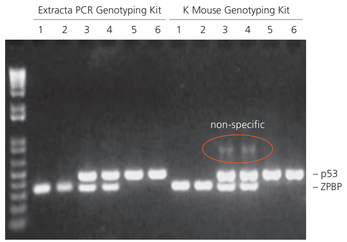
Conventional PCR Genotyping – Accustart™ II Genotyping Kit

Completely reagent-based system enables reliable PCR genotyping with minimal pipetting skill.

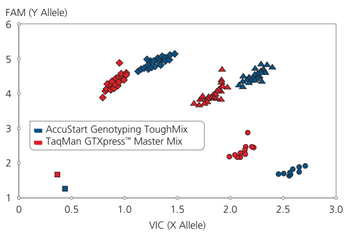


4.1 Two mouse tail snips (2.5 mm) were extracted according to the recommended conditions for each kit. The volume of each extract was brought to 300 µl and diluted 1/20 with TE buffer. 5 µl of diluted extract was used in a 25 µl PCR reactions.

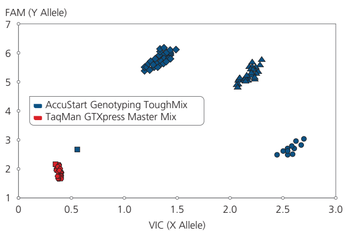
SNP Genotyping (Real-Time qPCR) – AccuStart Genotyping ToughMix

Genotyping ToughMix enables probe-based genetic analysis directly from crude extracts, DBS punches, plant tissue, and clinical specimens.

ToughMix vs Competitor



Influence of PCR inhibitor



4.1 Comparison to conventional master mixes AccuStart Genotyping ToughMix stands up to the challenge where other genotyping master mixes fall apart. ToughMix can be used with clean templates where it generates higher fluorescent signal and tighter clusters than the leading competitors.

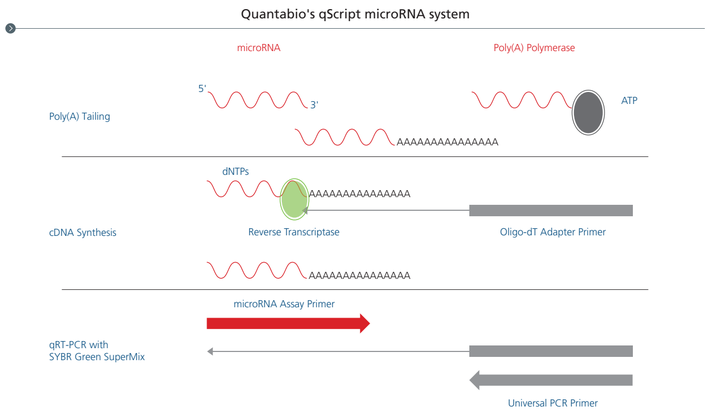
4.2 Comparison to conventional master mixes. In the presence of a common PCR inhibitor, humic acid (50 ng/µl), the competitors system is completely shut down while ToughMix delivers robust, accurate results.

ORDER INFO

Please visit **www.quantabio.com** for ordering information.

microRNA Expression Profiling:

Highly regarded 3-component system enables detection and quantification of miRNA and other small non-coding RNA with superior sensitivity.



qScript® microRNA cDNA Kit

Compatible with either miRNA-enriched or total RNA samples. Delivers a log-fold greater sensitivity in comparison to stem-loop priming methods.

miRNA Primer Design

Design your own Assays specific to your miRNAs. The sequences to our Oligo-dT Adapter Primer and Universal Primer are now available by downloading the tech guide at **www.quantabio.com/miRNA**.

PerfeCTa® SYBR Green SuperMix

Supports robust amplification & detection of miRNA.

Check out what others thought of our miRNA system: In a publication from Nature Methods: *Evaluation of quantitative miRNA expression platforms in the microRNA quality control (miRQC)*, Quantabio's miRNA technologies outperformed the competition for both accuracy AND reproducibility.

www.nature.com/nmeth/journal/v11/n8/abs/nmeth.3014.html

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Featured Product Guide

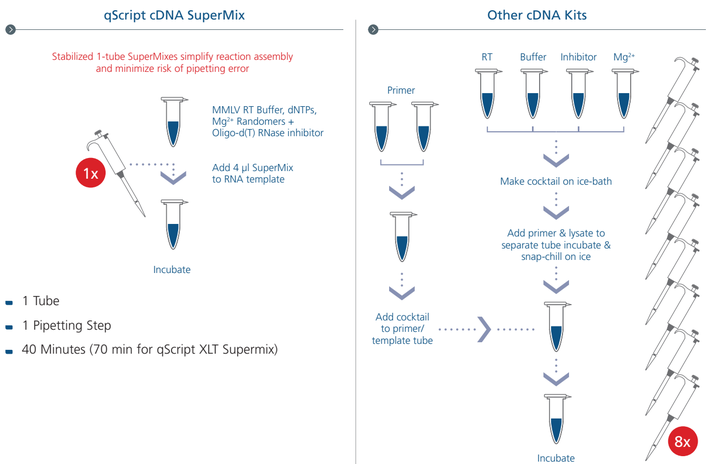
Quantabio
We put the Q in qPCR

cDNA synthesis kits: qScript cDNA SuperMix / XLT cDNA SuperMix

Single-tube Supermix minimizes pipetting steps, simplifies reaction assembly, and improves overall accuracy. XLT Supermix delivers superior sensitivity and yield.

FEATURES AND BENEFITS:

- 5x concentrated SuperMix maximizes input volume with dilute samples of total RNA
- Superior results across a wide dynamic range of input RNA (10^8 fold)
- Pre-blended with ribonuclease inhibitor protein (RIP) and an optimized blend of random hexamer and oligo(dT) primers to ensure accurate representation of 5' and 3' sequences
- Stable through 20 freeze/thaw cycles



- 1 Tube
- 1 Pipetting Step
- 40 Minutes (70 min for qScript XLT Supermix)

1.1 **qScript cDNA SuperMix** (left) **includes all necessary components in a single tube – just add RNA and go!** Compare this to competitor options (right) that introduce numerous opportunities for error.

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qPCR

PerfeCta qPCR reagents combine a stringent, ultrapure antibody hotstart with performance engineered DNA polymerase in stabilized 1-tube formulations optimized for the specific performance needs of real-time quantitative PCR.

Tough-tested
Toughmix reagents deliver superior performance in the presence of PCR inhibitors

PerfeCta qPCR ToughMix®

Advanced single-component reagent technology ensures reliable and sensitive qPCR detection even in the presence of common PCR inhibitors.

PerfeCta MultiPlex qPCR ToughMix

Advanced 1-tube Supermixes supporting robust multiplexing while withstanding a broad spectrum of PCR inhibitors.

PerfeCta FastMix II

Convenient 1-tube reagent solution supports robust and reliable probe-based DNA detection with fast or standard thermal cycling conditions.

Inhibitor	Common sources	Reagent performance	
		Competitor	PerfeCta ToughMix
Polyphenols	Plant extracts	–	✓
Humic acids	Soil Plant tissues	–	✓
Hematin	Dried bloods Blood spots	–	✓
Hemoglobin	Blood	✓	✓
Polysaccharides	Feces Plant tissues	–	✓
Melanin	Hair Skin	–	✓

PerfeCta SYBR Green FastMix / SuperMix

Sensitive and precise DNA amplification using SYBR® Green detection chemistry.

ORDER INFO

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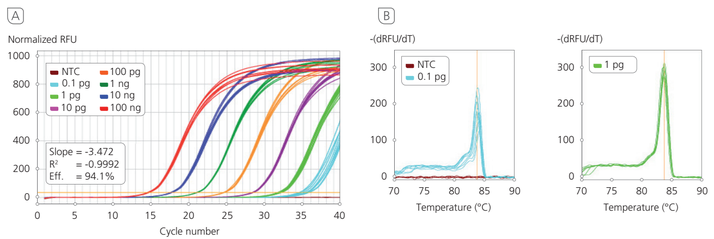
One-Step RT-qPCR and RT-PCR

1-step kits incorporate both the reverse transcription and PCR steps in a convenient single reaction tube.

	Conventional One-Step RT-PCR	Tough-Tested MultiPlex One-Step RT-qPCR	Tough-Tested One-Step Probe-based RT-qPCR	One-Step SYBR-based RT-qPCR
Kit	qScript XLT One-Step RT-PCR Kit	UltraPlex One-Step ToughMix	qScript XLT One-Step RT-qPCR ToughMix	qScript One-Step SYBR Green RT-qRT PCR
Detection Chemistry	N/A	Hydrolysis Probes	Hydrolysis Probes	SYBR Green I dye
Sensitivity	+++	++++	+++	++
Multiplex Compatibility	N/A	>4	<4	No
Reagent Components	2	1	1	2
RNA Input (Linear Range)	1 pg – 1 µg	–	–	–
Amplicon Length	4+ kb	<1 kb	<1 kb	<1 kb



3.1 **One-Step SYBR Green RT-qPCR with broad dynamic range, high sensitivity and high specificity. A** 202 bp fragment of glyceraldehyde-3-phosphate dehydrogenase (GAPD) mRNA was amplified from log-fold serial dilutions of HeLa cell total RNA (100 ng to 0.1 pg). Eight replicate reactions for each RNA quantity, and the no template control (NTC) were carried out in 25 µl volumes with the qScript One-Step SYBR Green RT-qPCR Kit and 200 nM each GAPD specific primers (PrimerBank ID 7669492a2, Wang, X. and Seed, **B** (2003) NAR 31(24): e154; pp.1-8). Reactions were assembled on ice, transferred to a MyiQ™ real-time detection system (Bio-Rad Laboratories), and incubated for 5 min at 50°C followed by 2 min at 95°C. PCR cycling was for 40 cycles of 3 s, 95°C; 30 s, 60°C. Immediately following PCR cycling the block temperature was ramped from 60°C to 95°C and melt curve data was collected. Panel A) Amplification plots and standard curve regression analysis. Panel B) Dissociation results (melt curve) for NTC, 0.1 pg and 1 pg reactions.

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