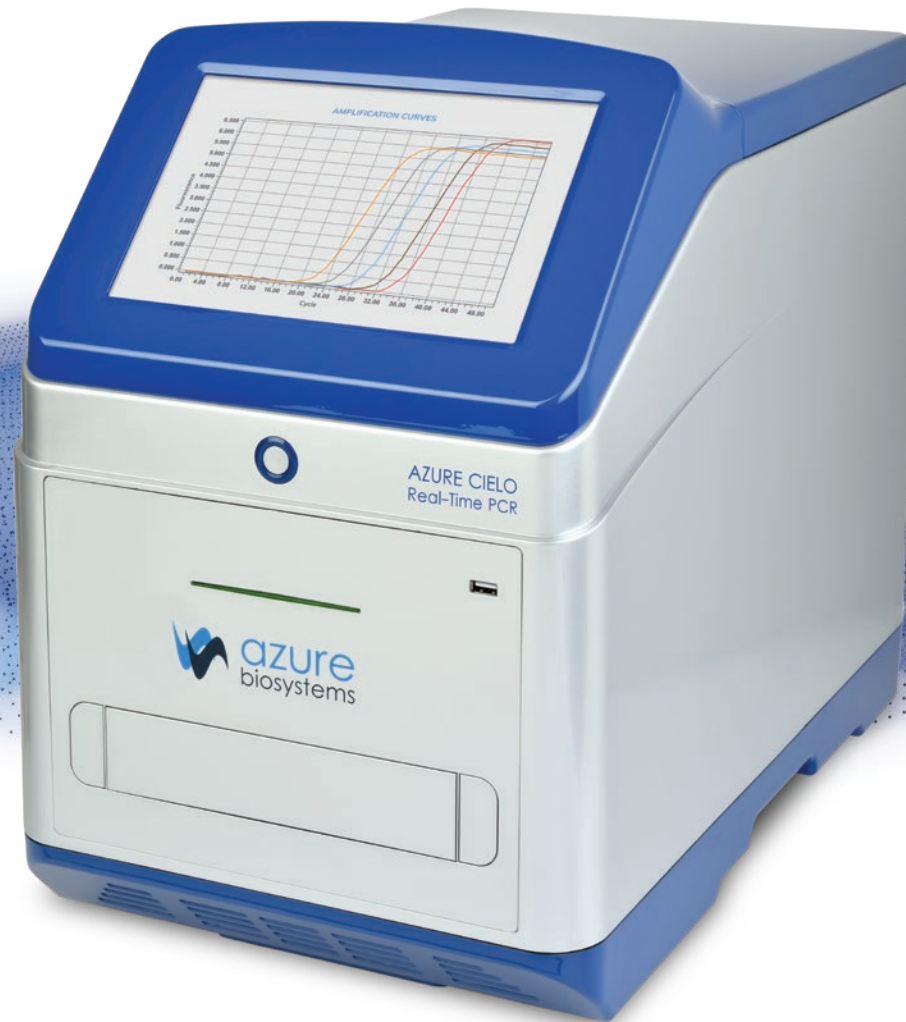


Azure Cielo™

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 of 10 logs. Ability to run reactions in 96 well tubes or plates or 8-well or 12-well tube strips. Open system that uses most other commercial DNA binding dyes and Hydrolysing probes. No requirement for internal reference/calibrated dye. Use easily as standard gradient PCR when required.
- **Intelligent workflow**—Our user interface allows simple touch screen assay setup and multi-user logins to make each run easy and reproducible. Detect & analyse a different gene, SNP or pathogen target in every well of the 96-well plate. No restriction on the number of assays or targets that can be run on a single 96-well plate.
- **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.

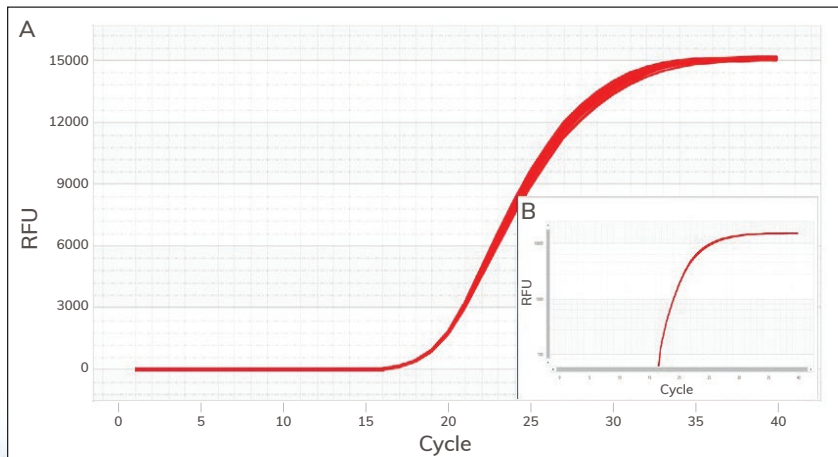


Performance without compromise

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. Detection sensitivity of less than 10fmol of fluorescein.

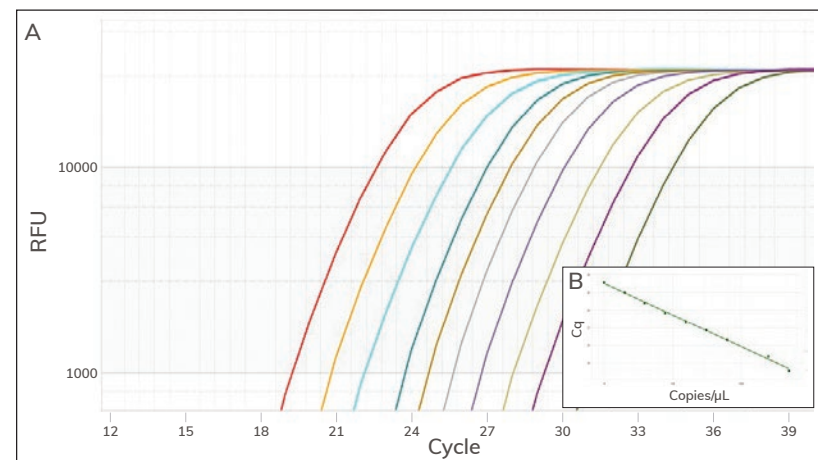
CMOS detector integrated with a fiber-optic system ensures individual detection for each well along with 16-well simultaneous excitation. Readout times of 1 second for fast well reading, and 9 seconds for 6 channels in 96 wells.



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

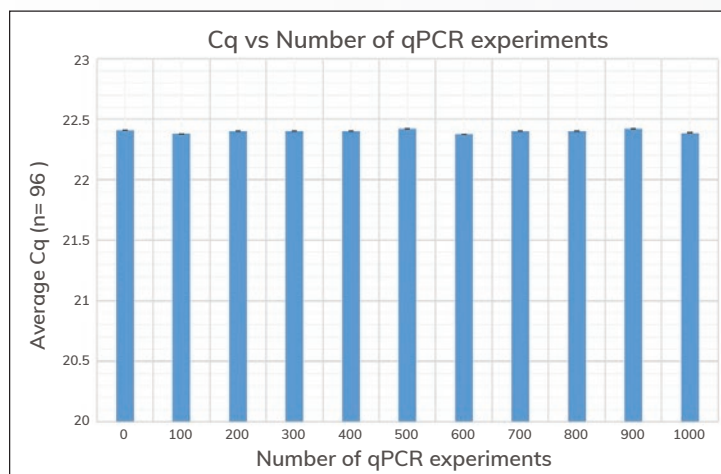
High thermal uniformity and reproducibility lead to confident detection of 2-fold differences in gene expression.



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, ± 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™, Cy3		✓
ROX™, TEX®615, CAL Fluor® Red 610		✓
Cy®5, Quasar®670, Liz®, Mustang Purple®	✓	✓
Cy®5.5, Quasar 705		✓
TaqMan™	✓	✓

TaqMan™ and 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.

Easily & quickly set up 12 independent gradient temperature zones with a range of 30°C – 99.9°C, maximum gradient span of 40°C. Temperature increments of 0.1°C.

- 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, 10.3" touchscreen allows you to setup runs with the touch of a finger
- Real-time amplification curves and temperature progression graphs

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

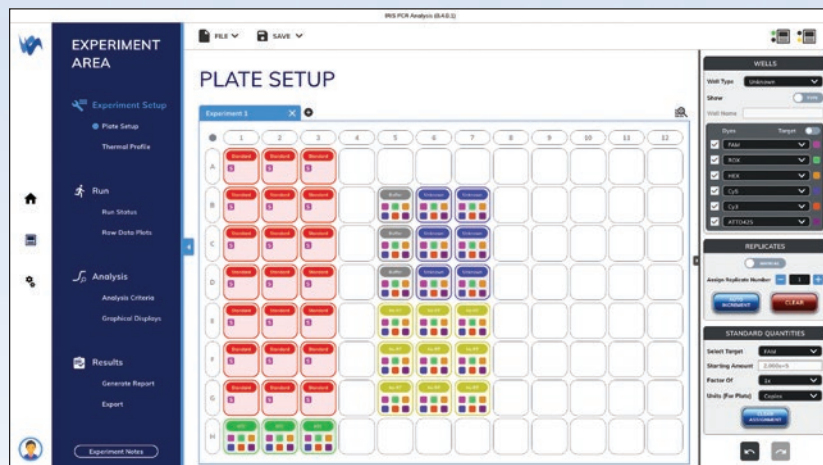
EASY TOUCHSCREEN SETUP OF QPCR
RUN PROFILE INCLUDING MELT CURVE.



Azure Cielo Analysis

EXPERIMENTAL TEMPLATES

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



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

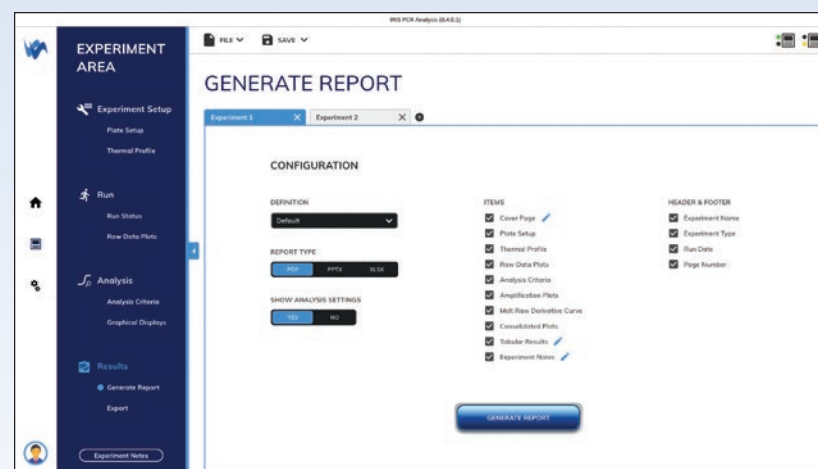
Template assays available to choose from:

- | | |
|-------------------------------|---|
| 1. Quantitative PCR | 8. SNP Genotyping |
| 2. Allele Discrimination | 9. Mutation Analysis |
| 3. Comparative Quantification | 10. Absolute & Relative Quantification (Comparative Ct) |
| 4. High-Resolution Melt | 11. Multiplex Endpoint Analysis |
| 5. Melt Curve Analysis | 12. Standard Curve |
| 6. Gene Expression | 13. Pathogen Detection |
| 7. Copy Number | |

CUSTOMIZED DATA REPORTING

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

Easily Copy/Paste data or graphs onto Paint, Microsoft Office or other supported applications as needed. Export data in MS-office, PDF or in MIQE preferred RDML (1.0, 1.1, 1.2) format.



- | | |
|-------------------------------|----------------------------|
| 1. Plate Setup | 5. Graphical Displays |
| 2. Experiment Thermal Profile | 6. Statistical Data |
| 3. Raw Data Plots | 7. Experimental Notes |
| 4. Amplification Plots | 8. MIQE and RDML Compliant |

Specifications

Part number
Product description
Sample capacity (wells)
Sample type
Reaction volume
Excitation source
Detection channels
Multiplexing
Thermal element
Lid temperature
Reaction temperature
Max. block ramp rate
Avg. sample ramp rate
Temperature uniformity
Temperature accuracy
Dye compatibility
Custom dye/chemistry
Chemistry capability
Detection sensitivity
Sensitivity
Onboard memory
Connectivity
Electrical approvals

Azure Cielo 3 Real Time PCR System

AIQ030
96-well Real-Time PCR instrument with 10.3" touchscreen interface,
3 dye channel filters
96
96-well plates & tubes and 8 or 12-well strips & single tubes
10–150µL
LED, Excitation range: 450–580nm and 610–700nm
3
Up to 3 targets
Peltier
Heats up to 100–105°C
4°C to 99.9°C
6°C/sec
4°C/sec
±0.2°C
±0.1°C
SYBR Green, EvaGreen, FAM, VIC, JOE, HEX, CAL Fluor 540,
CAL Fluor Orange 560, Cy5, LIZ, Mustang Purple, Quasar 670
✓
Fast/Standard
1 copy
Detect differences as small as 2-fold in target quantities
in singleplex reactions
32GB equivalent to 20,000 experiments
USB, Wi-Fi, Ethernet
CE Certified

Azure Cielo 6 Real Time PCR System

AIQ060
96-well Real-Time PCR instrument with 10.3" touchscreen interface,
6 dye channel filters
96
96-well plates & tubes and 8 or 12-well strips & single tubes
10–150µL
LED, Excitation range: 450–730nm
6
Up to 6 targets
Peltier
Heats up to 100–105°C
4°C to 99.9°C
6°C/sec
4°C/sec
±0.2°C
±0.1°C
SYBR Green, EvaGreen, FAM, VIC, JOE, HEX, CAL Fluor 540,
CAL Fluor Orange 560, ROX, TAMRA, Cy3, TEX615, Quasar 670,
CAL Fluor Red 610, Cy5, LIZ, Mustang Purple, Cy5.5, Quasar 705
✓
Fast/Standard
1 copy
Detect differences as small as 2-fold in target quantities
in singleplex reactions
32GB equivalent to 20,000 experiments
USB, Wi-Fi, Ethernet
CE Certified



6747 Sierra Court, Suites A-B • Dublin, CA 94568 USA

Phone: 925.307.7127 • Fax: 925.905.1816

info@azurebiosystems.com • www.azurebiosystems.com

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