PROTEIGENE

bms
bio molecular systems

Mic qPCR

Ultimate Performance for Real-Time PCR

Fast. Accurate. Compact.

Speed   Accuracy   Size   Connectivity

Hardware

Style meets substance - ultimate performance, beautiful design.

Fast results without compromise

Mic uses a patented magnetic induction technology to heat samples and fan forced air for cooling. This means fast qPCR results in less than 25 min for 35 cycles*.

Back that up with a robust optical system that reads all channels simultaneously and running multichannel assays has never been quicker. The Mic qPCR cycler is available in either 2 or 4 channel models.

Each channel uses an independent high intensity LED, photodetector and filter set combining together to give unparalleled detection performance.

With a fixed optical path and no moving parts there is never any optical alignment or calibration required. Even better is that no reference dyes or crosstalk compensation is required.

*Assays designed toward cDNA targets with short amplicon sizes and using fast cycling compatible Taq polymerases

Speed

Mic	
Vendor A	
Vendor B	
Vendor Q	
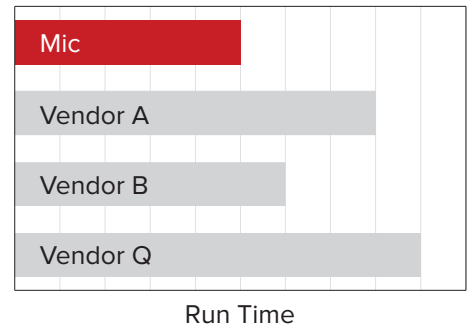
Run Time

## Multi-run, multi-instrument, anytime

Why wait to run 384 samples? Get your results now and have the confidence your datasets can be seamlessly combined using our Project analysis software at anytime.

Comparing samples between multiple runs or even multiple instruments is now effortless. Reproducibility across multiple runs on Mic is better than within a single 96 or 384 well run on many cyclers.

To achieve this level of precision, the Mic real-time cycler incorporates a unique spinning aluminium rotor which has unsurpassed temperature uniformity during both dynamic and static operations.

All other block-based real-time cyclers only promise static uniformity, which could lead to variability as samples aren't heated and cooled at the same rate.

You might think this level of accuracy requires constant calibration, but Mic's good to go right out of the box.

Accuracy
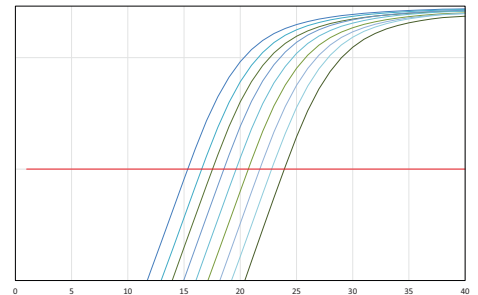
You don't need to calibrate – ever.

Modern personal design

Mic takes up less space on the bench than your lab book. And weighing in at just 2 kg, this is the most portable, compact, qPCR cycler on the market. Even four Mic's stacked together take up less bench space than your current cycler.

Only magnetic induction technology by way of its elegant simplicity makes it possible to achieve such a small footprint.

The custom tube format uses 0.1 mL strips of four tubes and matching caps, supporting volumes from 5μL to 30μL. Ultra thin walls designed for fast cycling times, pre-loaded with an oil overlay and in house manufacturing guarantees the maximum possible performance for your application.

All tubes come pre-racked for easy loading and correct orientation is ensured with a tab on the first tube.

Size

Wireless robust communications

Multiple Mic's can be operated from one workstation so 48 becomes 96, and 96 becomes 192. Bluetooth® technology means fewer cables too.

Instruments can communicate via Bluetooth® or USB cable and you can connect as many as ten instruments to one PC. This means up to 480 samples can be analysed simultaneously.

Never lose data through disconnections again. Every Mic has built in data storage to keep your data safe even if the PC is disconnected. Recovery is automatic as soon as the connection is restored.

Naturally you want to be up and running as quickly as possible so installation has been made plug-and-play. It's as simple as installing the software and starting your first run.

Connectivity

Software

Simplicity with power - complex algorithms applied at the touch of a button.

Prj Projects

Project based analysis lets you combine multiple runs into one analysis.

With Mic's unrivalled reproducibility you no longer need to worry about batching your experiments into one large 96 or 384 well run. Simply combine your runs into one analysis for any type of application.

By automating the analysis process we eliminate the need to export data to third party software. All of the statistics are included ready for publication.
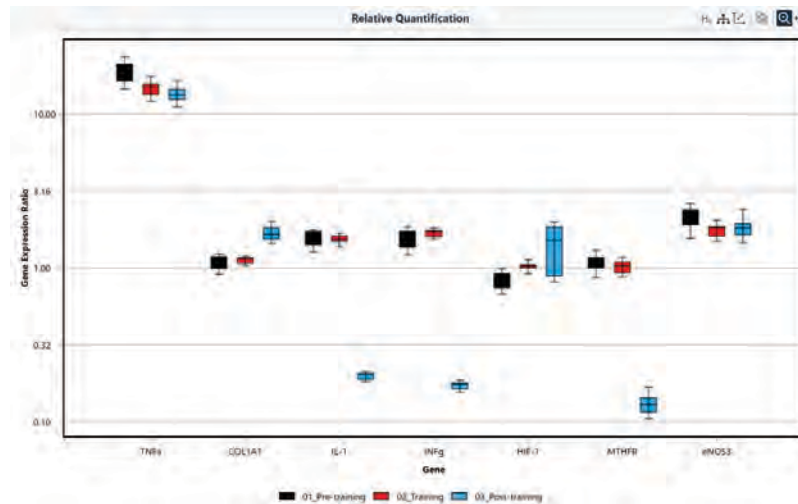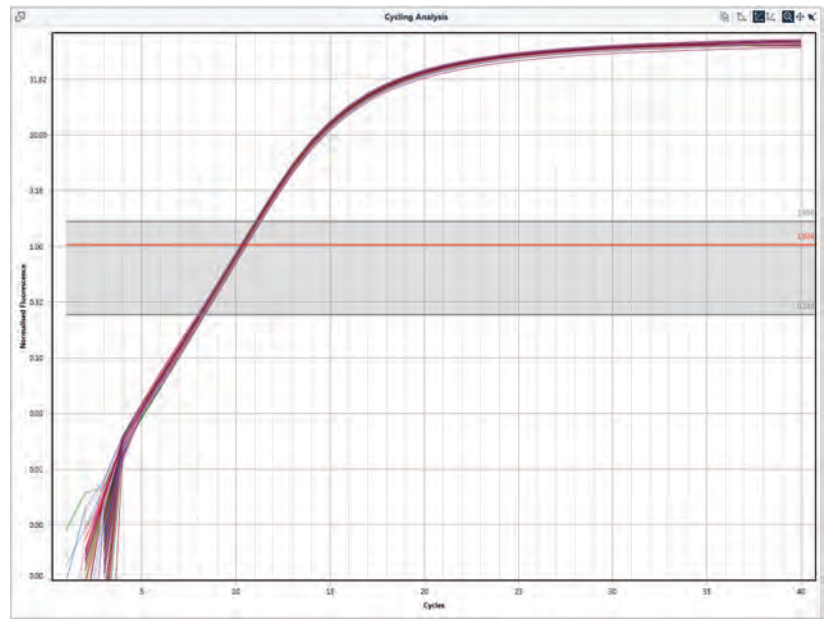

RQ Relative Quantification

Mic's RQ software uses up-to-date mathematical models and well-founded statistical analysis, allowing you to compare gene expression levels for different targets across multiple groups. All the necessary calculations and statistics are carried out within the software. Data is reported both numerically and graphically.

With Mic's superior temperature uniformity you can easily detect differences between samples as little as 0.2 fold.

AQ Absolute Quantification

Using a standard curve, AQ allows you to determine the absolute amount of a genetic target.

This five point, two fold dilution series produced an efficiency of 98%. The percentage variation between the given and calculated concentration was no greater than 5% allowing for accurate quantification of the unknown sample.
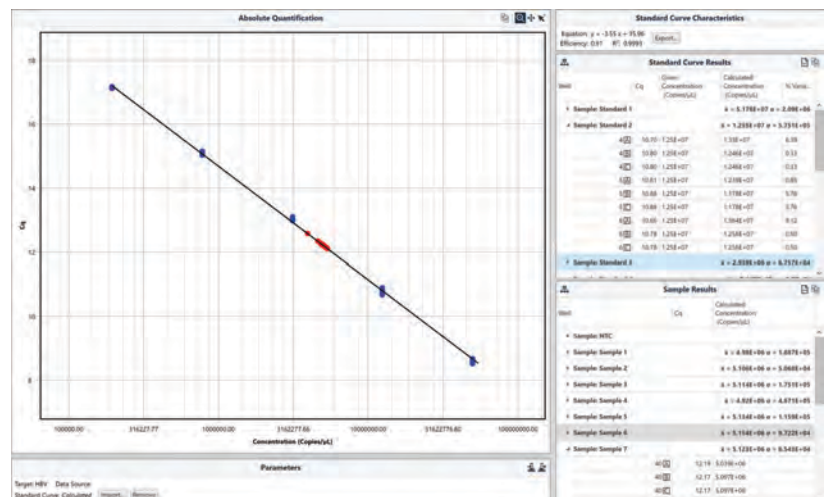
Gen Melt / Allelic Discrimination

Use differentiated melt curves from various types of chemistries, including quenched FRET dual hybridization probes, beacon probes or Plexor® to characterize a sample's genotype. Melt peaks can be inverted to accommodate the different chemistry types.

Alternatively, use hybridisation probes to determine genotypes through Allelic Discrimination.
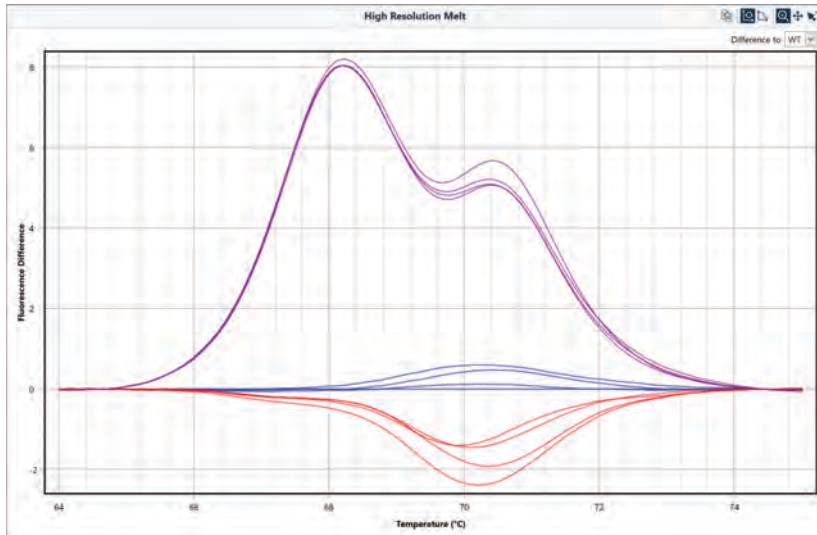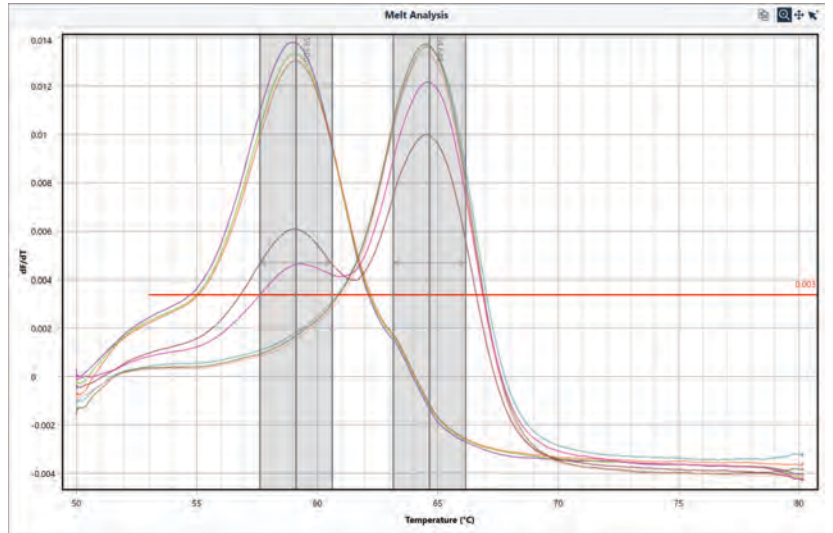
HRM High Resolution Melting

Mic's optional HRM software characterises DNA samples according to their melt behaviour so you can identify mutations, including difficult Class IV SNPs.

HRM is the perfect tool for applications including determining allele prevalence, screening for loss of heterozygosity, DNA fingerprinting, DNA methylation, species identification and calculating the ratio of somatic acquired mutations.

Specifications

Electrical	AC Input	100 - 240 VAC, 50/60 Hz

Thermal Performance	Temperature Accuracy	± 0.25°C
	Temperature Uniformity	± 0.01°C (SD)
	Ramp Rates	Heating: 5°C/s (sample) Cooling: 4°C/s (sample)

Optical	Detectors	Photodiode per channel
	Excitation Sources	High energy LED per channel
	Channels	Green: Ex. 465 nm; Em. 510 nm Yellow: Ex. 540 nm; Em. 570 nm Orange:Ex. 585 nm; Em. 618 nm Red: Ex. 635 nm; Em. 675 nm
	Acquisition Time	1 s

Reaction Vessels	Samples per Instrument	48
	Reaction Volume Range	5 - 30 μL

Operating Environment	Temperature	18 - 35°C
	Relative Humidity	20 - 80%

Designed and manufactured in Australia by

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