

Affordable digital PCR without compromise



Wondering how your research can benefit from digital PCR (dPCR) but are unsure about the steep learning curve that comes with transitioning from qPCR? Then nanoplate-based dPCR technology is the one for you. You can enjoy the same simplicity, speed and affordability as a qPCR workflow. Additionally, you can confidently detect low-abundance transcripts and subtle changes in gene expression and analyze rare variants or high-precision copy numbers.

	qPCR	Nanoplate dPCR
Principle	Bulk reaction analysis Relative quantification: Cq	PCR reaction partitioning into thousands of individual reactions End-point PCR amplification of partitions
Workflow	Prepare PCR reaction intercalating dye or probes REALBRARE ARRAGANI Load reaction mix to PCR plate; add DNA/RNA samples	Prepare PCR reaction intercalating dye or probes NAME NAME
	Real-time PCR amplification Results in ~1.5-2 h	Partitioning, endpoint PCR amplification and imaging
Applications	Rare mutation detection Copy number variation analysis Gene expression analysis miRNA expression analysis Microbial pathogen detection Viral load quantification Liquid biopsy GMO detection Genome edit detection NGS library quantification and validation Residual host cell quantification	
Characteristics	Quantitative, relative or absolute data — standards or references needed Measures PCR amplification at each cycle, exponential response Bulk PCR: • Flexible reaction volumes • Impacted by changes in PCR efficiency • Prone to inhibitors Detects mutation rate at >1% and down to a 2-fold change Broadly accepted, well-established protocols and assays	Quantitative, absolute data — no reliance on references or standards Measures at the end of the PCR cycles, linear response Sample partitioning: • Higher inhibitor tolerance, increased robustness • Unaffected by changes in amplification efficiency • Higher statistical power subject to the Poisson statistics Detects mutation rate at ≥ 0.1% (high signal-to-noise ratio) Higher reproducibility across laboratories

Sample to Insight



The QIAcuity® Digital PCR System is versatile yet adaptable – the instrument together with nanoplates seamlessly integrates partitioning, thermocycling and imaging into a walk-away automated platform. It's quick too, giving results in around two hours.

Nanoplates and instruments come in different configurations and can accommodate a wide range of throughput and sensitivity requirements. Moreover, the different master mixes for the detection of DNA and RNA templates using either hydrolysis probes or intercalating dye are optimized for the highest performance.

Did we trigger your interest?

If yes, let us show you what affordable and accessible digital PCR might look like for you. We'll be offering instrument packages specifically designed for academic labs like yours*.

- QIAcuity One, 5plex with one consumable bundle of your choice
- QIAcuity Four Platform with a combination of two consumable bundles of your choice
- QIAcuity Eight Platform with a combination of three consumable bundles of your choice

Choice of bundles

DNA - EG Bundle

- QIAcuity EG PCR Kit (1 ml)
 250111
- QIAcuity Nanoplate 26k 24-well (10) – 250001
- Nanoplate Tray (2) 250098
- Nanoplate Seals (11) 250099

DNA - Probe Bundle

- QlAcuity Probe PCR Kit (1 ml)
 250101
- QIAcuity Nanoplate 26k 24-well (10) – 250001
- Nanoplate Tray (2) 250098
- Nanoplate Seals (11) 250099

RNA - OneStep Advanced Bundle

- QIAcuity OneStep Advanced Probe Kit (1 ml) – 250131
- QIAcuity Nanoplate 26k 24-well (10) – 250001
- Nanoplate Tray (2) 250098
- Nanoplate Seals (11) 250099



Talk to us directly through a sales representative in your area and get a quote for the package you wish to purchase.

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The QIAcuity is intended for molecular biology applications. This product is not intended for the diagnosis, prevention or treatment of a disease. Therefore, the performance characteristics of the product for clinical use (i.e., diagnostic, prognostic, therapeutic or blood banking) is unknown.