NIPPON Genetics EUROPE
INNOVATION FOR YOU

FastGene® qFYR

Real-Time PCR Systems

96- and 384-well formats • 4+1 or 6 optical channels

qFYR

qFYR PLUS

qFYR 384

qFYR 384 PLUS

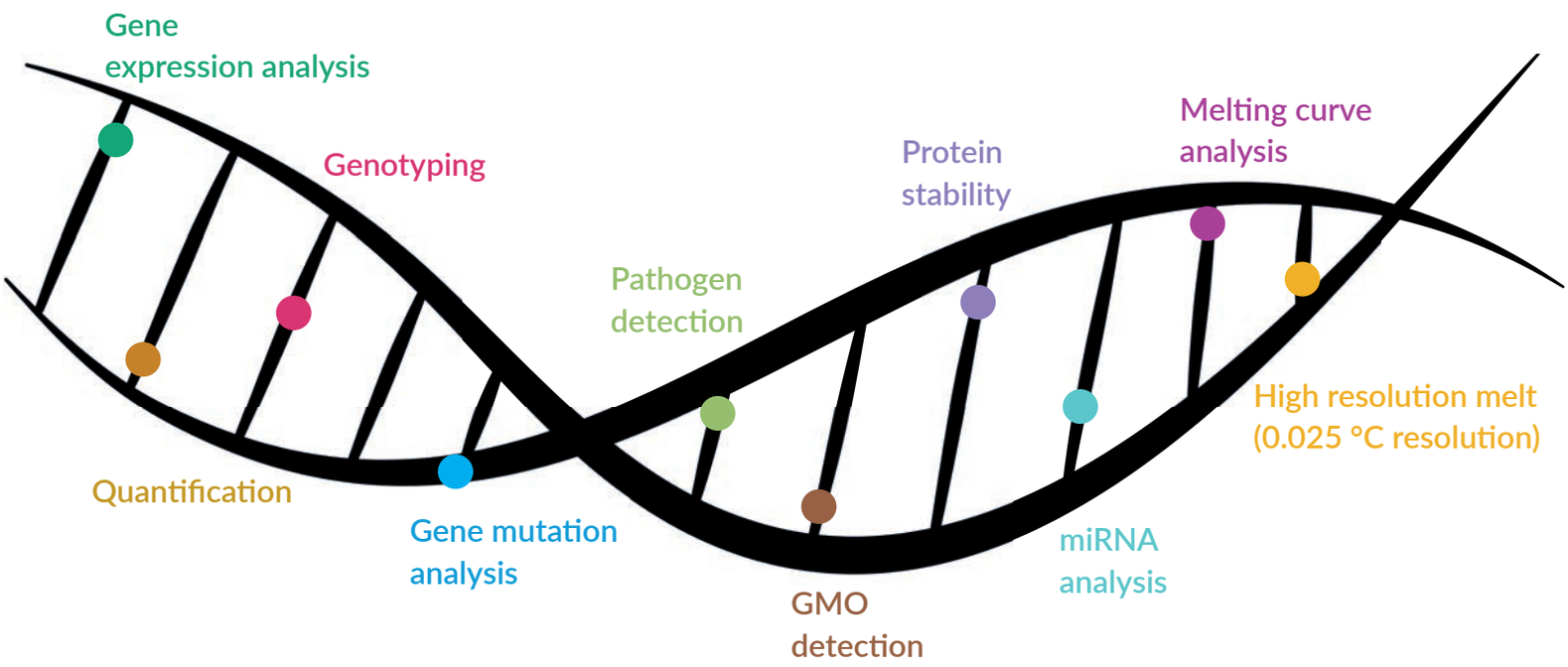
www.nippongenetics.eu

Results you can trust

With qFYR, your real-time PCR setup is safeguarded from the start

Setting up a qPCR experiment should be straightforward, but a simple plate setup error can cost time, samples, and valuable data. The FastGene® qFYR systems guide you through the process in under three minutes—so you can be confident that everything is set up correctly before you start. And with simultaneous detection of all fluorescence channels, you get immediate, reliable data without the risk of losing results due to mistakes. Precision should never be left to chance.

The FastGene® qFYR systems were developed to meet highest laboratory standards and deliver reliable performance for various real-time PCR applications:

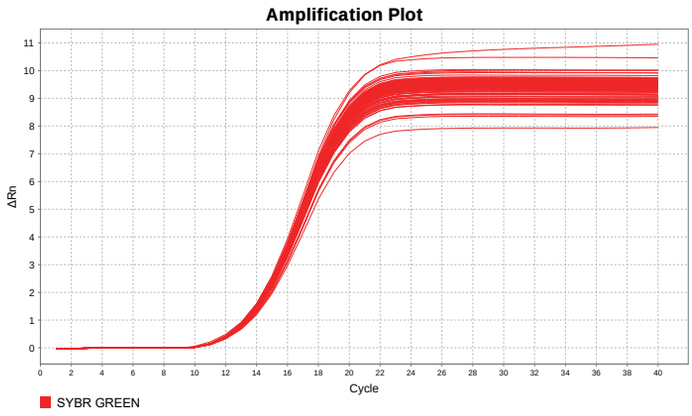


High-quality data, every time

FastGene® qFYR systems deliver reliable, precise qPCR results with advanced optics and a high-precision thermal block. Engineered for accuracy and reproducibility, it ensures optimal amplification conditions for every application.

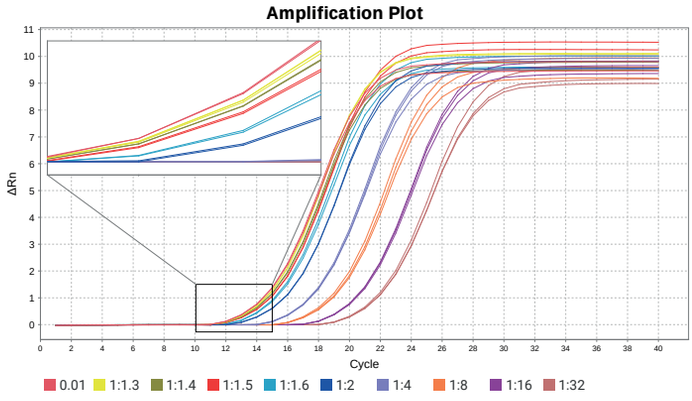
Unmatched consistency across the plate

Eliminate well-to-well variation for consistent, reproducible results, even with as little as 1 ng of plasmid DNA. With a mean Cq of 13.89 ± 0.055, you get consistent, reproducible data across all wells. No second-guessing required.



Detect even the smallest differences

FastGene® qFYR's high sensitivity enables detection of subtle changes, as small as a 1.3-fold difference in target concentration.
Using AMP-specific primers and a dilution series starting at 0.01 ng plasmid DNA, it reliably distinguishes even the slightest variations in expression.



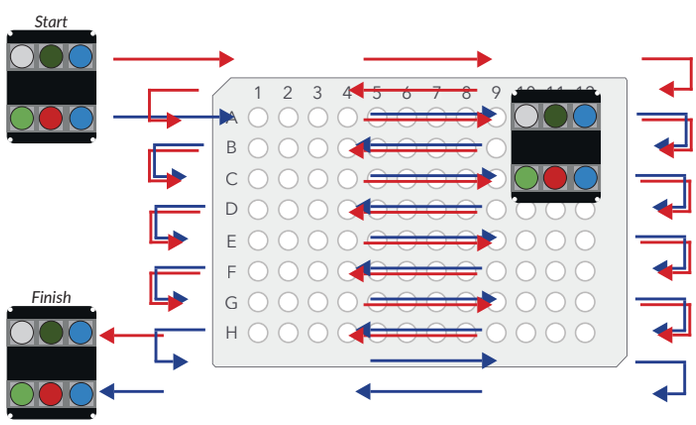
qFYR technology: precision in every scan

Superior thermal consistency

- The qFYR systems ensure ±0.2°C precision and uniformity across all 96 wells or 384 wells, eliminating edge effects and delivering reliable results every time.
- A lightweight, hollow-out thermal block enables ultra-fast ramp rates (up to 6°C/s), speeding up qPCR runs without sacrificing accuracy.
- Advanced Peltier technology guarantees stable, reproducible performance, boosting confidence and reducing repeat runs.

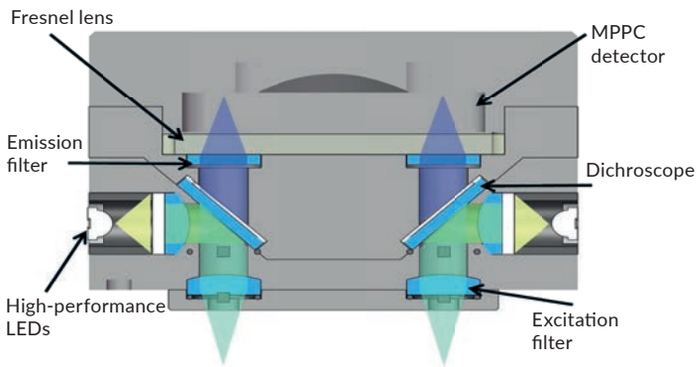
Time-resolved, well-by-well scanning: secure, complete data capture

- qFYR's multi-channel optics scan every well and capture each fluorescence channel individually, detecting all standard qPCR dyes reliably.
- All channels are recorded in a single scan cycle, elimiating the risk of missing signal and supporting secure, complete data capture.



High-sensitivity optical detection: clarity at every cycle

- qFYR combines a high-quality MPPC detector with a precision Fresnel lens to capture even the faintest signals.
- The short focal length eliminates signal loss and cross-talk, delivering sharp, accurate quantification, ideal for low-abundance targets.



Multi-color fluorescence detection: fast, efficient multiplexing

- A dual FAM/SYBR channel in the 4+1-channel systems accelerates HRM and melt curve analysis—cutting run time in half and boosting efficiency.
- With additional ATTO 425 and Cy5.5 channels, the 6-channel PLUS systems expand dye compatibility and enable higher-level multiplexing.

qFYR
qFYR 384 — **4+1 Channel System**

EMPTY	FAM /SYBR	ROX / TEXAS RED
FAM /SYBR	VIC / HEX / TET / JOE	CY5 / QUASAR 670

qFYR PLUS
qFYR 384 PLUS — **6 Channel System**

ATTO 425	VIC / HEX / TET / JOE	CY5 / QUASAR 670
FAM /SYBR	ROX / TEXAS RED	Cy5.5/Quasar 705/Alexa Fluor 680

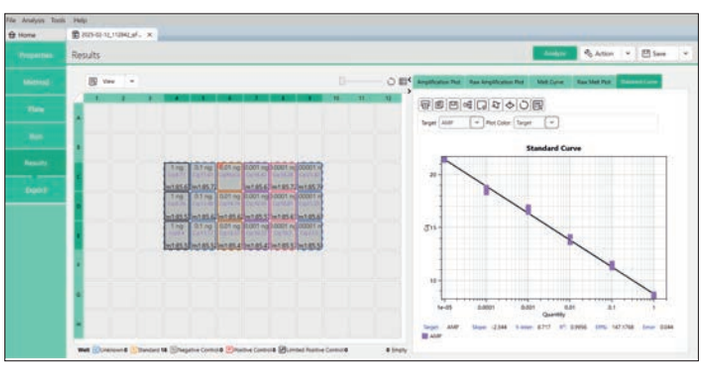
Welcome to FastGene® qFYR

qFYR Analysis Studio Software

Simple & fast setup	Automated & reliable analysis	Flexible & scalable

Let the software do the work

Designed with researchers in mind, qFYR Analysis Studio Software streamlines your qPCR workflow, from experiment setup to data analysis, ensuring an easy and faster setup.

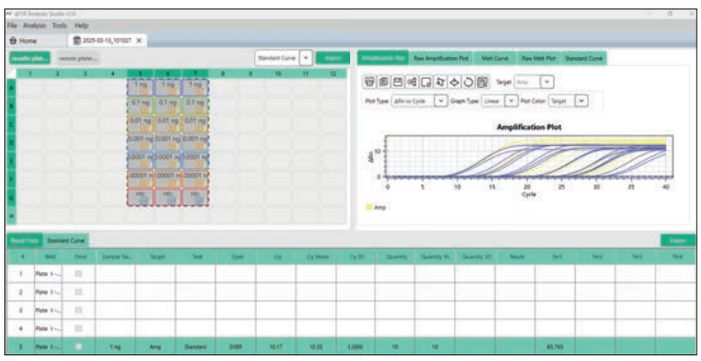


Increase your throughput

- Run multiple FastGene® qFYR systems from a single PC.
- Perform independent qPCR experiments simultaneously.
- Import plate layouts

Multi plate analysis

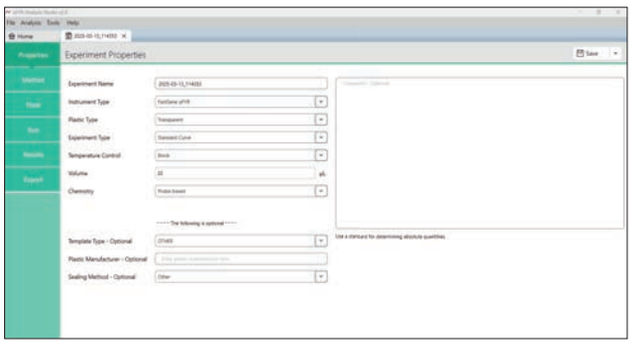
- Combine data analysis from multiple runs.
- Compare experiments directly in a single, unified dataset.



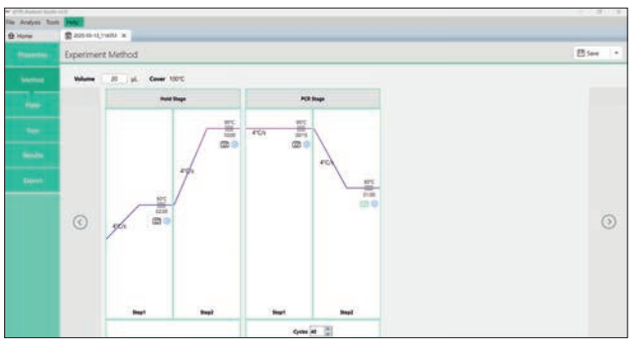
No missed steps, no guesswork: follow an intuitive experiment workflow

With a clear 6-step guide and easy navigation, the qFYR Analysis Studio Software ensures every step is completed correctly.

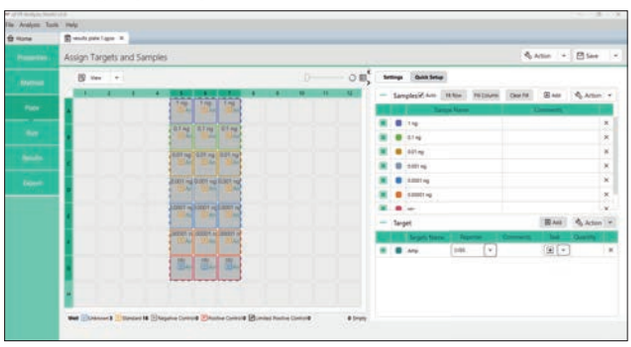
1. Define your experiment



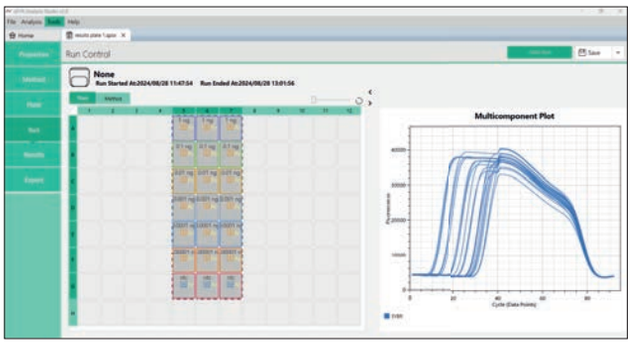
2. Personalize the protocol



3. Design your plate

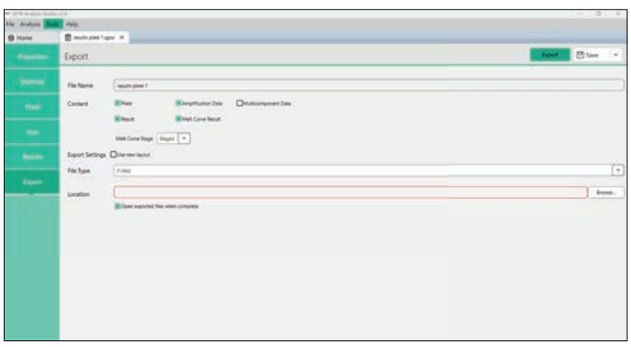


4. Start and monitor the run



5. Analyze your results

6. Export and keep your data safe



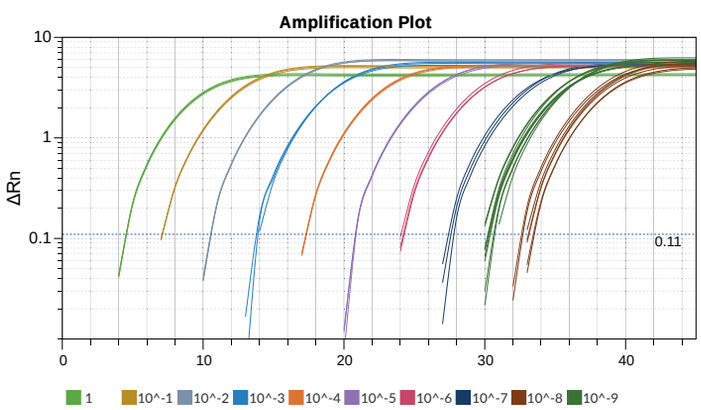
Intuitive data visualization

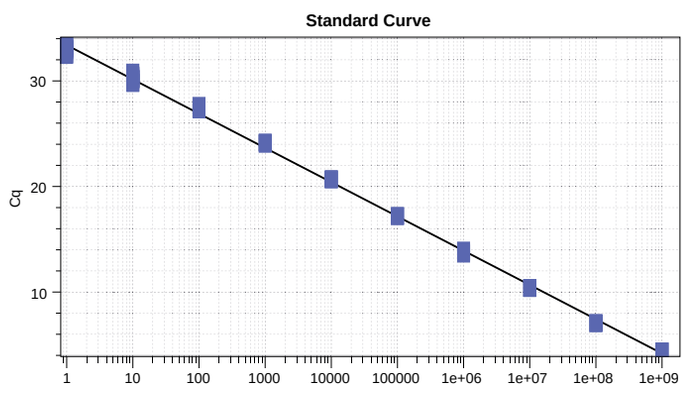
FastGene® qFYR Analysis Studio: ready results after every run

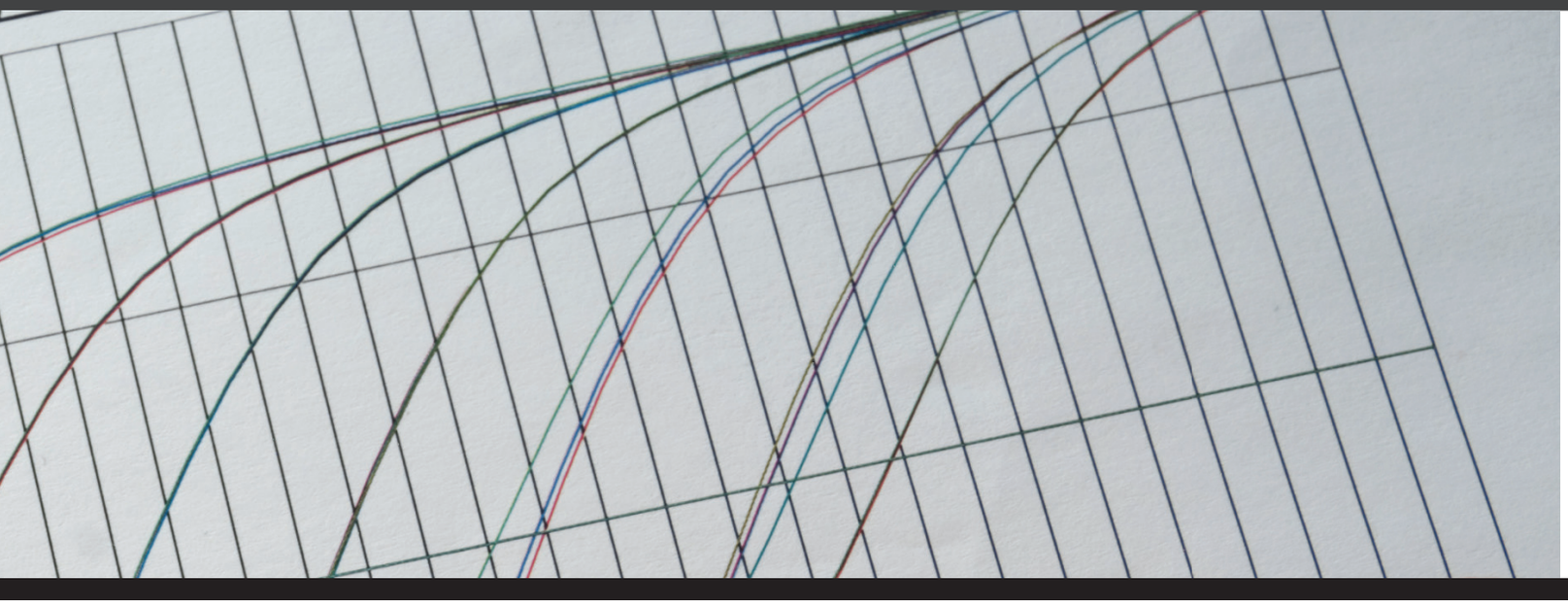
- Automatic data interpretation – instantly analyze qPCR, HRM, genotyping, and multiplex assays with intelligent, experiment-specific tools.
- Clear, customizable visuals – interpret results quickly with intuitive charts and export publication-ready images, including vector formats.
- All-in-one analysis — standard curves, relative quantification, multiplex evaluation, genotyping, HRM, SNP analysis, and more in one platform, with no additional software required

Broad dynamic range with high precision

FastGene® qFYR systems deliver precise, reliable quantification across a wide range of template concentrations.
Thanks to the system's high sensitivity and precision, standard curves can span up to 10 logarithmic steps (10 orders of magnitude), supporting consistent quantification from very low to high inputs.

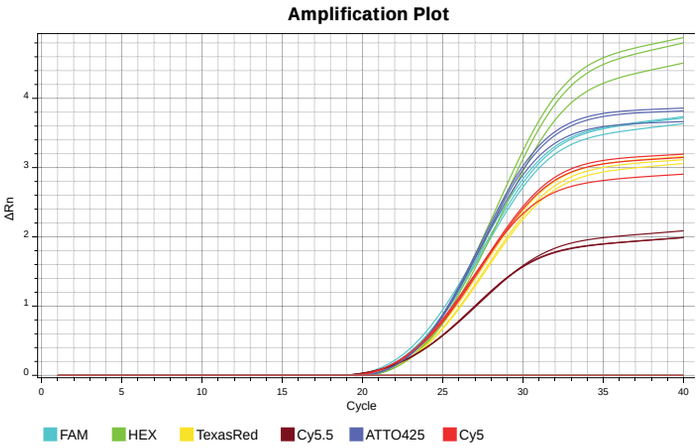


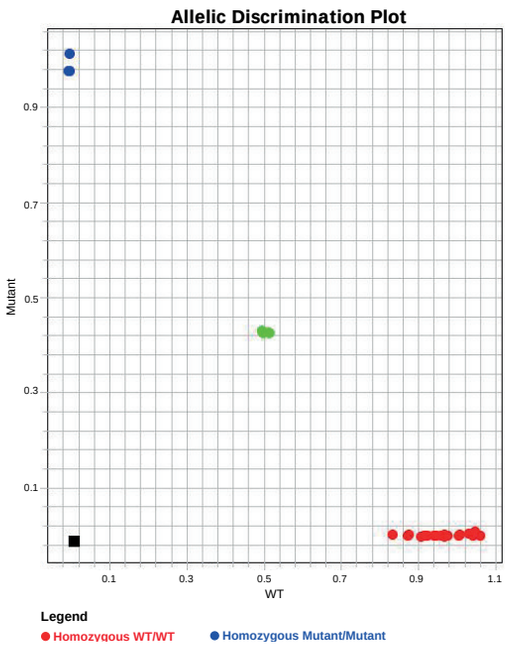




Powerful multiplexing: maximize efficiency

With FastGene® qFYR and qFYR 384, you can detect up to 4 targets per well; qFYR Plus and qFYR 384 Plus increases that capacity to 6, helping you save time, conserve reagents, and reduce sample usage without sacrificing precision.



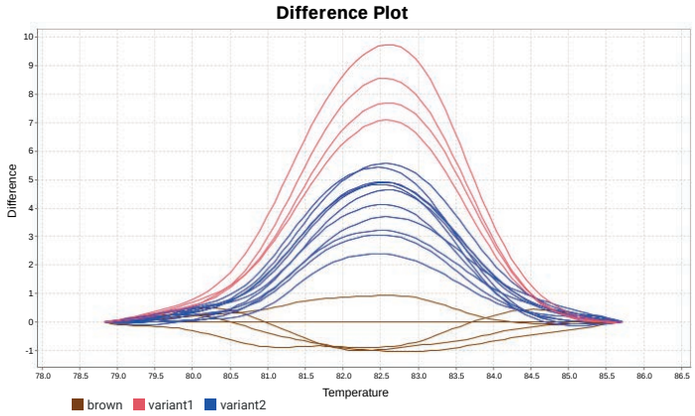


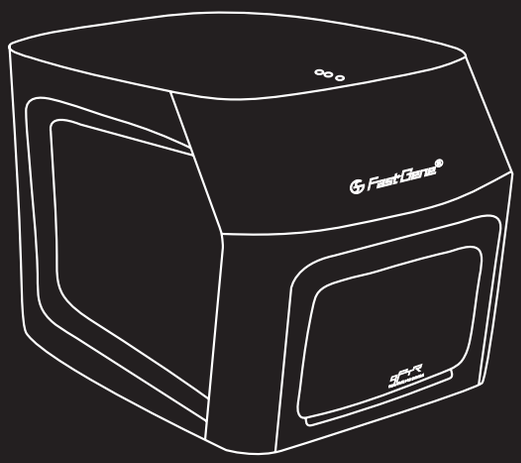
Effortless genotyping with automatic calling

With clear cluster plots and automatic genotype calling, FastGene® qFYR makes it easy to distinguish allelic populations, no manual interpretation needed.

Integrated HRM: simplified SNP analysis

The software includes high-resolution melt curve analysis for accurate SNP detection—easily distinguishing variants like brown vs. blue eye alleles from blood samples.



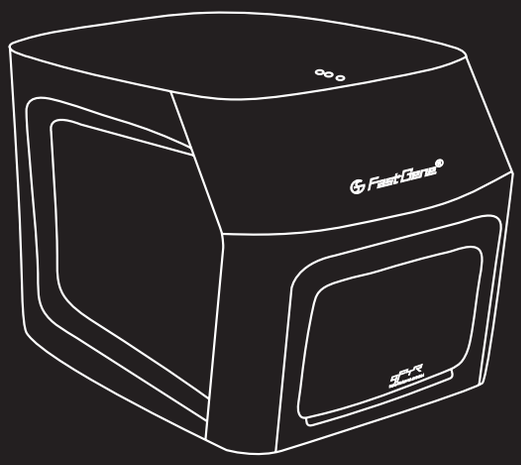


qFYR

qFYR PLUS

qFYR technical specifications

	qFYR	qFYR PLUS
	Optical detection system	
Channels	4 LED channels + dual FAM	6 LED channels
Scan method	Time-resolved scan (Optics shuttle)	Time-resolved scan (Optics shuttle)
Detector	MPPC (Multi-Pixel Photon Counter)	MPPC (Multi-Pixel Photon Counter)
Excitation range	455-650 nm	415–685 nm
Emission range	510-715 nm	455–745 nm
Dye compatibility	FAM/SYBR Green (2x) VIC/JOE/HEX/TET ROX/Texas Red Cy5	ATTO 425 FAM/SYBR Green VIC/JOE/HEX/TET ROX/Texas Red Cy5 Cy5.5/Quasar 705/Alexa Fluor 680
Full plate scan	8.5 s for 96 well plate (4 s for Melt Curve)	8.5 s for 96 well plate
Resolution	1.33-fold concentration difference	1.33-fold concentration difference
Sensitivity	1 copy	1 copy
Dynamic range	10 orders of magnitude	10 orders of magnitude
	Thermal block	
Block capacity	96 wells	96 wells
Temperature Range	4–100 °C	4–100 °C
Max ramp rate	6.0 °C/s	6.0 °C/s
Avg. sample ramp	4.0 °C/s	4.0 °C/s
Temperature accuracy	±0.2 °C	±0.2 °C
Temperature uniformity	±0.2 °C	±0.2 °C
Gradient	12 columns (1–40 °C)	12 columns (1–40 °C)



qPYR 384

qPYR 384 PLUS

	qPYR 384	qPYR 384 PLUS
	Optical detection system	
Channels	4 LED channels + dual FAM	6 LED channels
Scan method	Time-resolved scan (Optics shuttle)	Time-resolved scan (Optics shuttle)
Detector	MPPC (Multi-Pixel Photon Counter)	MPPC (Multi-Pixel Photon Counter)
Excitation range	455-650 nm	415–685 nm
Emission range	510-715 nm	455–745 nm
Dye compatibility	FAM/SYBR Green (2x) VIC/JOE/HEX/TET ROX/Texas Red Cy5	ATTO 425 FAM/SYBR Green VIC/JOE/HEX/TET ROX/Texas Red Cy5 Cy5.5/Quasar 705/Alexa Fluor 680
Full plate scan	17 s for 384-well plate (8.5 s for Melt Curve)	17 s for 384-well plate
Resolution	1.33-fold concentration difference	1.33-fold concentration difference
Sensitivity	1 copy	1 copy
Dynamic range	10 orders of magnitude	10 orders of magnitude
	Thermal block	
Block capacity	384 wells	384 wells
Temperature Range	4–100 °C	4–100 °C
Max ramp rate	6 °C/s	6 °C/s
Avg. sample ramp	3 °C/s	3 °C/s
Temperature accuracy	±0.2 °C	±0.2 °C
Temperature uniformity	±0.2 °C	±0.2 °C

FastGene® qPCR workflow

Complete solutions from start to finish

From RNA/DNA isolation kits and reverse transcription enzymes to qPCR reagents and plastics, we provide everything you need for a seamless qPCR workflow. All components are designed for reliable performance and smooth compatibility across every step. You can go from sample to result with confidence and efficiency.

RNA Isolation Kits

FastGene® RNA Basic Kit

FastGene® RNA Premium Kit

Reverse Transcription

FastGene® Scriptase (Basic, II, III)

FastGene® Scriptase Ready Mixes

DNA Isolation Kits

FastGene® Plasmid Mini Kit

FastGene® Gel/PCR Extraction Kit

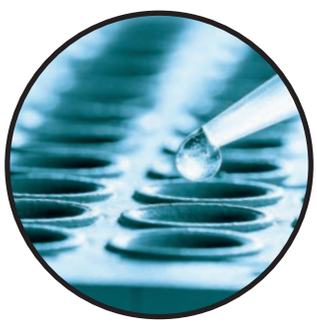
FastGene® Blood & Tissue gDNA Kit

qPCR Reaction Mixes

FastGene® Probe One Step Mix with UDG

FastGene® 2x IC Green Mixes

FastGene® 2x Probe Mixes



qPCR Plastics

FastGene® PCR 8-well strips

FastGene® PCR plates (96-well, 384-well)

FastGene® Adhesive PCR Foil

Ordering information

qFYR Systems

Cat. No.	Product	Content
FG-QPTC01	FastGene® qFYR	96-well Real-Time PCR System (4 + 1 channels)
FG-QPTC02	FastGene® qFYR Plus	96-well Real-Time PCR System (6 channels)
FG-QPTC03	FastGene® qFYR 384	384-well Real-Time PCR System (4 + 1 channels)
FG-QPTC04	FastGene® qFYR 384 Plus	384-well Real-Time PCR System (6 channels)

RNA Isolation Kits

Cat. No.	Product	Content
FG-80006	FastGene® RNA Basic Kit	6 preps
FG-80050		50 preps
FG-80250		250 preps
FG-81006	FastGene® RNA Premium Kit	6 preps
FG-81050		50 preps
FG-81250		250 preps

Reverse Transcription

Cat. No.	Product	Content
LS52	FastGene® Scriptase Basic (20,000 units at 200 U/µl)	100 reactions
LS62	FastGene® Scriptase Basic cDNA Synthesis Kit	100 reactions
LS53	FastGene® Scriptase II (20.000 units at 200 U/µl)	100 reactions
LS63	FastGene® Scriptase II cDNA Synthesis Kit	100 reactions
LS64	FastGene® Scriptase II cDNA Synthesis 5x ReadyMix	100 reactions
LS65	FastGene® Scriptase II cDNA Synthesis 5x ReadyMix OdT	100 reactions
LS55	FastGene® Scriptase III (20.000 units at 200 U/µl)	100 reactions
LS66	FastGene® Scriptase III cDNA Synthesis Kit	100 reactions
LS67	FastGene® Scriptase III cDNA Synthesis 5x ReadyMix	100 reactions

DNA Isolation Kits

Cat. No.	Product	Content
FG-90402	FastGene® Plasmid Mini Kit	100 preps + 10 LB-Broth capsules
FG-90502		300 preps + 10 LB-Broth capsules
FG-91202	FastGene® Gel/PCR Extraction Kit	100 preps + 50 µl MIDORI^{Green} Advance + 5 Gel Band Cutter
FG-91302		300 preps + 50 µl MIDORI^{Green} Advance + 5 Gel Band Cutter
FG-70050	FastGene® Blood & Tissue gDNA Extraction Kit	50 preps
FG-70250		250 preps

qPCR Reaction Mixes

Cat. No.	Product	Content
LS4801	4x FastGene® One Step Probe with UDG	100 reactions
LS4805		500 reactions
LS4001	FastGene® 2x IC Green Universal (ROX™)	100 reactions
LS4005		500 reactions
LS4050		5000 reactions
LS4101	FastGene® 2x IC Green Universal (Fluorescein)	100 reactions
LS4105		500 reactions
LS4150		5000 reactions
LS4501	FastGene® 2x Probe Universal (ROX™)	100 reactions
LS4505		500 reactions
LS4550		5000 reactions

qPCR Plastics

Cat. No.	Product	Content
FG-019FC	FastGene® White 8-well PCR Tube Strips 0.1 mL with Flat Cap Strips	125 pcs.
FG-210250	FastGene® White 96-well PCR Plate 0.1 mL, semi-skirted	50 plates
FG-310050	FastGene® White 384-well PCR Plate 40 µl, full-skirted	50 plates
FG-93AC2	FastGene® Adhesive PCR Foil	100 sheets

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