

THE NEXT-GENERATION FLEXIBLE DIGITAL PCR SOLUTION



 Crystal Digital PCR™



Crystal Digital PCR™

Stilla's Crystal Digital PCR™ technology for absolute quantification of nucleic acids is based on cutting-edge microfluidic technology that integrates the digital PCR process in a single consumable, reducing hands-on time and interaction, so you can simply insert your sample and walk away.

The sample is partitioned using a network of microchannels into a large array of individual droplets, also called a droplet crystals. The individual droplets are partitioned into identical sizes — each its own reaction compartment — before PCR. PCR then amplifies the fluorescent target in the droplets. The result is the accurate and precise quantification of multiple targets in a single reaction, saving you both time and precious sample.

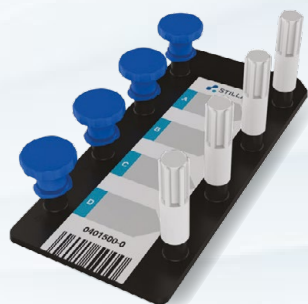
With a combination of powerful imaging, the flexibility to use up to 6 detection channels, and proprietary software for analysis, Crystal Digital PCR™ is designed to offer an unmatched level of confidence in digital PCR measurement.

FEATURED PRODUCTS

PREPARE ●

● Sapphire chip

Up to 12 samples / run
Up to 30,000 droplets / sample
For high sensitivity applications



● Opal chip

Up to 48 samples / run
Up to 20,000 droplets / sample
For flexible throughput

AMPLIFY ●



● Geode

Thermocycler for partitioning and amplification

WHAT IS THE naica[®] system ?



PREPARE ● | **AMPLIFY** ● | **READ** ● | **ANALYZE** ●

The naica[®] system harnesses the key principles of digital PCR and is designed to provide a sensitive, fast, and easy-to-use solution.



Easy-to-use digital PCR solution

On-chip integrated workflow
Minimal hands-on time



Flexible Digital PCR

Up to 6-color target multiplexing
From 12 to 48 samples / run



Fast time to results

Prepare (10 min), Amplify (2 hrs), Read (<1 hr),
Analyze (5 min)

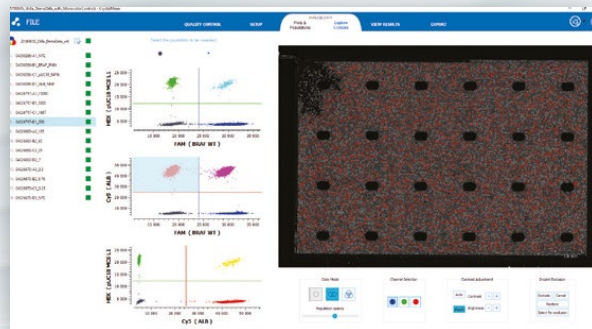
READ ●



● Prism6

High multiplexing capacity
3- or 6-color system configuration
Wide range of fluorophore compatibility

ANALYZE ●



● Crystal Miner software

Intuitive software for visual inspection
and analysis

Crystal Digital PCR™

PREPARE



Load the reaction mix into the wells of the chips.

- naica® PCR MIX reagents are developed for enhanced performance for Crystal Digital PCR™ on the naica® system



AMPLIFY



Place the chips in the Geode.

Launch the Crystal Digital PCR™ program.

- Thousands of droplet crystals are created from each sample
- PCR amplification is performed immediately after droplet crystal generation

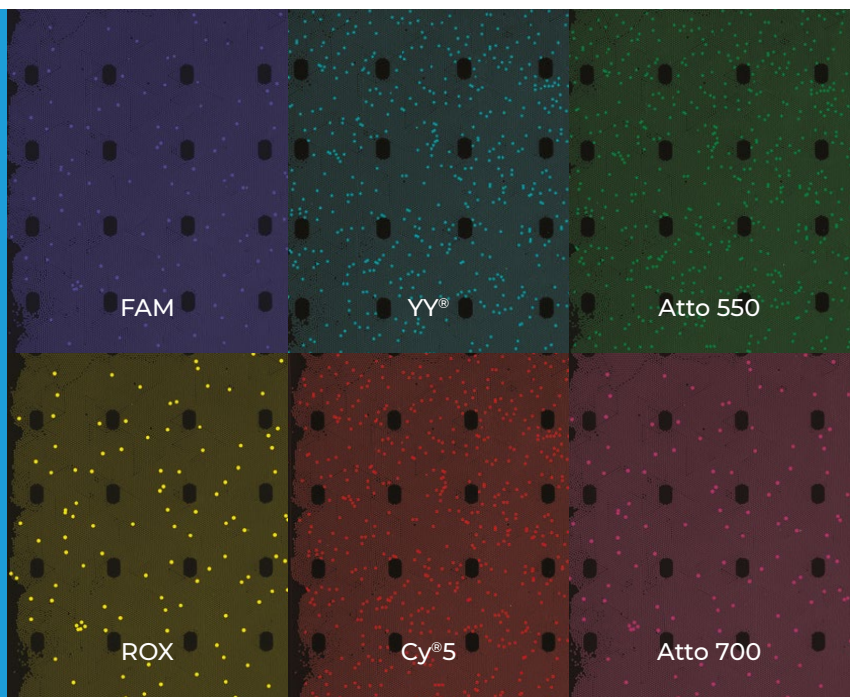


READ



Transfer the chips to the Prism6.

- Droplet crystals are imaged using up to 6 fluorescent channels



ANALYZE



Measure the concentrations of targeted nucleic acids with Crystal Miner software.

- Intuitive tool for visual inspection and analysis of Crystal Digital PCR™ experiments
- Automatic quality control for experiment performance
- Automatic identification of positive and negative droplets for all fluorescence channels

01 EXPLORE

Explore data
using 1D, 2D, or 3D dot plots

02 INSPECT

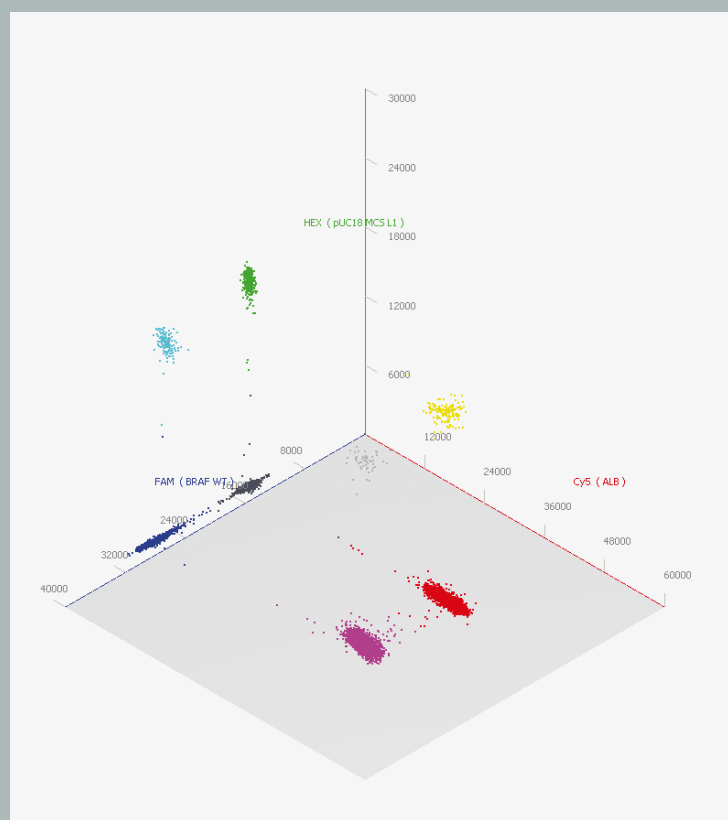
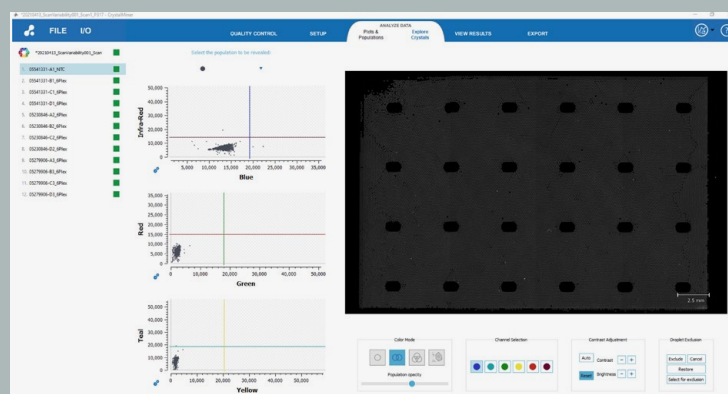
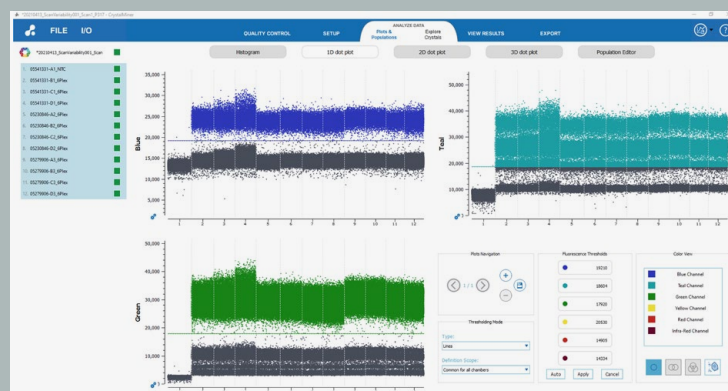
Inspect droplet crystals
and zoom in for quality control (droplet fluorescence versus spatial position in the crystal)

03 VISUALIZE

Get results
target nucleic acid concentrations

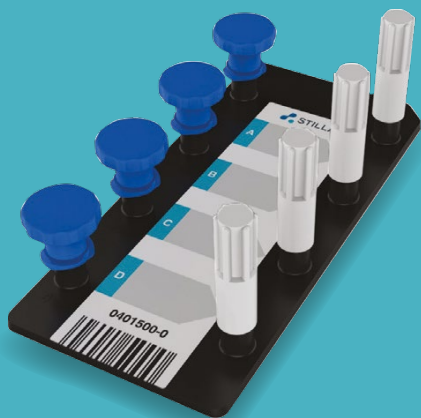
04 ACCESS

Access raw data
and export all experiment details and results



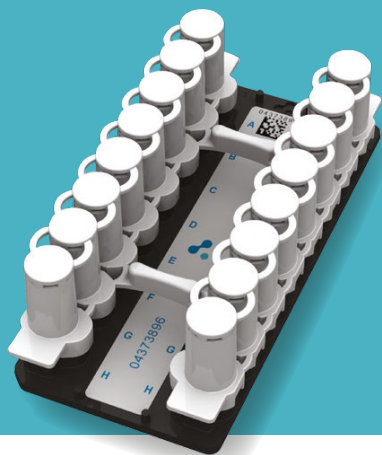
Crystal Digital PCR™

Sapphire chip



Capacity	4 samples / chip
Number of chips per box	12
Input volume	25 μ L / sample
Number of droplets per sample	Up to 30,000
Dynamic range of detection (95%)	~ 5 logs

Opal chip



Capacity	16 samples / chip
Number of chips per box	12
Input volume	7 μ L / sample
Number of droplets per sample	Up to 20,000
Dynamic range of detection (95%)	~ 5 logs

Geode



Capacity with Sapphire chip	<ul style="list-style-type: none">• Up to 12 samples (3 chips) / run• Up to 36 samples / 8h shift (3 runs)
Capacity with Opal chip	<ul style="list-style-type: none">• Up to 48 samples (3 chips) / run• Up to 144 samples / 8h shift (3 runs)
Footprint (WxDxH)	35 x 37 x 29 cm
Power supply	100-240 V~ // 50 Hz // 750W

SPECIFICATIONS

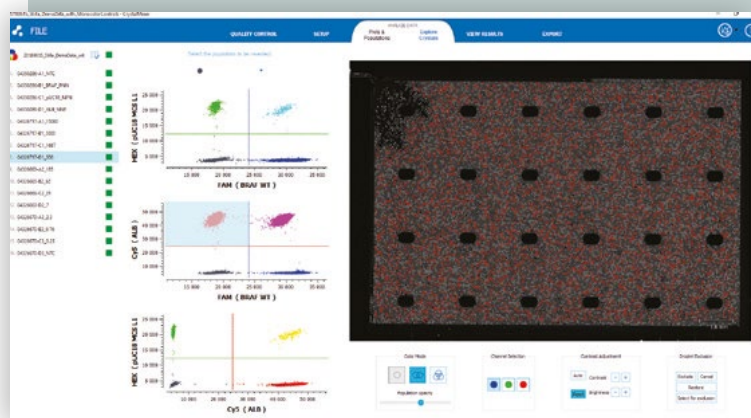
Prism6



Capacity	Up to 3 chips / run
Scan time	Less than 1h
Compatible fluorophores with 3-color configuration*	FAM, Atto550, Cy [®] 5...
Compatible fluorophores with 6-color configuration*	FAM, YY [®] , Atto550, ROX, Cy [®] 5, Atto700
Power Supply	110-240 V / 400W
Footprint	50 x 60x 36cm

*Equivalent fluorophores can be used within the same wavelengths range

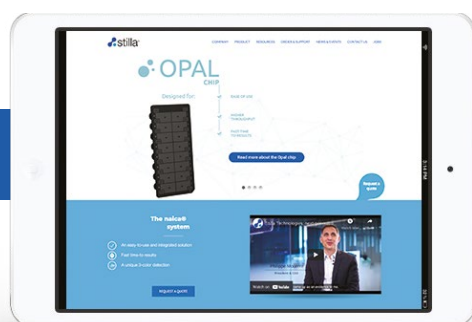
Crystal Miner software



License & updates fees	Free
File format	.ncx (naica crystal experiment) .ncr (naica crystal result)
Data visualization	Droplet crystal imaging; 1D, 2D, 3D plots
File size	60 MB / well (.ncx) 10 MB / well (.ncr)
Export format	.csv / .xlsx / .png / .yaml
Threshold	Automatic and manual
Compensation matrix	Automatic and manual
Pooling	Manual

A RANGE OF APPLICATIONS

Experience the flexibility of the naica® system for a wide range of key nucleic acid detection and quantification applications.



To discover more
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