NIPPON Genetics EUROPE
INNOVATION FOR YOU

FastGene®

FastGene® Gradient PCR Cycler

96-WELL ENDPOINT PCR CYCLER WITH GRADIENT FUNCTION

FG-TC03

EXCELLENT 96-WELL PERFORMANCE

42°C GRADIENT SPAN

INTUITIVE SOFTWARE INTERFACE

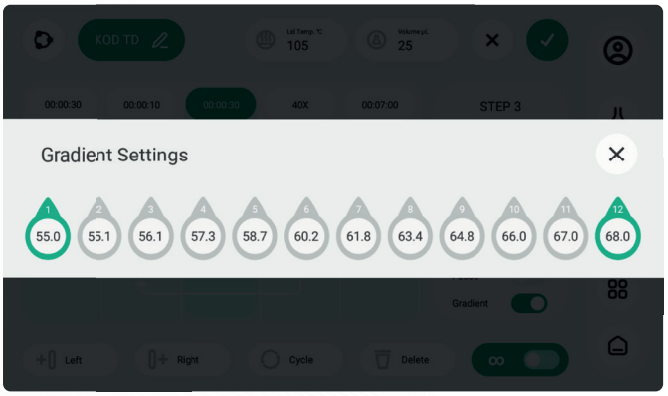
www.nippongenetics.eu

Flexible performance for everyday PCR workflows

The FastGene® Gradient PCR Cycler is a compact 96-well endpoint PCR system for routine amplification, assay development, and PCR optimization. Its flexible reaction volume range and compatibility with standard PCR tubes, strips, and plates make it easy to integrate into established laboratory workflows.

Instrument design	Benchtop system
Block capacity	96 wells
Sample volume range	5–100 µL
Consumable compatibility	0.2 mL PCR tubes, PCR strips, and PCR plates
Compatible plate formats	Non-skirted and semi-skirted 96-well plates
Dimensions	427 × 288 × 227 mm (L × W × H)
Weight	9.7 kg

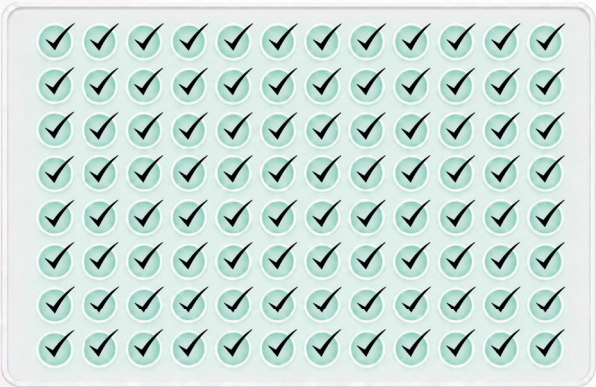
Optimize PCR conditions efficiently



Primer annealing temperature strongly influences PCR specificity and product yield. The integrated gradient function allows multiple temperatures to be tested simultaneously across the 96-well block, helping identify suitable reaction conditions in a single run. With a gradient span of up to 42°C, new assays can be optimized faster while reducing repeated experiments and reagent use.

Gradient setting range	30–99°C
Maximum gradient span	42°C across the block

Reliable conditions in every well

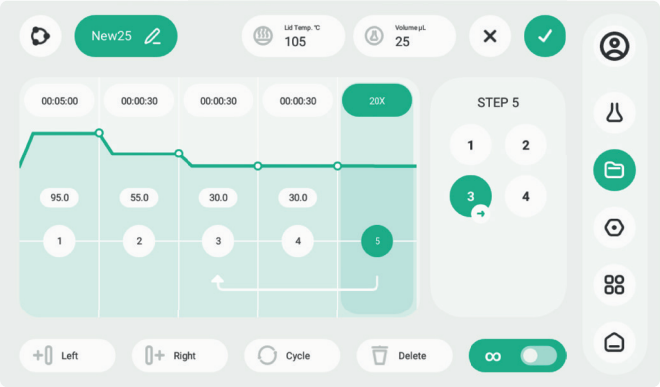


High temperature accuracy, precision, and block uniformity support reproducible PCR conditions across all 96 wells. This helps minimize variation between edge and center positions and contributes to consistent amplification results throughout the plate.

Temperature accuracy	±0.1°C
Temperature precision	±0.1°C
Temperature uniformity	±0.3°C at 55°C*
Temperature setting range	0–105°C

*Temperature uniformity was measured at 55°C according to the internal validation procedure.

Straightforward setup

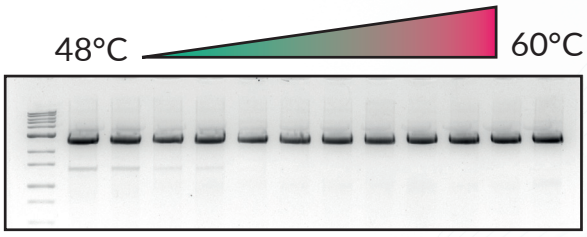


The intuitive software and clear graphical interface make PCR programs quick and easy to create, edit, and start directly on the 7-inch, glove-compatible touchscreen. Up to 5,000 programs can be stored, while multi-user management and USB transfer support efficient use in shared laboratories.

Display	7-inch touchscreen
Program storage capacity	Up to 5,000 programs
User management	Up to 50 users
Data import and export	USB supported
Touchdown function	Yes

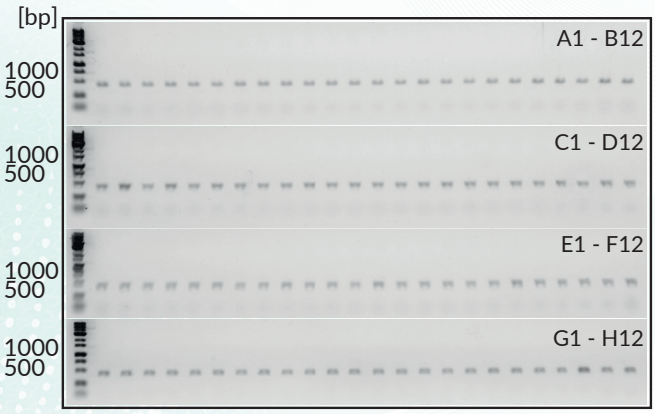
High performance across key PCR applications

From assay optimization to routine and multiplex PCR, the FG-TC03 supports reliable amplification across different experimental requirements. The agarose gel results demonstrate efficient annealing temperature optimization, consistent performance across all 96 wells, and simultaneous amplification of multiple target fragments.



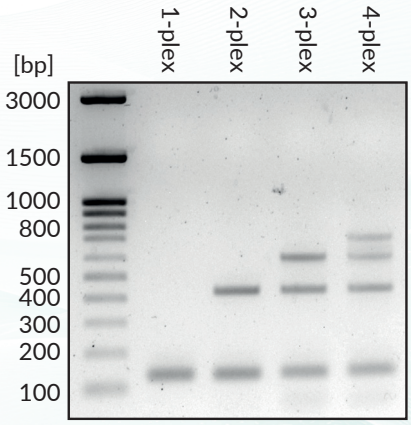
Gradient optimization

A 12-column temperature gradient enables the optimal primer annealing temperature to be identified in a single PCR run.



Homogeneity

Consistent amplification across all 96 wells demonstrates reliable thermal uniformity throughout the block.



Multiplex PCR

Multiple target fragments can be amplified simultaneously in a single reaction.

Ordering information

Gradient PCR Cycler

Cat. No.	Product	Content
FG-TC03	FastGene® Gradient PCR Cycler	96-well endpoint PCR cycler with gradient function

Compatible PCR plastics

The FG-TC03 is compatible with standard 0.2 mL PCR tubes and strips, as well as non-skirted and semi-skirted 96-well PCR plates with 0.2 mL wells. Compatible FastGene® PCR plastics are listed below.

Cat. No.	Product	Content
PCR Tubes		
FG-021D	FastGene® PCR Tubes 0.2 mL with domed caps	1,000 tubes
FG-021F	FastGene® PCR Tubes 0.2 mL with flat caps	1,000 tubes
8-well PCR Tube Strips and Caps		
FG-016FC	FastGene® 8-well PCR Tube Strips 0.2 mL with flat cap strips	120 strips
FG-028	FastGene® 8-well PCR Tube Strips 0.2 mL without caps	120 strips
FG-008FC	FastGene® Flat Cap Strips for 0.2 mL tube strips	120 strips
FG-088WFDE	FastGene® 8-well PCR Tube Strips 0.2 mL with single flat caps	120 strips
96-well PCR Plates		
FG-170225	FastGene® 96-well PCR Plate 0.2 mL, non-skirted	25 plates
FG-190250	FastGene® 96-well PCR Plate 0.2 mL, semi-skirted	50 plates
FG-200250	FastGene® 96-well PCR ABI Plate 0.2 mL, semi-skirted	50 plates
FG-HD0296	FastGene® 2-Component PCR Plate 0.2 mL, semi-skirted	50 plates

Discover the FG-TC03

Ready to optimize your PCR workflow? Scan for full specifications and product details.

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