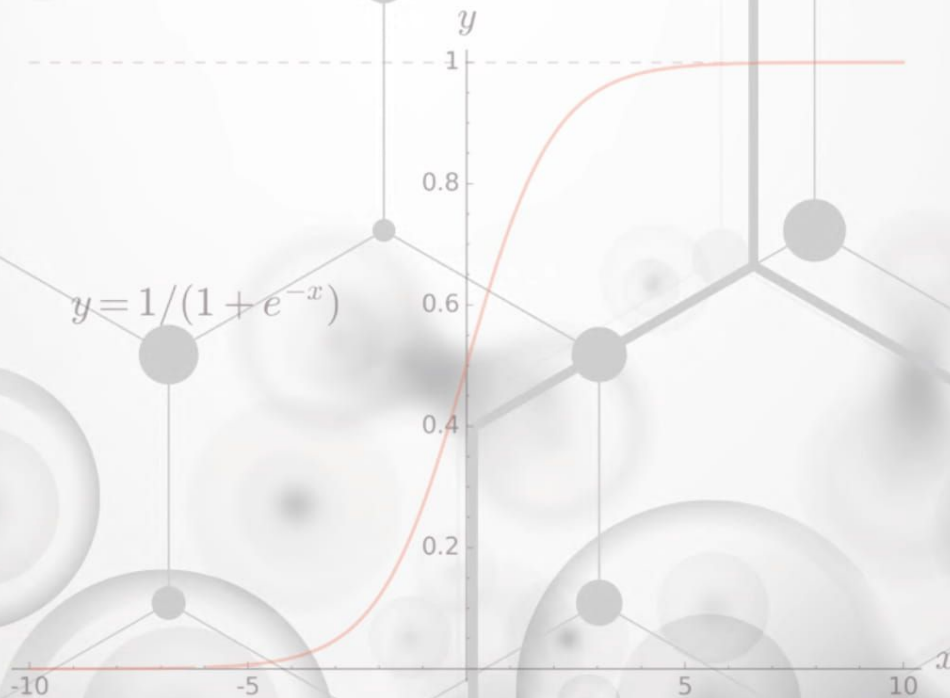




Europe

All about PCR and Real Time PCR



[www.longgene.com.tr](http://www.longgene.com.tr)

# REAL TIME PCR INSTRUMENTS

## LongGene | Q1000 Series

### Purpose

The device is used for Real Time PCR (Polymerase Chain Reaction) applications for DNA and RNA (cDNA) amplifications.

### Scope of Application

Genetic Disease Detection  
 Virus or Pathogen detection  
 Drug Resistance Analysis  
 DNA Methylation Study  
 SNP (Single Nucleotide Polymorphism)  
 Gene Expression Studies  
 Multiplex Analysis  
 IVD Applications  
 (Covid19, Variant Genotyping, Hepatitis, Respiratory infections etc.)

### Technical Basic Specifications

#### 7" Color Touch Screen

#### Real-time monitoring of PCR Running

**Light Sources (each channel):** LED

**Sensor (each channel):** New generation SSLP CCD

**Technology:** T-Optical™

**Detection Sensitivity:**  $\geq 1$  copy

**Dynamic Range:**  $1-10^{10}$  (%99.7 reliability)

**Block Type :** Gradient Peltier

**Capacity:** 48x0.1 ml (singular /8 strips and 48 well)

**Sample Volume:** 10-50  $\mu$ l

**Block Temperature Range:** 0-105 °C

**Temperature Sensitivity:**  $\pm 0.2$  °C (at 90 °C)

**Temperature Accuracy :**  $\pm 0.2$  °C (at 90 °C)

**Active Temperature Tracking Resolution:** 0.1 °C

**Heating Rate:** 7 °C /second

**Cooling Rate:** 5 °C /second

**Gradient Range:** 30-100 °C

**Gradient Capacity:** 1-24 °C (8 column)

**Heat Lid Temperature Range:** 30-112 °C

**Fluorescence Excitation Range:** 300-800 nm

**Fluorescence Detection Range:** 500-800 nm

**Connection:** USB, LAN

**Channel-1:** FAM, SYBR GREEN (1/2)

**Channel-2:** VIC, HEX, JOE, CY3, NED

**Channel-3:** ROX, TEXAS-RED

**Channel-4:** CY5

ISO, IVD-CE, PCR PERFORMANCE WARRANTY, POC

### New Generation fast qRT-PCR Device

**New generation SSLP CCDs and T-Optical™ top detection technology reduces background noise.**

**It has 7 °C heating and 5 °C cooling performance with new generation peltier elements with 1 million cycle life. Protocols can be started both on the device and from USB licensed Optimal™ computer control and analysis software. Analyzes can be done on different computers.**



### Open System

Suitable for using with different brands of consumables and kits. The device can also be used as a conventional PCR device. (Thermal Cycler). Sybr green dyes and 2/4 Multiplex reading into a single tube with taqman probes. Has an internal 15.000 protocol capacity.



Absolute Quantification, Melting Curve, Relative Quantitation ( $\Delta$ Ct,  $\Delta\Delta$ Ct), SNP Genotyping, Pathogen Positive/Negative, etc..

Compatible with IVD products of all brands.

Q1000 Model: 2 Channels (supports 7 universal dyes)

Q1000+ (Plus): 4 Channels (supports 10 universal dyes)

Auto/Manual Normalization  
 Auto/Manual Threshold  
 Auto/Manual Baseline  
 -----  
 Auto Gain Function  
 (Calculated automatically)



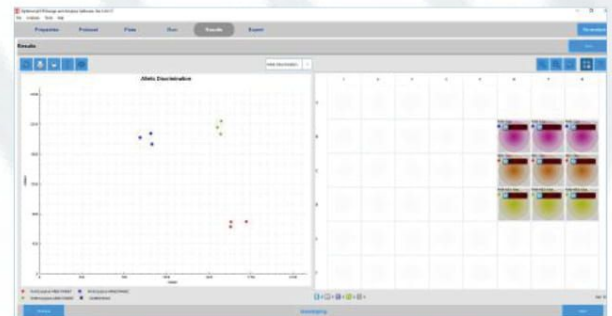
**Absolute Quantification**

Software automatically draws the 'standard line' according to the standards you know the amount (number of copies) and gives the number of copies according to the Ct (threshold) values of your samples.

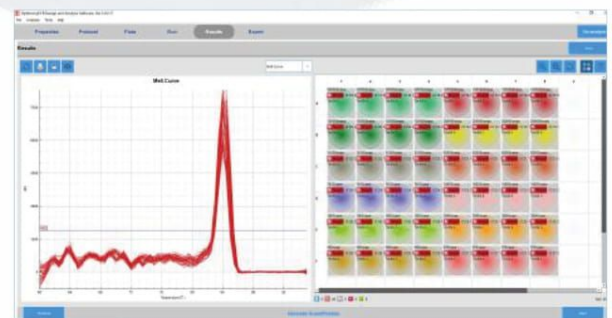
Plate view and curves on one screen.

**Other important features of the software:**

- Quality Control (QC) function
- Creating ready to use protocols
- Functional reporting
- Compatible with Windows XP/7/10 (32Bit/64Bit)

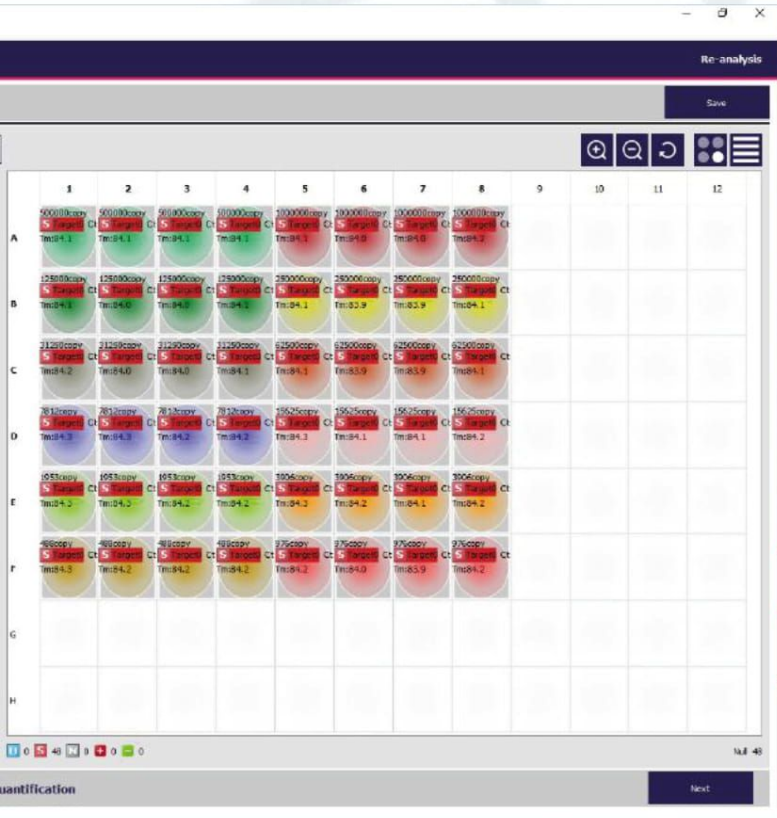


**SNP (Single Nucleotide Polymorphism) Genotyping analysis**



**High resolution graphs and fluorescence for Melting Curve**

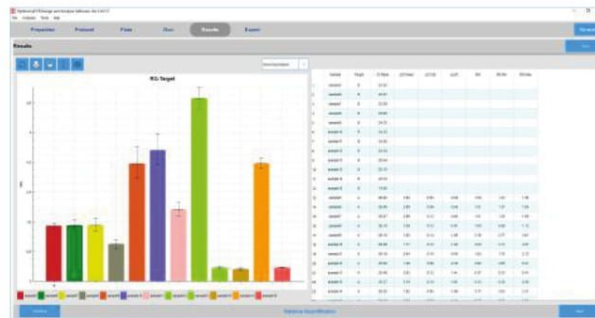




- Auto Efficiency Calculation
- Plate or List View
- Functional Report Options
- .....
- Copy/Past Your Sample Names (Horizontal or Vertical) from an Excel file, easily



**PLUS/MINUS**  
Fast pathogen detection and analysis



**Relative Quantification**  
It creates a statistical report of different gene regions according to the obtained Ct values; Automatically calculates and reports  $\Delta Ct$  Mean,  $\Delta Ct$  SE,  $\Delta \Delta Ct$ , RQ, RQ Min and RQ Max.

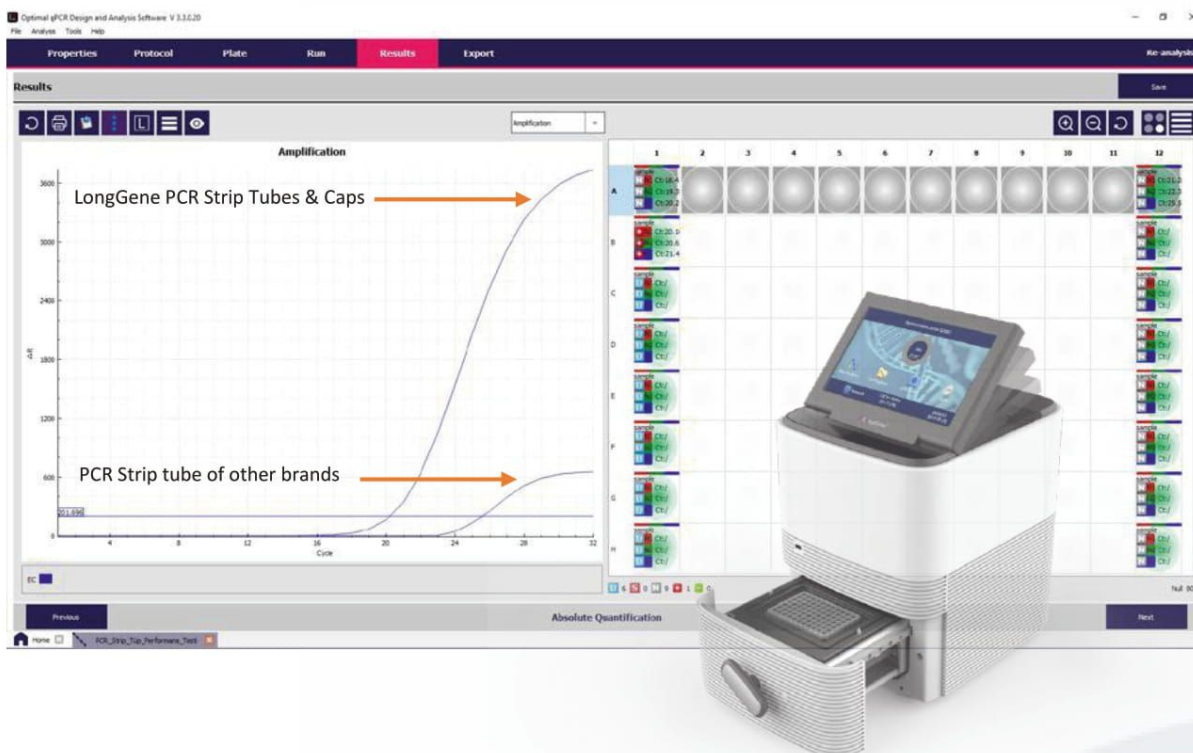
**The reporting features of the software:**

- Txt, doc, xls and pdf export
- Automatic result according to definitions
- Post-study re-analysis
- Free lifetime update
- Compatible with Windows XP/7/10 (32Bit/64Bit)



Taqman probes and Syber dyes  
Multiplex analysis in a single tube





<b>PCR Strip Tube with Cap</b>	<b>96 Well RT-PCR Plate</b>	<b>Sealing for Plate</b>
<b>LGT001-E</b>	<b>LGP001-E</b>	<b>LGS001-E</b>
<ul style="list-style-type: none"> <li>• Thin and highly uniform</li> <li>• Durable at low and high temperatures</li> <li>• High heat transfer efficiency</li> <li>• Maximum heating temperature: 150 °C</li> <li>• The lowest storage temperature: -86 °C</li> <li>• Medical Polypropylene</li> <li>• Purity is 99.9 %</li> <li>• Numbered wells (96 Well: A to H, 1 to 12)</li> <li>• Compatible with similar RT-PCR instruments</li> </ul>		<ul style="list-style-type: none"> <li>• Maximum heating temperature: 150 °C</li> <li>• Polyethylene, ultra thin</li> <li>• Durable and optically clear</li> <li>• Good sealing performance</li> <li>• Easy to peel off</li> <li>• Low residue</li> <li>• Free from DNase, RNase</li> <li>• Non Pyrogenic</li> </ul>

**Real Time PCR Lab Equipments:**

- Real Time PCR
- Biosafety Cabinet (Class II A2 or B2)
- Digital/Electronic Pipettes (with stand)
- Benchtop Cooler (to prepare the mixes at +4 °C)
- Mini Spin (8-strips) or Plate Centrifuge (to use with 8-strip tubes)
- Plate Centrifuge (to use with 96 well RT-PCR plates) Vortex

**Disposables;**

- Diagnostic Kit (RT-PCR test kit)
- RNA Prep Solution (Virus RNA collection)
- Swap (Sample collection)
- 0.1 ml white 8-Strip RT-PCR tubes or 96 well Plates
- Pipette Tips (with rack, with filter, DNase/RNase free, sterile)

# RESULT INTERPRETATION AND APPLICATION SUPPORT

## Real Time PCR Result Interpretation Guide

**Multiplex SARS-CoV-2 Real-time RT-PCR Kit**

Add reaction mix into each reaction tubes

**Sample Types:**  
 1) NTC  
 2) PC  
 3) Sample

**POSITIVE CONTROL (PC)**  
 N1, N2 (FAM): 1st and 2nd regions specific to Covid-19  
 RP (HEX): RP gene for extraction control (EC)  
 \*\*\* Both channel must give the amplified signals.

**NEGATIVE CONTROL (NC)**  
 N1, N2 (FAM): NONE (-)  
 RP (HEX): NO (-)  
 \*\*\* None of them give amplification in NTC.

**POSITIVE Patient**  
 N1/N2 (FAM) » Ct: ≤ 35 (+)  
 RP (HEX) » 20 ≤ Ct ≤ 35 (+)  
 Although RP (-), the result does not change.

**NEGATIVE Patient**  
 N1, N2 (FAM) » Ct: No value (-)  
 RP (HEX) » 20 ≤ Ct ≤ 35 (+)

**REPEAT This Patient**  
 N1, N2 (FAM) » Ct: No value (-)  
 RP (HEX) » Ct: No value (-)

## TURNKEY RT-PCR LAB PROJECTS

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- 
- 
- 
- 
-

**European Representative:** MedPath GmbH  
 Mies-van-der-Rohe-Strasse 8  
 80807 Munich, Germany

**Product name:** Real-time qPCR System

**Product Model:** Q2000A, Q2000B, Q2000C, Q1000, Q1900+, QT10A, QT10B, QT10C, QT20A, QT20B, QT20C, QT30A, QT30B, QT30C, Q160, Q160A, Q160B, Q160C

**EC DECLARATION OF CONFORMITY**  
According to IVDD 98/78/EC

**Classification:** Class II

**Applied Standards:** EN 61010-1:2010 + A1:2016, EN 61010-2-010:2014, EN 61326-1:2013, EN 61326-2-6:2013, EN 13812:2002, EN 61000-3-2:2014, EN ISO15223-1:2016, EN ISO18113-1:2013, EN ISO18113-3:2013, EN 61000-3-3:2013, EN 62304:2006, EN62366-1:2015

**Conformity assessment procedure:** Annex II of IVDD

**CE certificate No.:** N.A.

**Name and ID of the Notified Body:** N.A.

We, the manufacturer, herewith declare under our sole responsibility that the above-mentioned products meet the provisions of the Directive 98/78/EC on in vitro diagnostic medical devices (IVDD). All supporting documentations are retained under the premises of the manufacturer.

Jialin Zhang  
 Jialin Zhang  
 General Manager

Hangzhou, 08.03.2021

**IVD**



Digital Catalog



Instructions



Web



Contact

 LongGene®



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[info@longgene.com.tr](mailto:info@longgene.com.tr)

