

# Absolute Q™ Digital PCR Platform

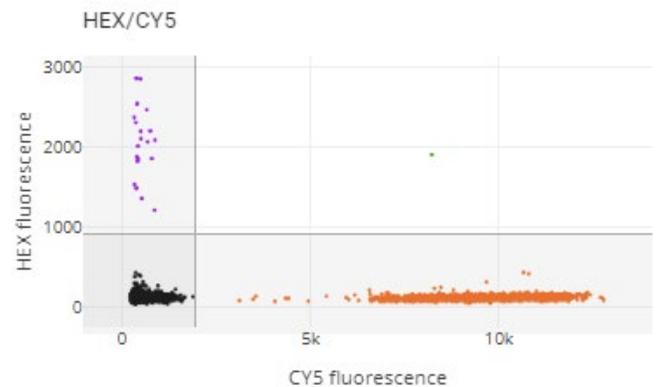
The Combinati Absolute Q is the most accurate and consistent digital PCR platform.

Consumable plates with patented Microfluidic Array Partitioning technology allow for over 95% of the sample to be analyzed across over 20,000 consistently generated partitions. What will be revealed when you start looking at the whole picture?



## Why Digital PCR?

Digital PCR (dPCR) is a nucleic acid quantification technique that allows absolute quantification without the need for standard curves. Bulk reaction mix is partitioned into thousands of small independent reactions so that each partition contains either one or zero copies of the target. Statistical methods are then used to calculate the original concentrations based on the number of positive and negative partitions.

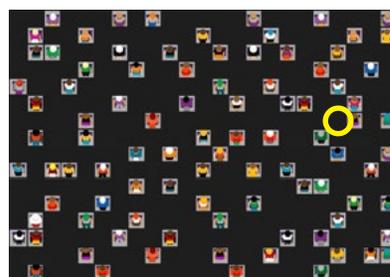


**Figure 1.** Positive and negative partitions across two optical channels are shown in the graph above.

## Seeing the Whole Picture

When partitioning a reaction, it's important to analyze as much of the loaded reaction as possible to maximize sensitivity and accuracy of measurement. The Absolute Q analyzes over 95% of the sample, delivering more accurate information to help researchers find what they're looking for.

**Figure 2.** Think about finding a friend in a crowded theater. If 75% of the seats are not visible, it's significantly more difficult to find who you're looking for.



**25% Sample Analyzed**  
Competitor



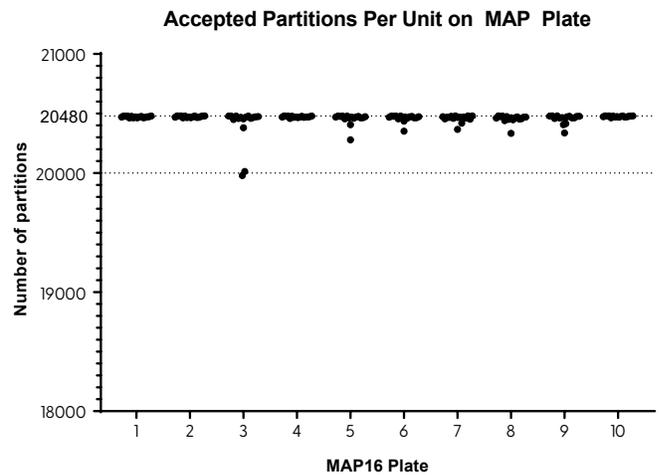
**95% Sample Analyzed**  
Absolute Q



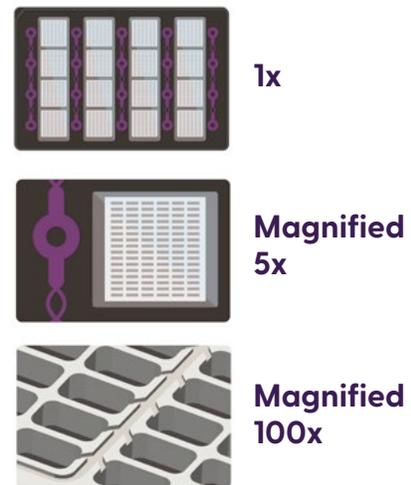
## Microfluidic Array Partitioning (MAP) Consumable

Combinati's MAP consumable uses micro-injection molded plates to overcome common partitioning challenges of inconsistency and high dead volume. This novel approach provides many benefits including: precise partition volume, consistent sample partitioning, and greater than 95% of loaded volume analyzed.

- 16 samples per plate
- 20,000 partitions per reaction
- <5% dead volume

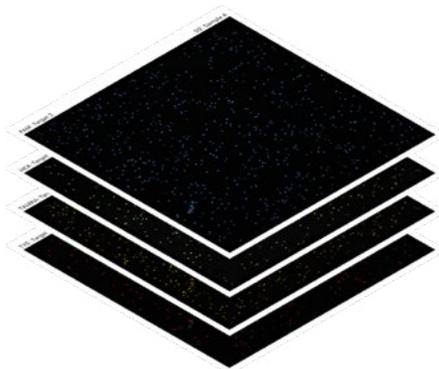


**Figure 2.** This graph shows the number of analyzed partitions for each of the 160 units of 10 MAP plates.



## Enhanced Optical Multiplexing

With the ability to multiplex using up to four optical channels, the Absolute Q enables more targets to be measured per sample, saving time and reagents.



- Blue (466/520)
- Green (514/560)
- Yellow (549/589)
- Dark Red (630/684)

## Broad Applications

The Absolute Q digital PCR platform is an ideal solution for any application requiring high sensitivity, precision and accuracy. Visit our website at [combinati.com/applications](https://combinati.com/applications) to view our wide selection of application notes.

### Research Areas



Oncology



Reproductive Health



Infectious Disease



Inherited Disease



Gene Editing

### Key Applications



Rare Target Quantification



Genotyping



Copy Number Variation



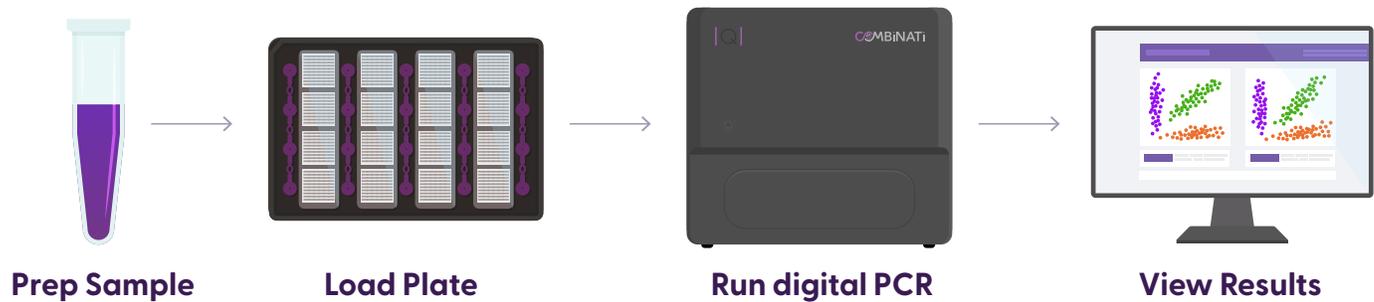
Gene Expression



Absolute Quantification

## Simplified Workflow

The Absolute Q integrates all the necessary steps for dPCR – partitioning, thermalcycling and data acquisition – into a single instrument. Simply pipette the reaction mixture into the Microfluidic Array Partitioning plate as you would for qPCR, and the platform will take care of the rest.



## Easy to Use Analysis Software

Using the control software, parameters such as plate layout, optical channels and thermal conditions can be easily modified so you can start generating data quickly. Once set up, specific protocols can be saved and reloaded, streamlining your workflow.

Visualizing multiplexed data or calculating concentrations across replicates are fast and easy to use. Results can be easily exported for downstream analysis or compiled into a report. With our native cloud solution, you can access the data from anywhere - your lab, office, or on the go.

