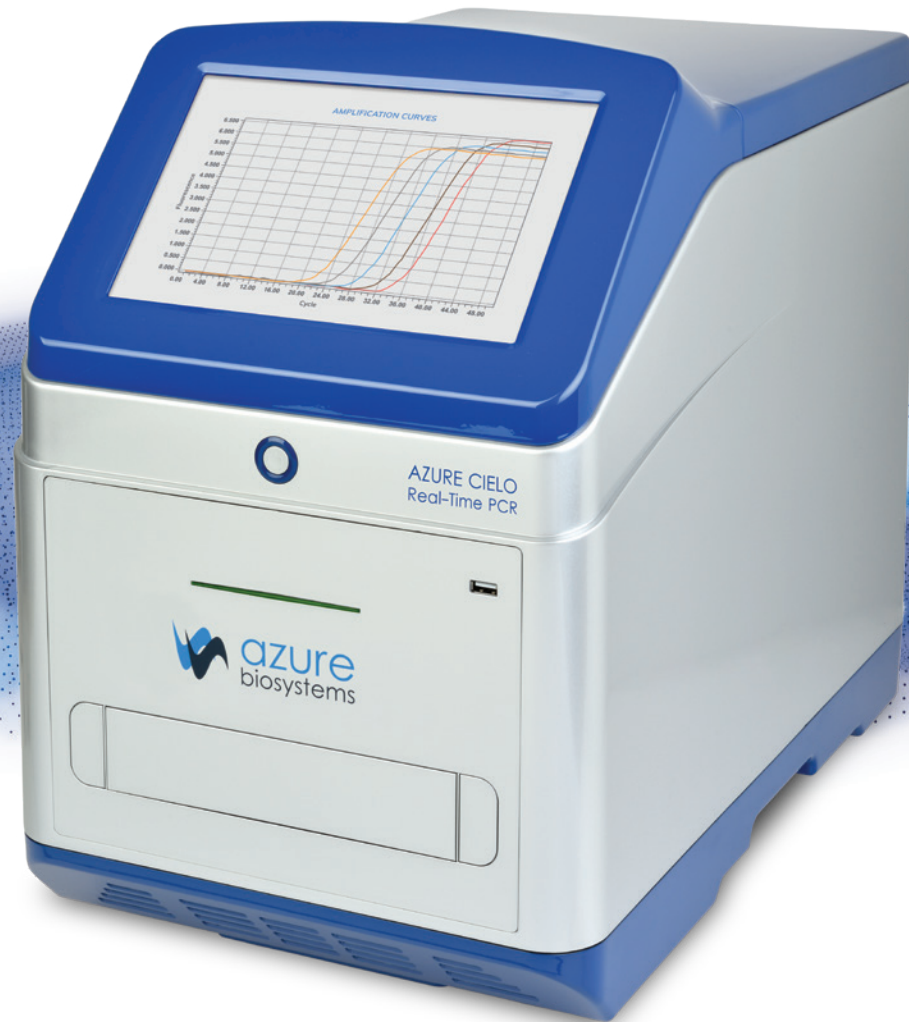


# Azure Cielo™

Real-Time PCR Systems





AZURE CIELO  
Real-Time PCR

 azure  
biosystems

# Harness the power of qPCR

The Azure Cielo Real-Time PCR system brings you the accuracy and sensitivity you need for your research, with intuitive touch screen software. The Cielo 3 and the Cielo 6 allow you the flexibility to select a system that fits both your applications and your budget.

The Azure Cielo 3 and Cielo 6 bring you:

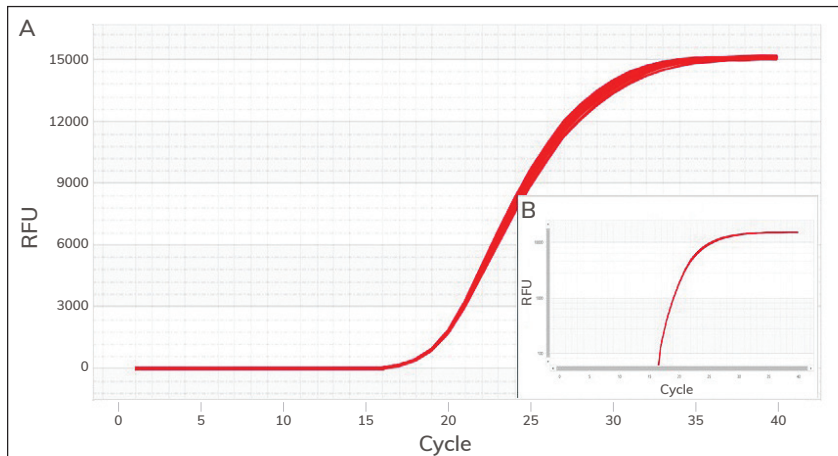
- **Flexibility**—Engineered for a wide variety of qPCR applications, with high sensitivity and wide dynamic range
- **Intelligent workflow**—Our user interface allows simple touch screen assay setup. Saved protocols make assay set up easy and reproducible.
- **Reliability**—Cielo's optics and thermal block are designed to deliver the same uniformity and reproducibility over at least 1000 qPCR experiments, giving you confidence in the reliability of the instrument
- **Connectivity**—No external PC is required to run the instrument. Data can be transferred via Ethernet, Wi-Fi or USB



# Performance without compromise

## TIGHT REPLICATES THROUGH SUPERIOR INTER-WELL UNIFORMITY

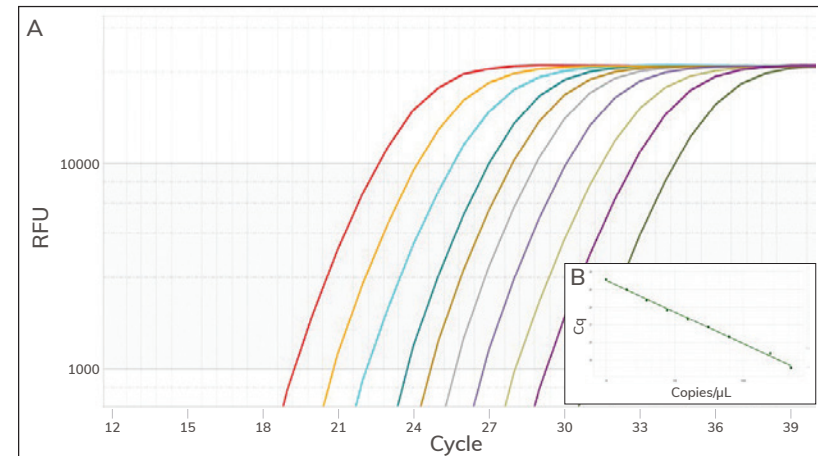
Reliable, reproducible results begin with well-to-well temperature uniformity. Work with confidence that each well is behaving identically.



**Unparalleled uniformity.** Amplification curves for 96 replicates shown a linear plot (Figure A) and a logarithmic plot (Figure B). In each well,  $10^5$  copies of GAPDH template were amplified in the presence of GAPDH primers and BioRad™ Sso Advanced SYBR Green Mix®. Average Cq = 19.1, Coefficient of variance (Cv)= 0.002.

## RELIABLY DETECT 2-FOLD DIFFERENCES IN TARGET AMOUNT

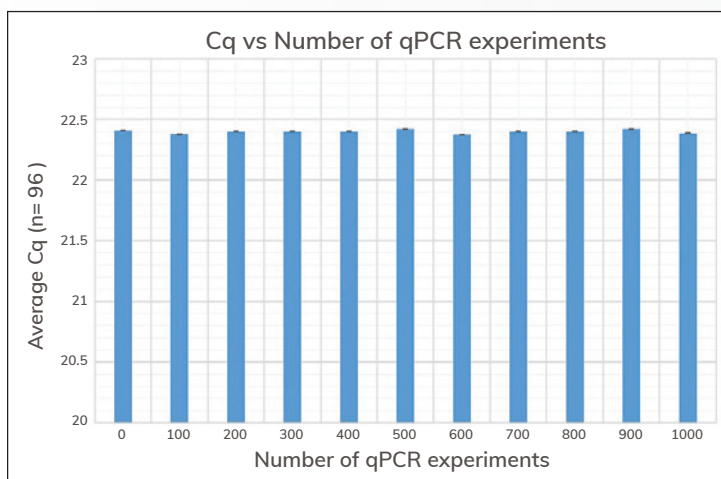
High thermal uniformity and reproducibility lead to confident detection of 2-fold differences in gene expression.



**Reliable detection.** Amplification curves are shown for assays of GAPDH in a dilution series of human reference cDNA (n=3) (Figure A). Assays were conducted using BioRad™ Sso Advanced SYBR Green Mix®. Figure B shows the standard curve obtained by plotting Cq values vs the Amount of Template DNA (copies/μl).  $R^2=0.998$ , efficiency = 99.89%.

## ROBUST DESIGN FOR THE LIFETIME OF YOUR LAB

Durable thermal and optical systems ensure reproducible data over a minimum of 1000 qPCR experiments.



**Robust design.** After sequential sets of 1000 continuous qPCR experiments, a GAPDH qPCR assay was performed and Cq values were recorded. Average Cq in each assay = 22.4,  $\pm 0.01$ .

## CHOOSE BETWEEN THE CIELO 3 AND THE CIELO 6 FOR YOUR APPLICATIONS



| Dyes/ Probes  | Azure Cielo 3 | Azure Cielo 6 |
|---|---------------|---------------|
| SYBR™ Green, EvaGreen™, FAM™                            | ✓             | ✓             |
| VIC®, HEX™, JOE™, CAL Fluor® 540, CAL Fluor® Orange 560 | ✓             | ✓             |
| TAMRA™  |               | ✓             |
| ROX™, TEX®615, CAL Fluor® Red 610                       |               | ✓             |
| Cy®5, Quasar®670, Liz®, Mustang Purple®                 | ✓             | ✓             |
| Cy®5.5  |               | ✓             |

Other dyes/probes are possible depending on the system configuration.

# Let's get started

The hardest part of your experiment shouldn't be setting up your run. We've developed a guided, step by step approach to help you set up your cycling conditions and dyes, so you can minimize set up time.

- Workflows designed to minimize time needed to setup each run
- Receive end-of-run notification and data file via email, or simply connect to the machine via Wi-Fi/Ethernet or USB
- Simple-to-use, 10.2" touchscreen allows you to setup runs with the touch of a finger

OPTION TO SINGLEPLEX OR MULTIPLEX YOUR QPCR REACTION BY SELECTING THE APPROPRIATE CHEMISTRY

EASY TOUCHSCREEN SETUP OF QPCR RUN PROFILE INCLUDING MELT CURVE.



# Azure Cielo Analysis

## EXPERIMENTAL TEMPLATES

Pre-programmed assays allow for easy selection of calibrators, controls and other experiment related parameters.

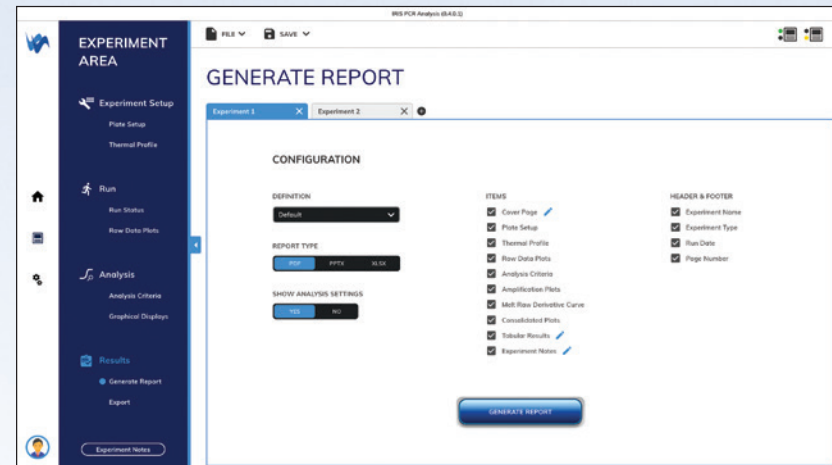
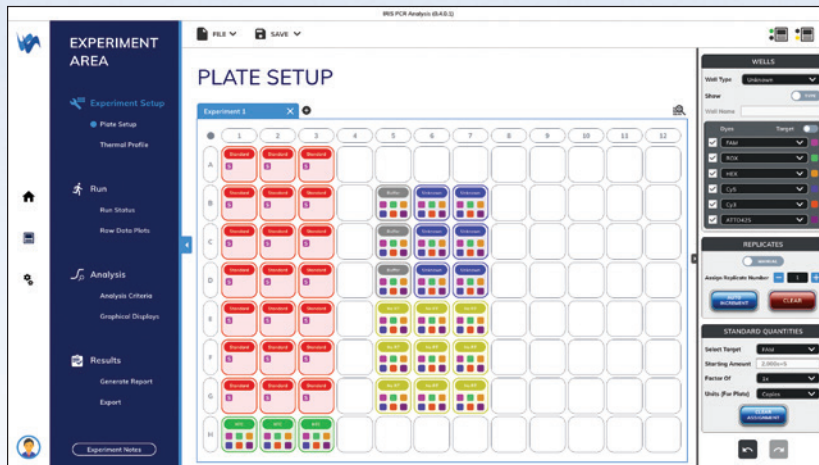
Template assays available to choose from:

1. Quantitative PCR
2. Allele Discrimination
3. Comparative Quantification
4. High-Resolution Melt

## CUSTOMIZED DATA REPORTING

Customized data reporting that allows the user to choose which data sets are exported and displayed.

1. Plate Setup
2. Experiment Thermal Profile
3. Raw Data Plots
4. Amplification Plots
5. Graphical Displays
6. Statistical Data
7. Experimental Notes



Well defined plate layout allows user to quickly identify each well with a glance.

## Specifications

|                         | Azure Cielo 3<br>Real Time PCR System   | Azure Cielo 6<br>Real Time PCR System   |
|-------------------------|---|---|
| Part number             | AIQ030  | AIQ060  |
| Product description     | 96-well Real-Time PCR instrument with 10.2" touchscreen interface, 3 dye channel filters                | 96-well Real-Time PCR instrument with 10.2" touchscreen interface, 6 dye channel filters  |
| Sample capacity (wells) | 96  | 96  |
| Reaction volume         | 10–150µL  | 10–150µL  |
| Excitation source       | LED   | LED   |
| Detection channels      | 3   | 6   |
| Multiplexing            | Up to 3 targets   | Up to 6 targets   |
| Thermal element         | Peltier   | Peltier   |
| Max. block ramp rate    | 6°C/sec   | 6°C/sec   |
| Avg. sample ramp rate   | 4°C/sec   | 4°C/sec   |
| Temperature uniformity  | ±0.2°C  | ±0.2°C  |
| Temperature accuracy    | ±0.1°C  | ±0.1°C  |
| Dye compatibility       | SYBR Green, EvaGreen, FAM, VIC, JOE, HEX, CAL Fluor 540, CAL Fluor Orange 560, Cy5, LIZ, Mustang Purple | SYBR Green, EvaGreen, FAM, VIC, JOE, HEX, CAL Fluor 540, CAL Fluor Orange 560, ROX, TAMRA, TEX615, Quasar 670, CAL Fluor Red 610, Cy5, LIZ, Mustang Purple, Cy5.5, Quasar 705 |
| Custom dye/chemistry    | ✓   | ✓   |
| Chemistry capability    | Fast/Standard   | Fast/Standard   |
| Detection sensitivity   | 1 copy  | 1 copy  |
| Sensitivity             | Detect differences as small as 2-fold in target quantities in singleplex reactions                      | Detect differences as small as 2-fold in target quantities in singleplex reactions  |
| Connectivity            | USB, Wi-Fi, Ethernet  | USB, Wi-Fi, Ethernet  |



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**The Azure Cielo 3 and Azure Cielo 6 are for Research Use Only. Not for use in diagnostic procedures.**

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