

Roche



Roche Digital LightCycler® System

Simplified workflow: Helping you unleash the true power of digital PCR

Digital 
LightCycler®

It's time for a leap forward in digital PCR technology.

The Digital LightCycler® System from Roche is a digital PCR system that combines sensitivity, precision, flexibility, and integration in one powerful clinical research tool. It was designed to help laboratories push forward the boundaries of clinical research and has the potential to advance global medical knowledge.

365 - The Unique Combination Changing the Future of Digital PCR

The Digital LightCycler® System features a unique combination of features that together make it powerful clinical research tool¹⁻⁴.

- 3** Different nanowell plate configurations.
- 20,000 partition (45 µL) High Sensitivity Plate
 - 28,000 partition (30 µL) Universal Plate
 - 100,000 partition (15 µL) High Resolution Plate

- 6** Advanced optical channels (+1 control), which enables a high degree of multiplexing for DNA or RNA targets.

- 5** Times concentrated DNA & RNA master mixes where 4 parts of sample to 1 of master mix means up to 2/3 of the total reaction volume can come from the extracted sample.

These 3 key features allow the Digital LightCycler® System to elevate clinical research through advances in 4 key areas



Sensitivity

The 20,000 partition plate is capable of detecting indels down to <0.2% allele fraction while the 28,000 partition plate can detect rare mutations down to <0.1% allele fraction.⁵



Precision

The 100,000 partition plate offers laboratories the ability to discriminate small differences between samples, excellent cluster tightness and clarity of results, and absolute quantification. Quick, clear, reproducible results may provide greater confidence with shorter turnaround times for publishable scientific research and the potential for the development of clinically viable assays.



Flexibility

The features on the Digital LightCycler® System make it a powerful research tool in digital PCR: Address multiple challenges at once with its 3 nanowell plates, choose batch size increments of between 8 and 96 samples per run, increase resolution by combining lanes for results of a single sample, enable high multiplexing with a 6 optical channel analyzer, and simplify your workflow with sample tracking and automated data analysis.



Integration

The Digital LightCycler® System brings reliable confidence in results by combining its 3 nanowell plate configurations, 6 advanced optical channels, and 5x concentrated master mixes with other powerful features—a closed system to minimize the chance of amplicon contamination, LIS connectivity, and absolute quantification without the need for standard curves.

1. <https://www.bio-rad.com/en-us/life-science/digital-pcr/qx-one-droplet-digital-pcr-ddpcr-system> (last accessed on 06/17/2022)
2. <https://www.qiagen.com/us/products/instruments-and-automation/pcr-instruments/qiacuity-digital-pcr-system/> (last accessed on 06/17/2022)
3. <https://www.stillatechnologies.com/6-color-dpcr/> (last accessed on 06/17/2022)
4. <https://www.thermofisher.com/order/catalog/product/4489084> (last accessed on 06/17/2022)
5. Roche Data on File. DH_02365.01_0318_Digital_LightCycler_Reagent_Feasibility_Report_v3, Document Number:000000000001200000501942.

Sophisticated instrumentation, simplified workflow

Whether developing assays or running clinical tests, the Digital LightCycler® System offers a simplified workflow.





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