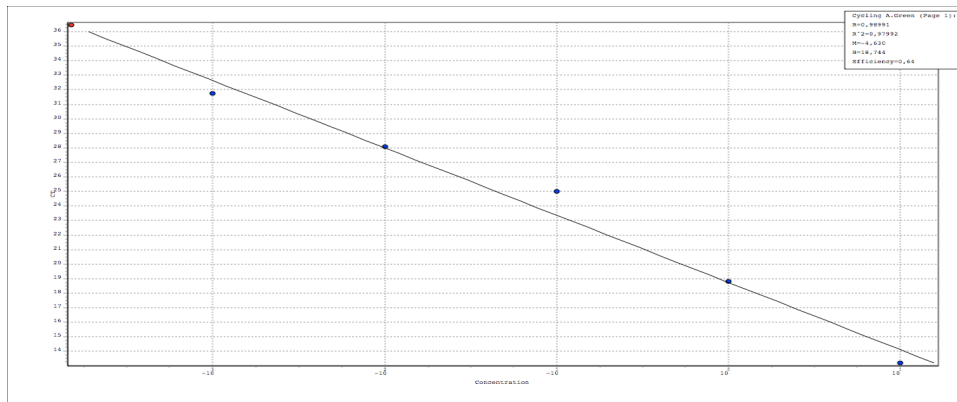
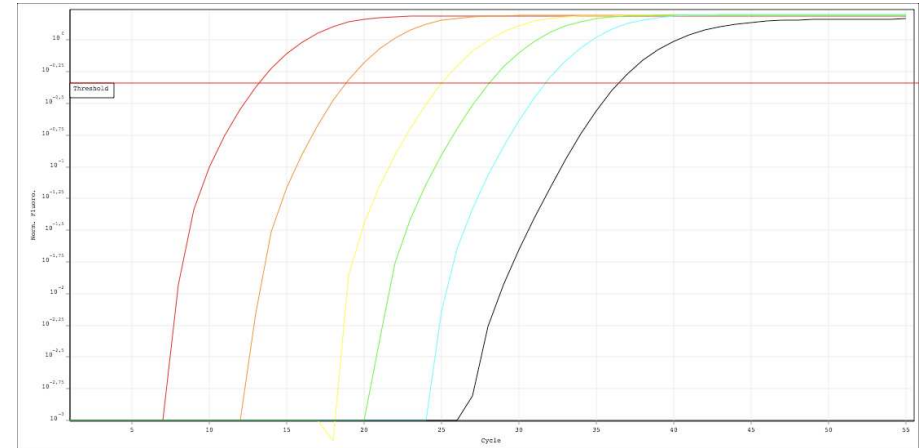
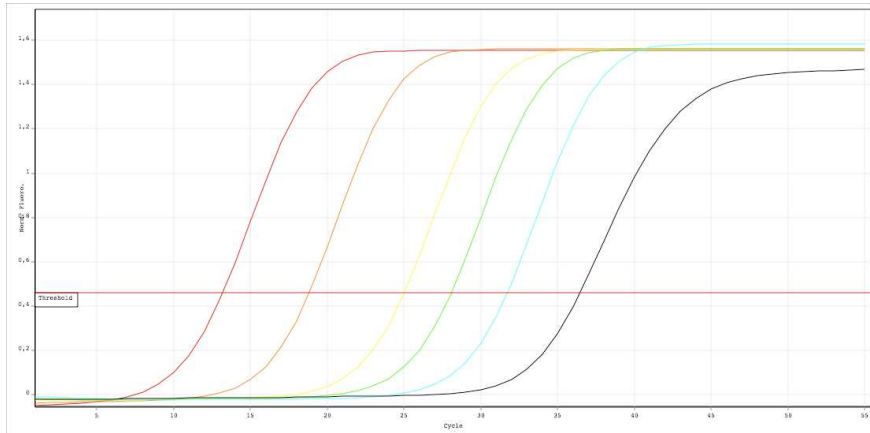
(on Rotorgene 6000®)



Slope	Y intercept	Efficiency	Correlation Coefficient
-5,304	24,548	54,4%	0,994

Competitor E

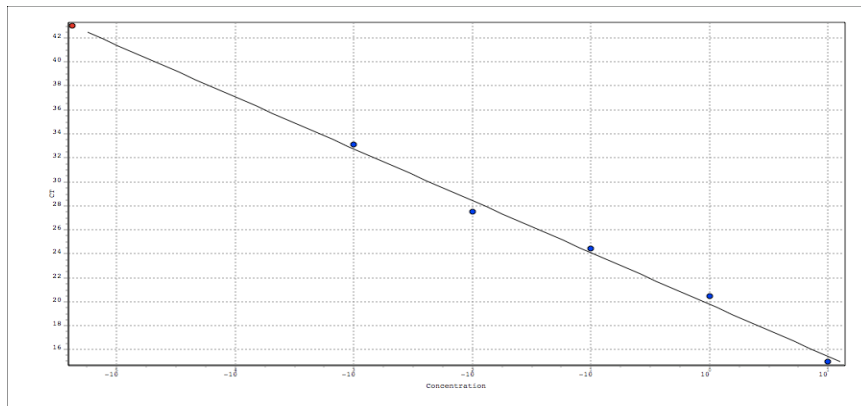
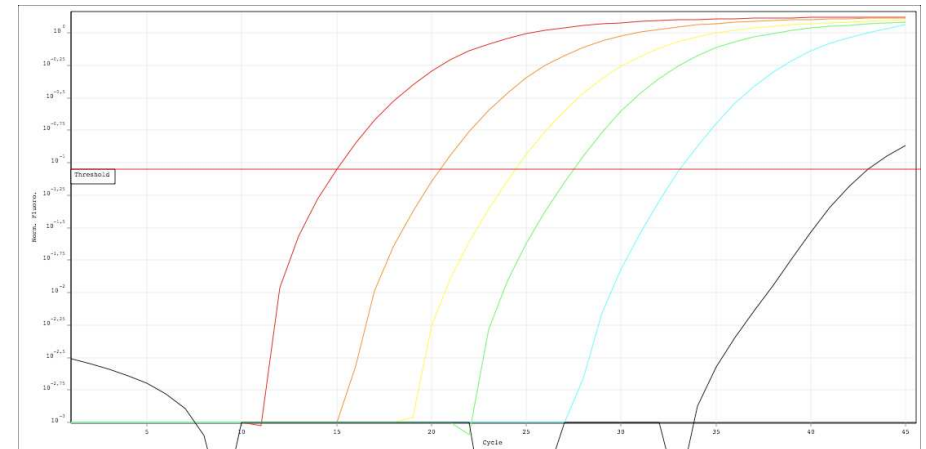
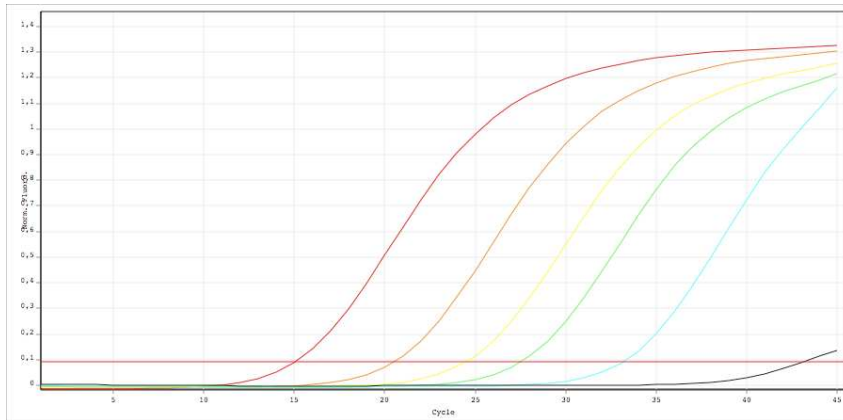
(on Rotorgene 6000®)



Slope	C _t	Efficiency	R ²
-4,148	12,418	74,2%	0,983

Competitor S

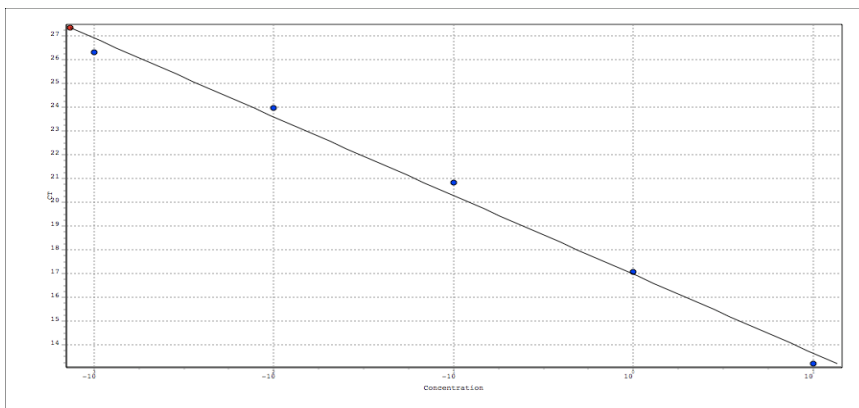
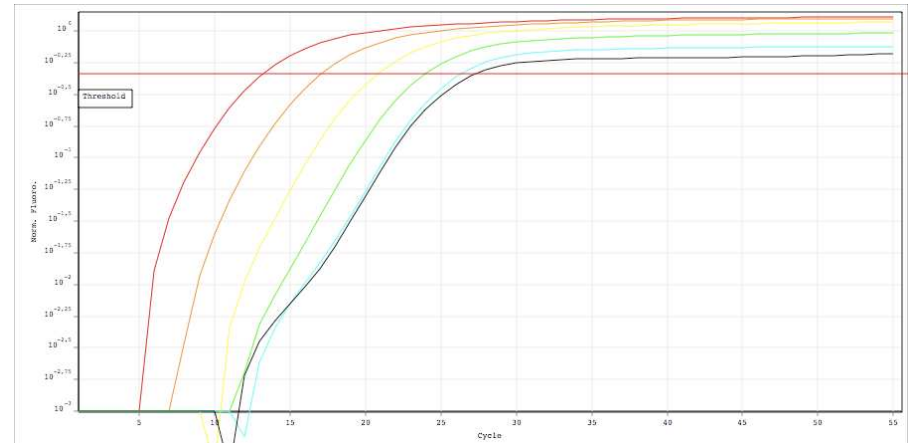
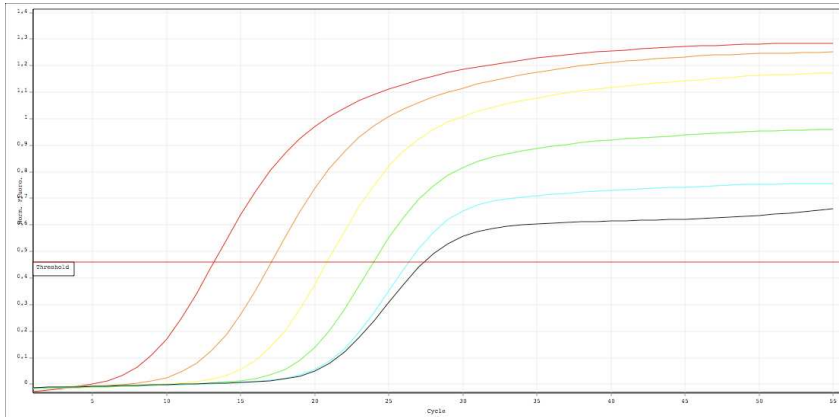
(on Rotorgene 6000®)



Slope	C _t	Efficiency	R ²
-4,325	19,782	70,3%	0,991

PJK

(on Rotorgene 6000[®])

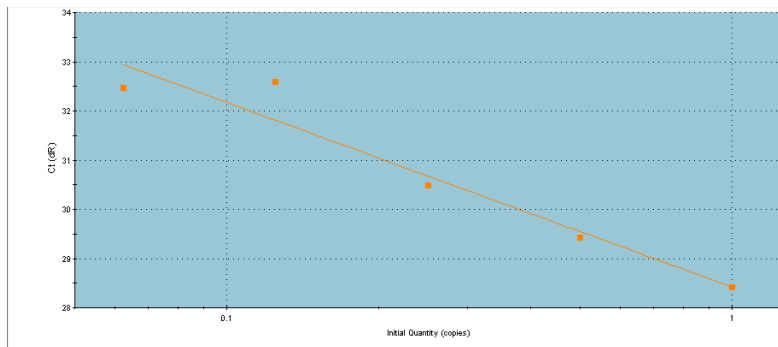
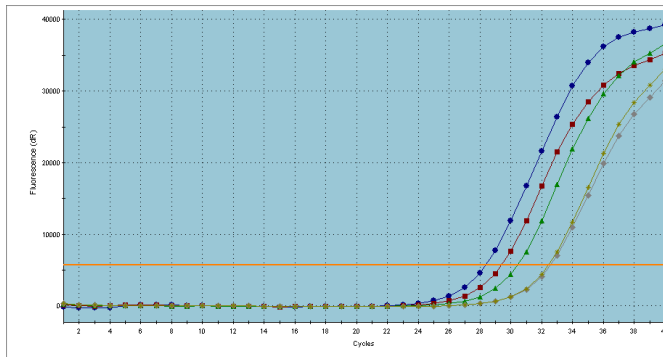


Slope	C _t	Efficiency	R ²
-3,317	16,961	100%	0,991

Comparison of efficiencies

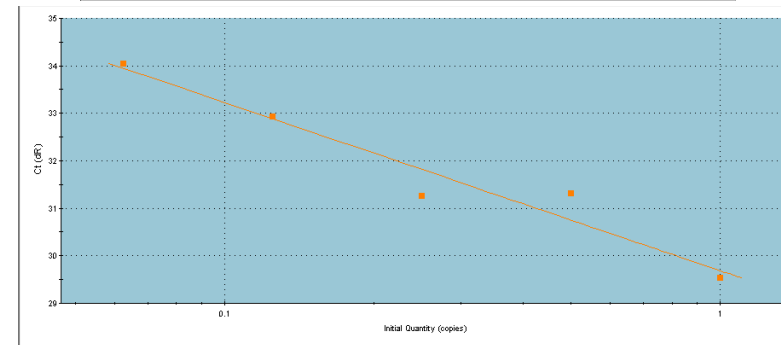
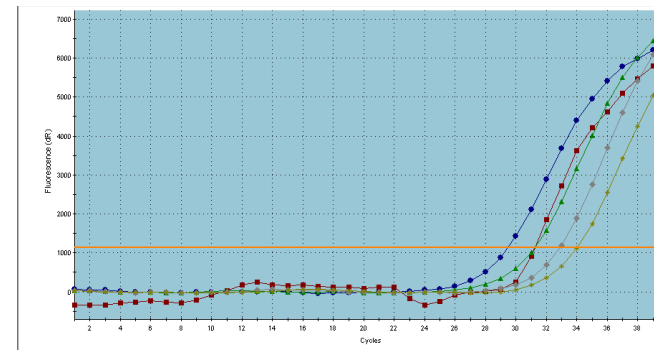
(cdc 2 gene run on Stratagene Mx3000P®)

Competitor I



Slope	Y intercept	Efficiency	Correlation Coefficient
-3,75	28,42	84,8%	0,935

PJK

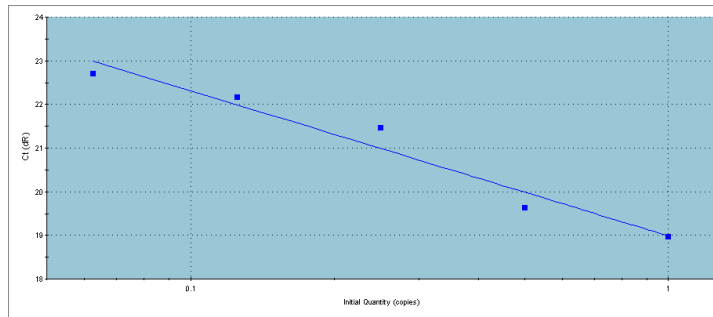
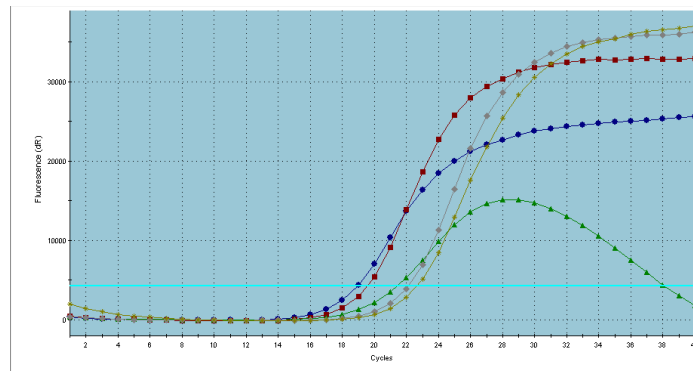


Slope	Y intercept	Efficiency	Correlation Coefficient
-3,45	29,69	91,6%	0,946

Comparison of efficiencies

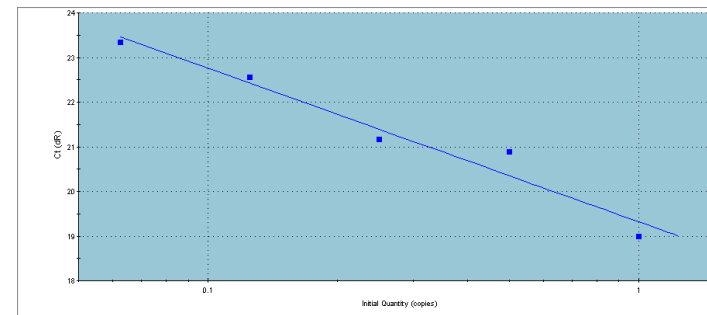
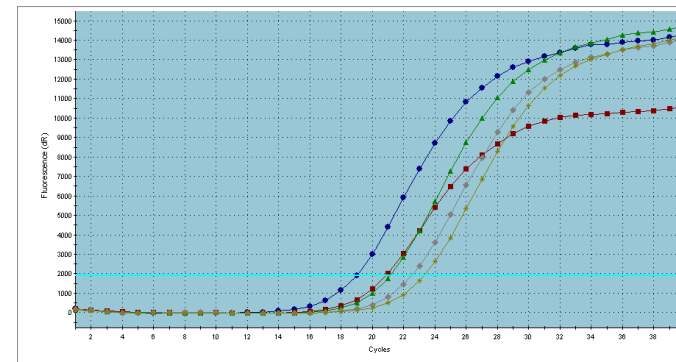
(*GAPDH* gene run on Stratagene *Mx3000P*[®])

Competitor I



Slope	Y intercept	Efficiency	Correlation Coefficient
-3,328	18,99	99,7%	0,956

PJK



Slope	Y intercept	Efficiency	Correlation Coefficient
-3,438	19,32	95,4%	0,958



Specificity

- Melting curves were performed at the end of the QPCR to demonstrate the specificity of the amplification
- The success of a QPCR is verified by observing only one product peak without unspecific amplification peaks

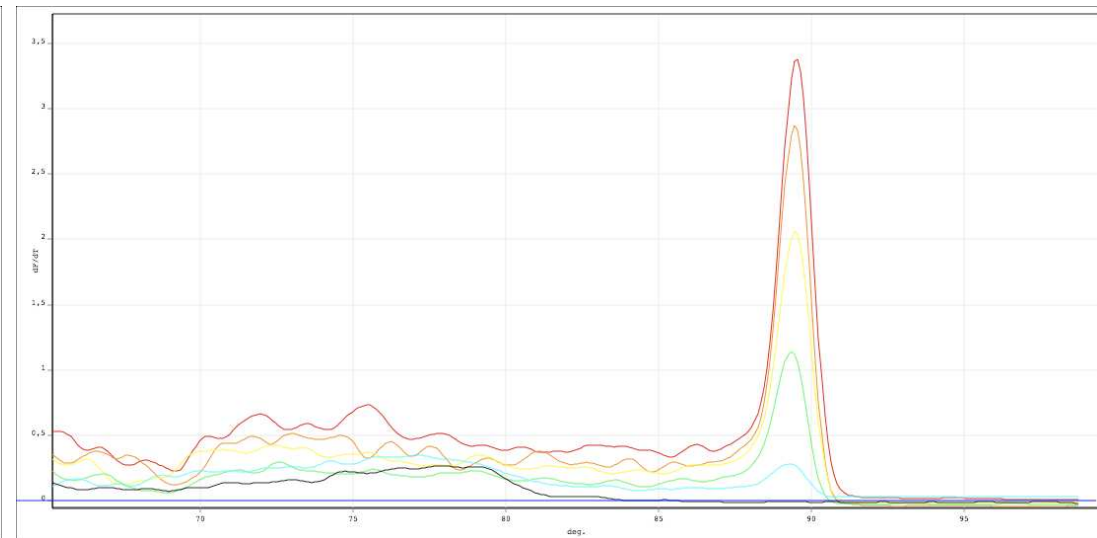
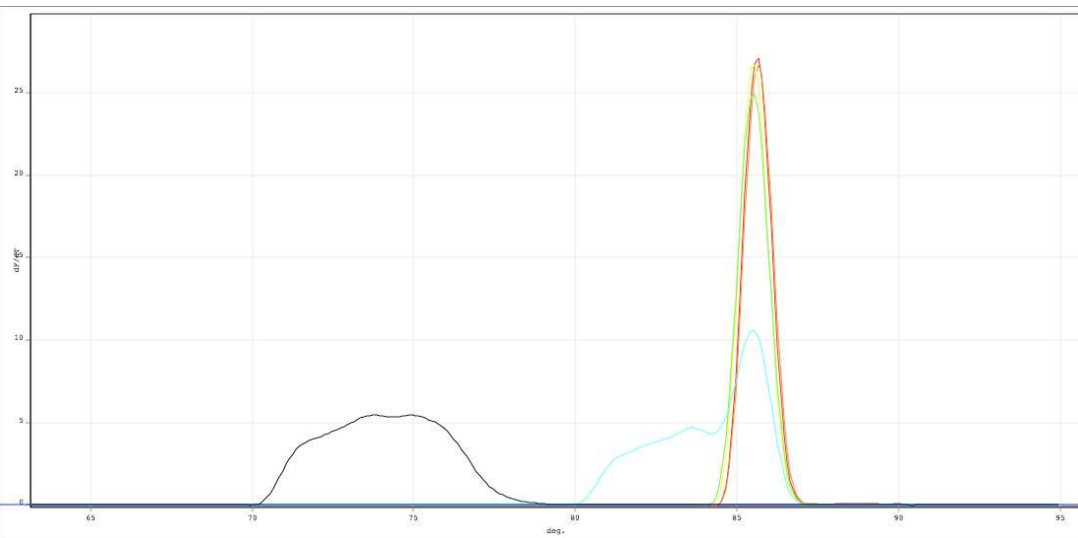


Comparison of specificities

(Competitor A against PJK, run on *Rotorgene 6000*[®])

Competitor A

PJK



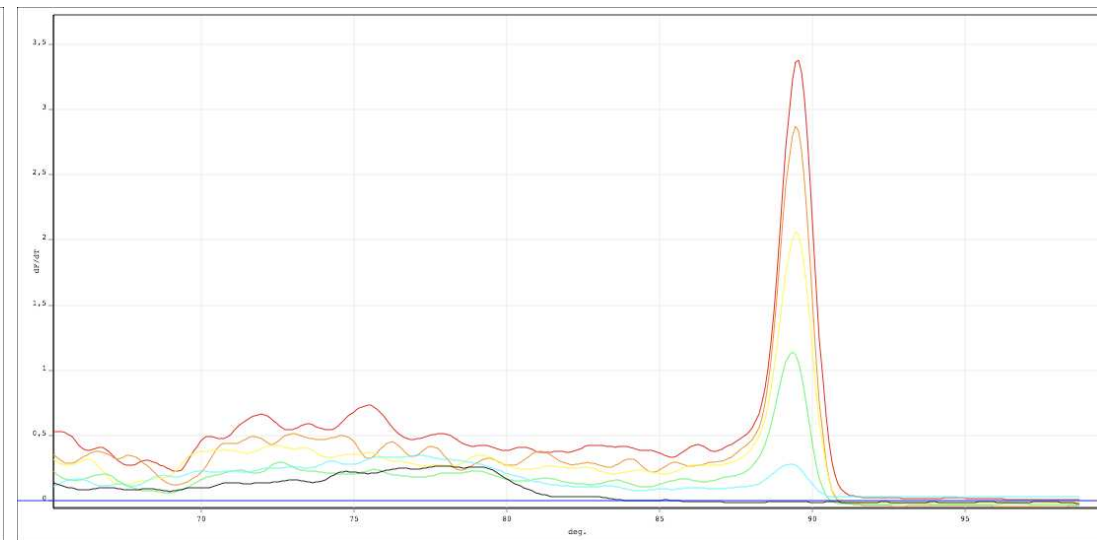
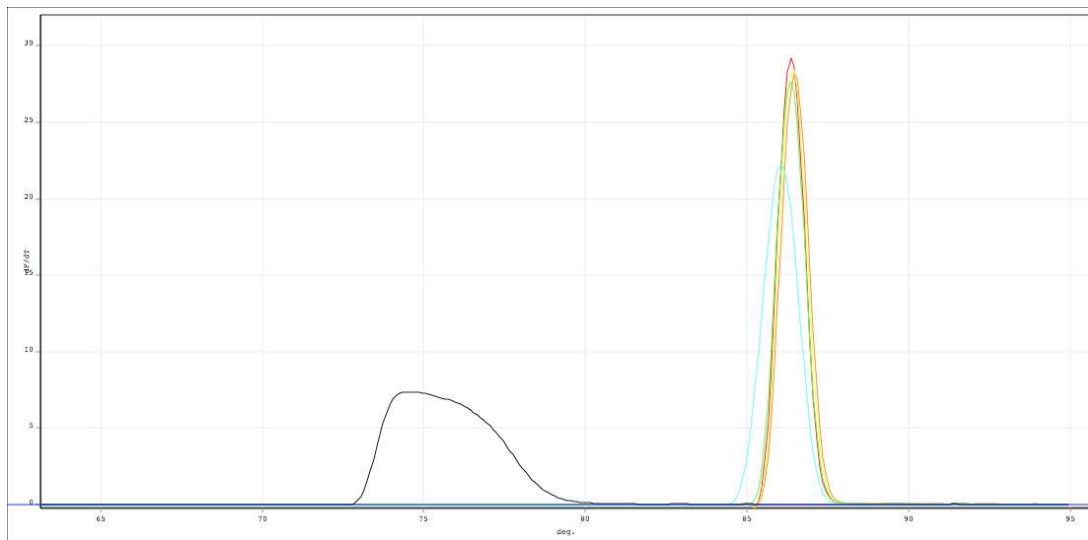


Comparison of specificities

(Competitor E against PJK, run on *Rotorgene 6000*[®])

Competitor E

PJK



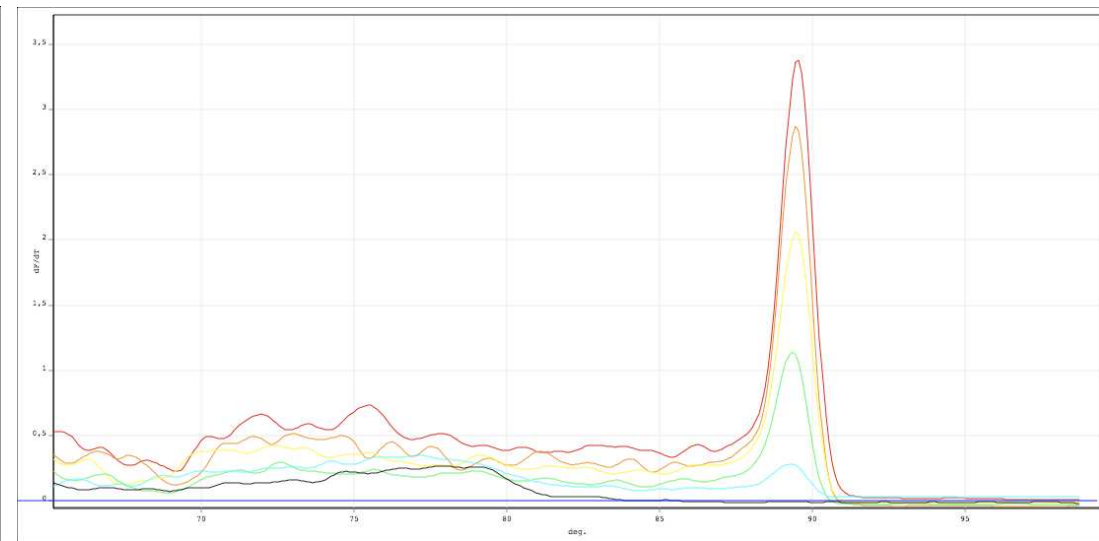
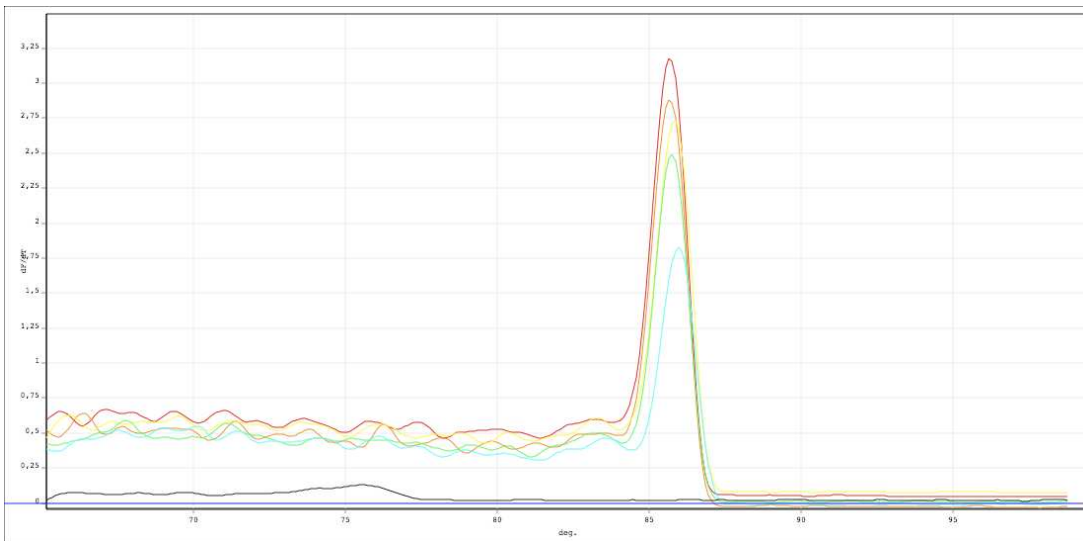


Comparison of specificities

(Competitor S against PJK, run on *Rotorgene 6000*[®])

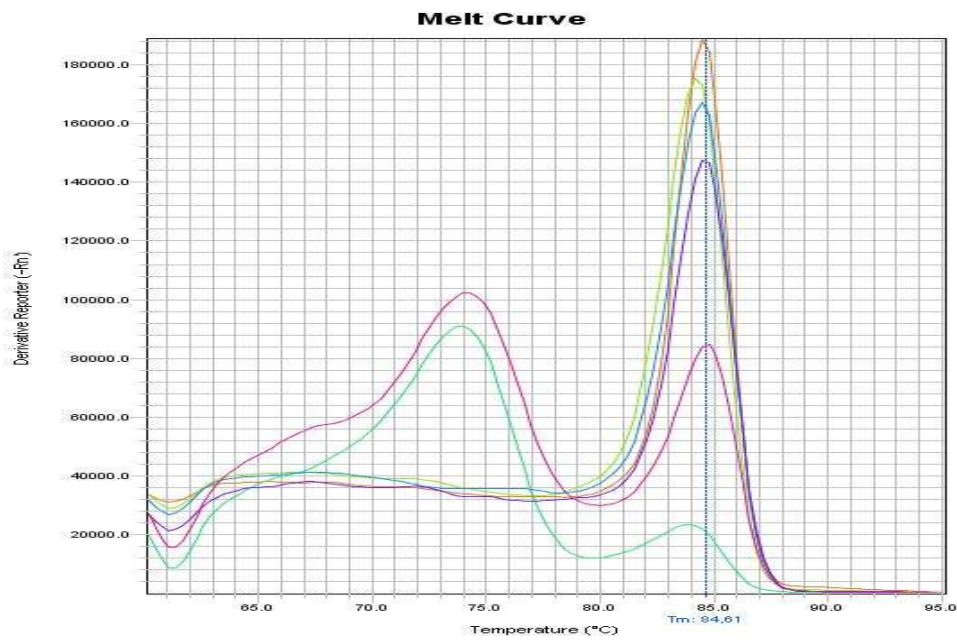
Competitor S

PJK

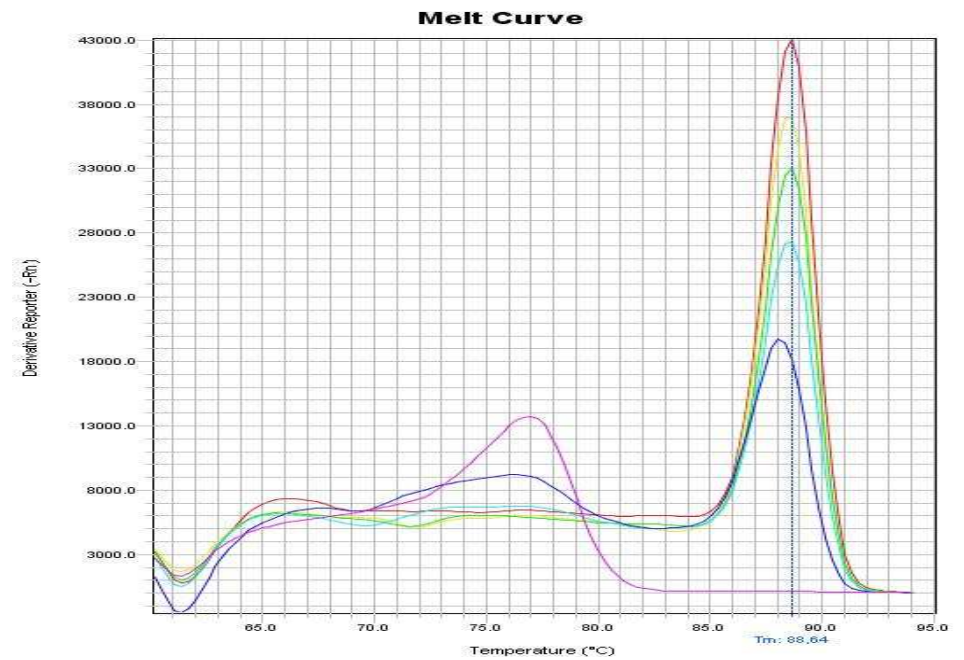


Comparison of specificities

(Competitor A against PJK, run on ABI StepOne®)



Competitor A

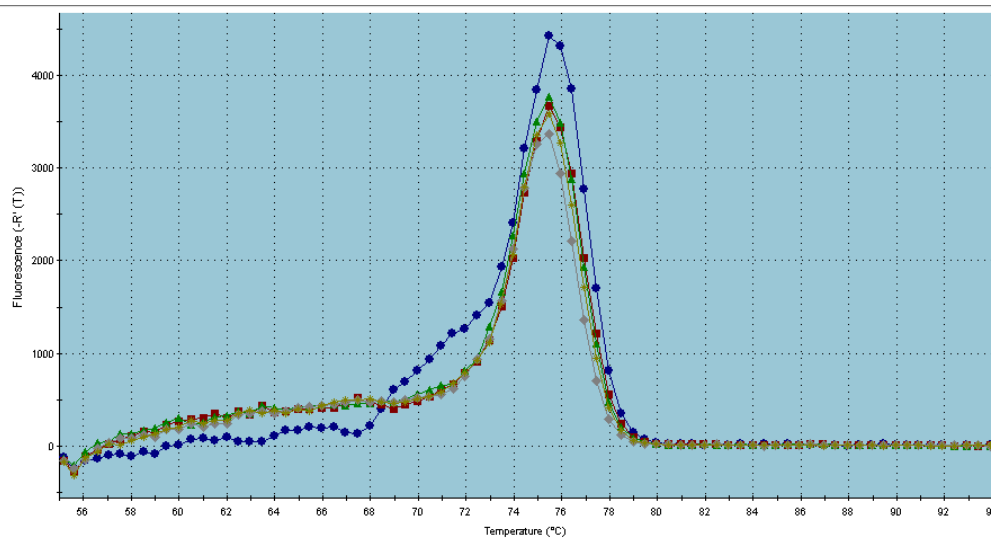


PJK

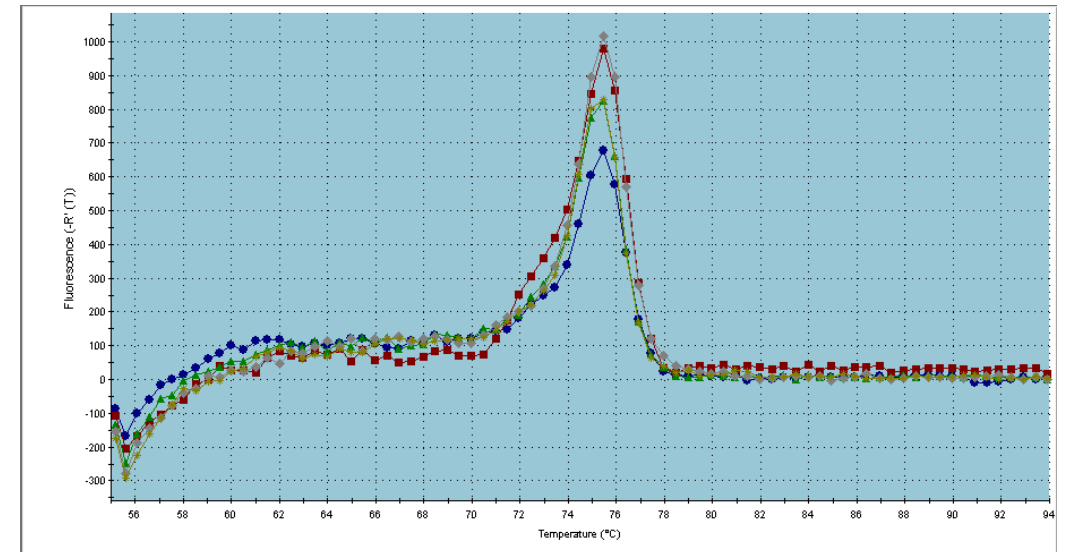
Comparison of specificities

(Competitor I against PJK, *cdc 2* gene run on Stratagene *Mx3000P*[®])

Competitor I



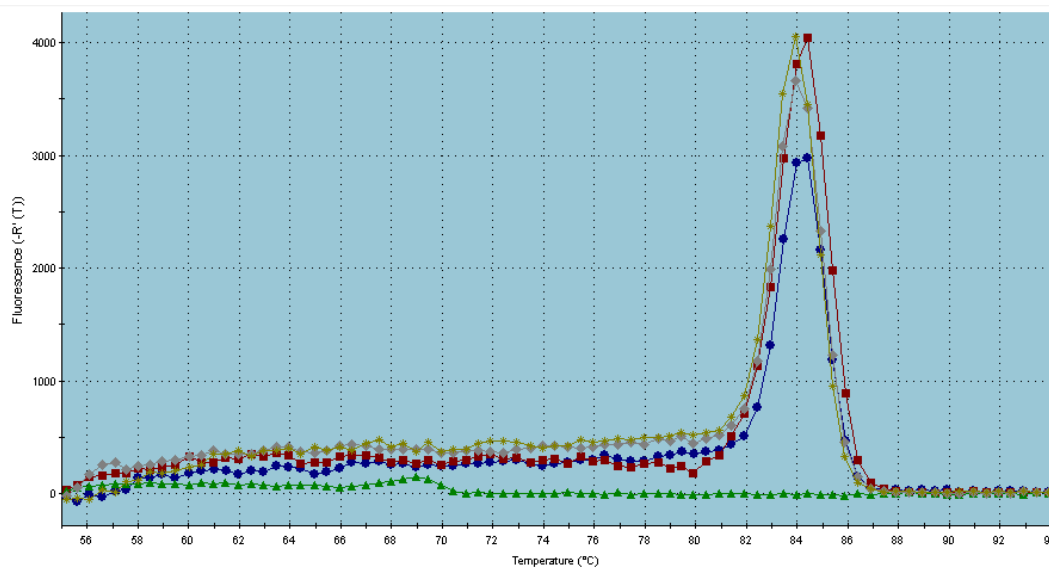
PJK



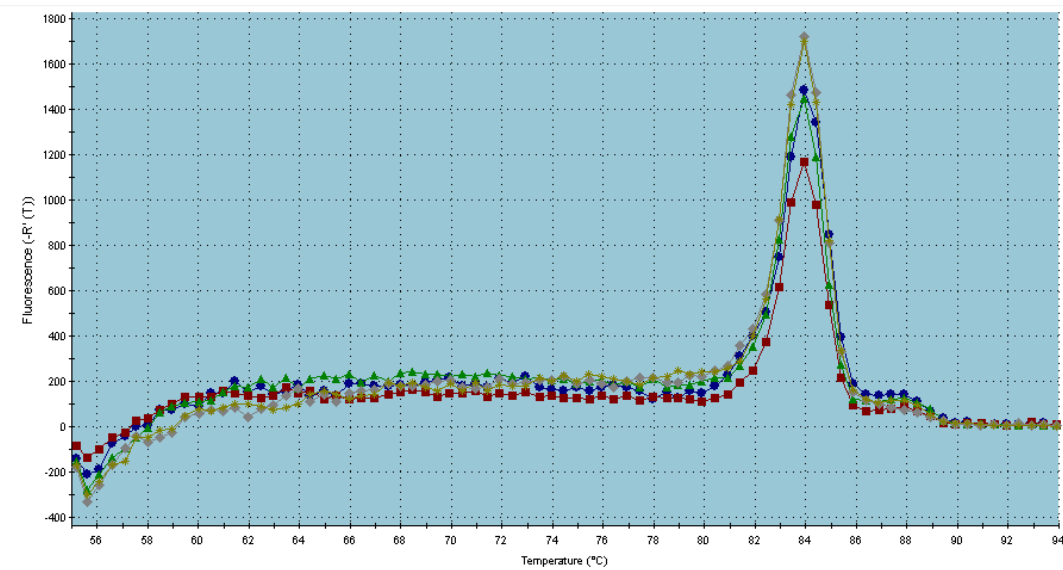
Comparison of specificities

(Competitor I against PJK, *GAPDH* gene run on Stratagene *Mx300P*[®])

Competitor I



PJK



Conclusion



- Excellent performance on various templates
- PJK's Green DYE Master Mix yields equal or superior results compared to major competitors
- Highly optimized manufacturing processes allow for first class quality and competitive pricing