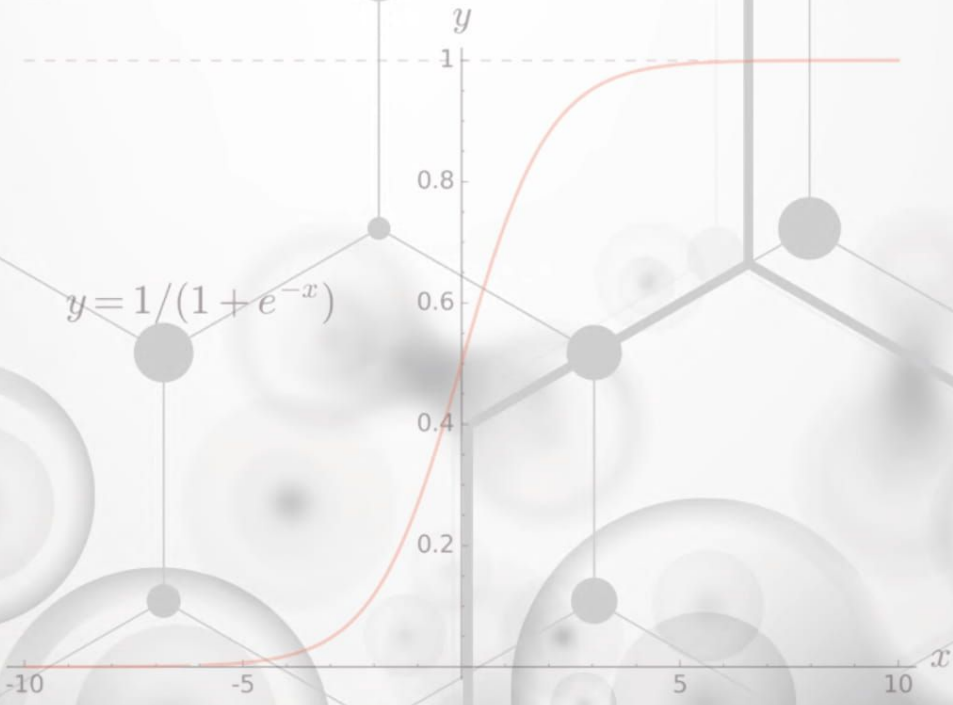
LongGene®

Europe

All about PCR and Real Time PCR



www.longgene.com.tr

REAL TIME PCR INSTRUMENTS

LongGene | Q2000 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

10'' TFT LCD 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: ≥ 1 copy
Dynamic Range: 1-10^{10} (%99.7 reliability)
Block Type : Gradient Peltier
Capacity: 96x0.1 ml (singular /8 strips and 96 well)
Sample Volume: 10-50 ul
Block Temperature Range: 0-105 °C
Temperature Sensitivity: ≤± 0.2 °C (at 90 °C)
Temperature Accuracy : ≤± 0.2 °C (at 90 °C)
Active Temperature Tracking Resolution: 0.1 °C
Heating Rate: 6 °C /second (max)
Cooling Rate: 5 °C /second (max)
Gradient Range: 30-100 °C
Gradient Capacity: 1-30 °C (12 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
Channel-5: CY5.5
Channel-6: RESERVE
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 6 °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 2/4/6 Multiplex reading into a single tube with taqman probes.Has an internal 15.000 protocol capacity.

Absolute Quantification, Melting Curve, Relative Quantitation (ΔCt, ΔΔCt), SNP Genotyping, Pathogen Positive/Negative, etc..

Compatible with IVD products of all brands.

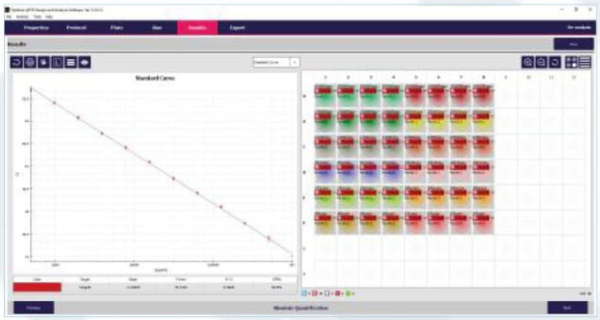
Q2000**A** Model: 2 Channels (supports 7 universal dyes)
Q2000**B** Model: 4 Channels (supports 10 universal dyes)
Q2000**C** Model: 6 Channels (supports 11 universal dyes)

Auto/Manual Normalization

Auto/Manual Threshold

Auto/Manual Baseline

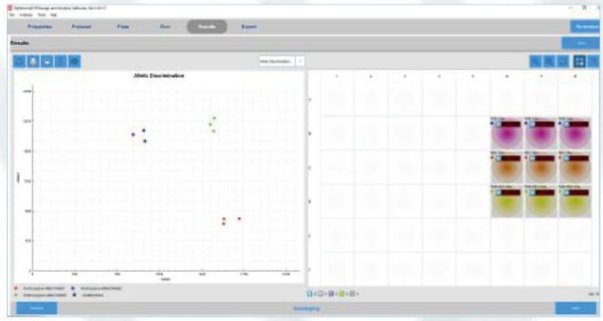
Auto Gain Function
(Calculated automatically)



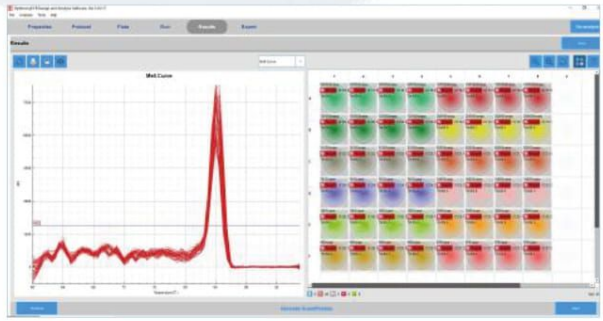
Absolute Quantification
Software automatically draws the 'standard line' according to the standards you know the amount (number of copies) and gives the number of copies according to the Ct (threshold) values of your samples.
Plate view and curves on one screen.

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)

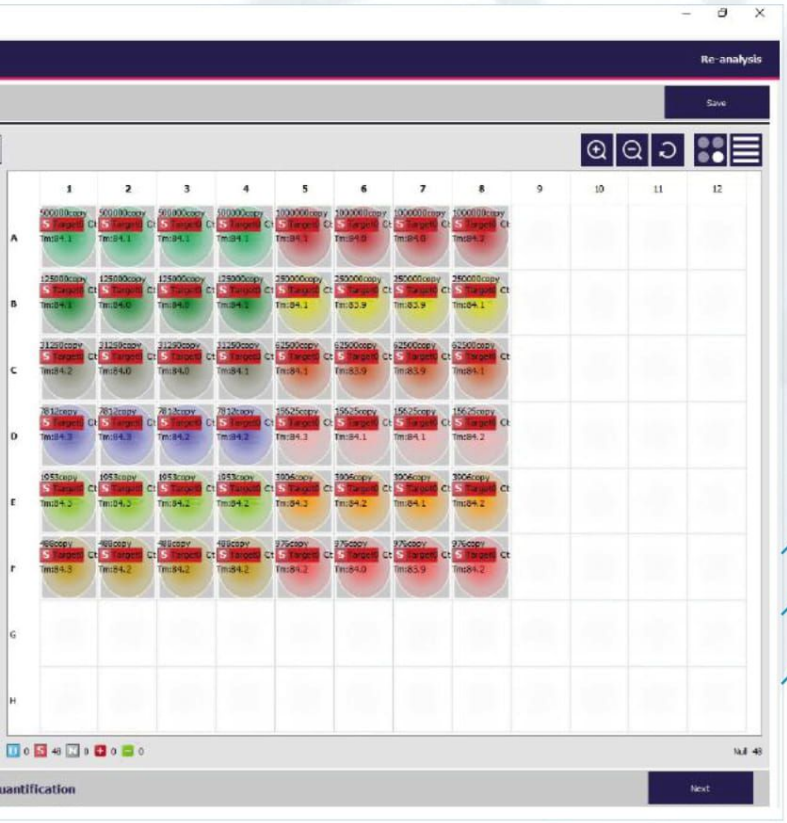


SNP (Single Nucleotide Polymorphism)
Genotyping analysis



High resolution graphs and fluorescence for Melting Curve

ANALYSIS SOFTWARE

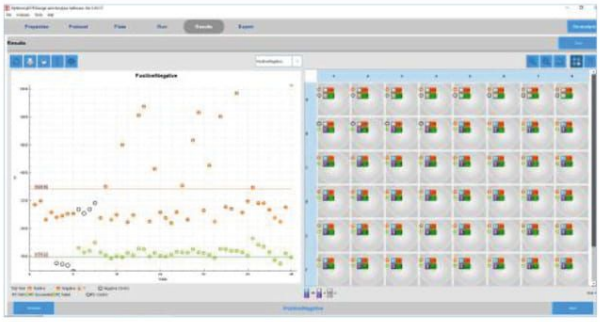


Auto Efficiency Calculation

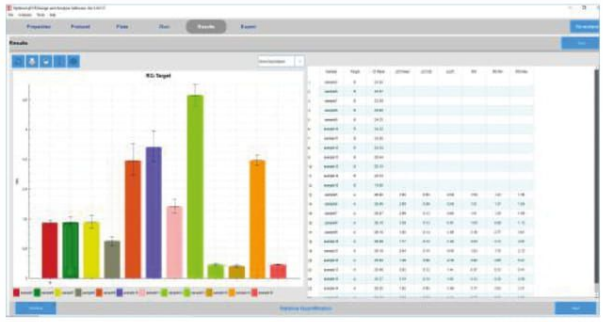
Plate or List View

Functional Report Options

Copy/Past Your Sample Names
(Horizontal or Vertical)
from an Excel file, easily



PLUS/MINUS
Fast pathogen detection and analysis

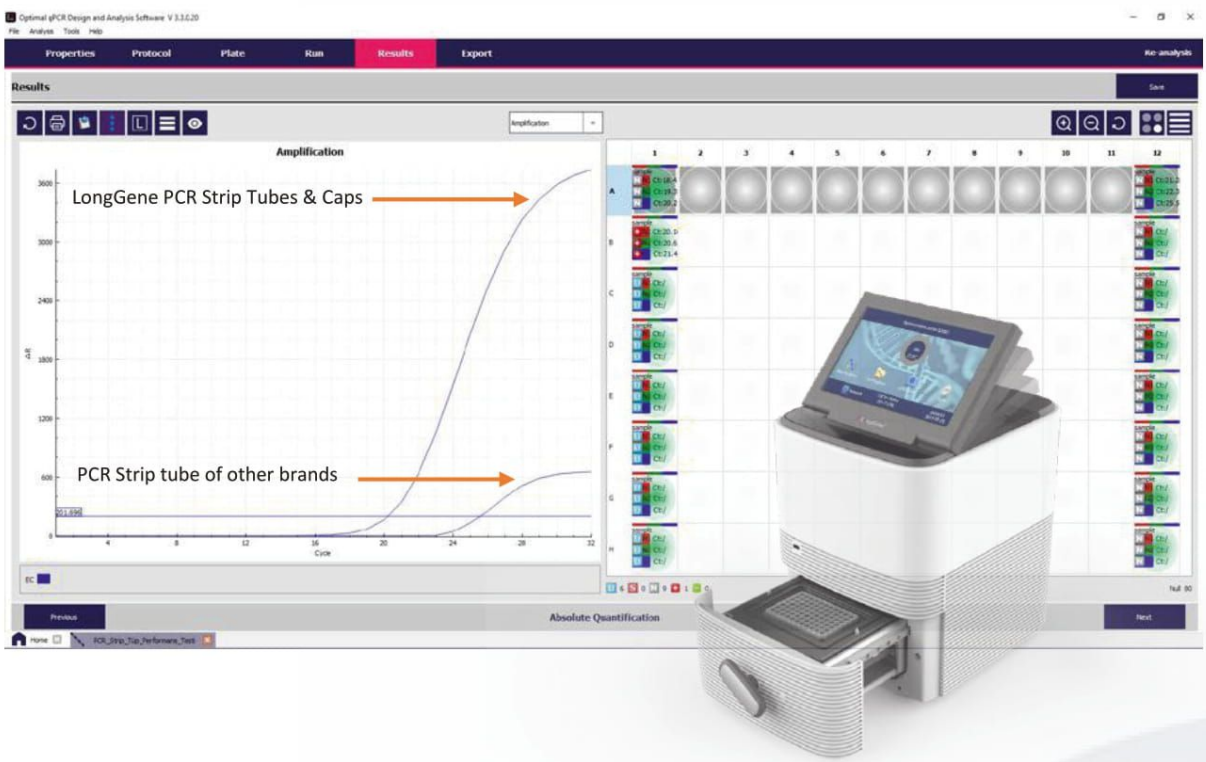


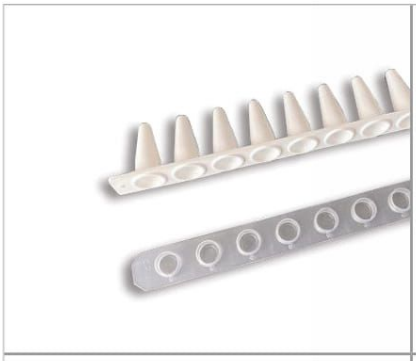
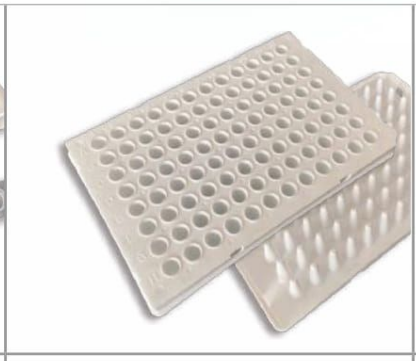
Relative Quantification
It creates a statistical report of different gene regions according to the obtained Ct values; Automatically calculates and reports ΔCt Mean, ΔCt SE, ΔΔCt, RQ, RQ Min and RQ Max.

<u>The reporting features of the software;</u>

- 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



		
PCR Strip Tube with Cap	**96 Well RT-PCR Plate**	**Sealing for Plate**
LGT001-E	**LGP001-E**	**LGS001-E**
• Thin and highly uniform • Durable at low and high temperatures • High heat transfer efficiency • Maximum heating temperature: 150 °C • The lowest storage temperature: -86 °C • Medical Polypropylene • Purity is 99.9 % • Numbered wells (96 Well: A to H, 1 to 12) • Compatible with similar RT-PCR instruments		• Maximum heating temperature: 150 °C • Polyethylene, ultra thin • Durable and optically clear • Good sealing performance • Easy to peel off • Low residue • Free from DNase, RNase • Non Pyrogenic

Real Time PCR Lab Equipments:

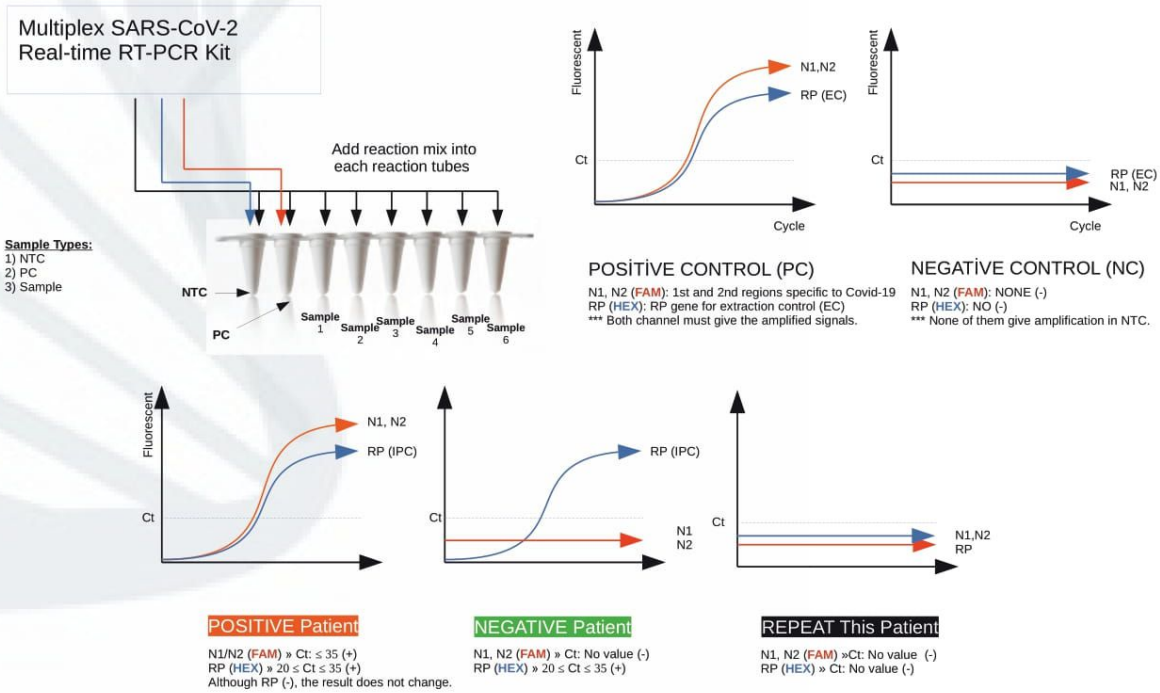
- ☐ Real Time PCR
- ☐ Biosafety Cabinet (Class II A2 or B2)
- ☐ Digital/Electronic Pipettes (with stand)
- ☐ Benchtop Cooler (to prepare the mixes at +4 °C)
- ☐ Mini Spin (8-strips) or Plate Centrifuge (to use with 8-strip tubes)
- ☐ Plate Centrifuge (to use with 96 well RT-PCR plates) Vortex

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



POSİTİVE 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.

NEGATİVE 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

Digital Catalog

Instructions

Web

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Contact