One-stop Solution for Absolute Quantification

Molecision™ S6

Digital PCR System

Clinical Medicine

Oncology, infection, fertility, drug use, organ transplantation

Species Identification

Trace DNA detection and sequence analysis

Scientific Research

Copy number variation (CNV), NGS validation and library quantification, gene expression analysis

Food Safety

Foodborne pathogens detection, genetically modified organisms (GMO) detection, meat testing

Forensic Medicine

Trace DNA detection

Port Inspection and Quarantine

Pathogen detection

Animal Epidemic Disease

Infectious disease testing

Environmental Monitoring

Microbial analysis (Waterborne microorganism and pathogenic microorganism)

Features & Benefits

Absolute Quantification

An absolute count of target DNA copies per input sample can be achieved without the need for control samples and standard curves.

Fully Integrated Operation

The analyzer integrates functions of droplet generation, PCR amplification, five-color fluorescence detection and data analysis. The overall detection only takes 2 hours.

Totally Enclosed System

All the function modules are enclosed to avoid cross-contamination of samples and aerosol contamination due to sample-air contact.

Multiple Fluorescence Channels

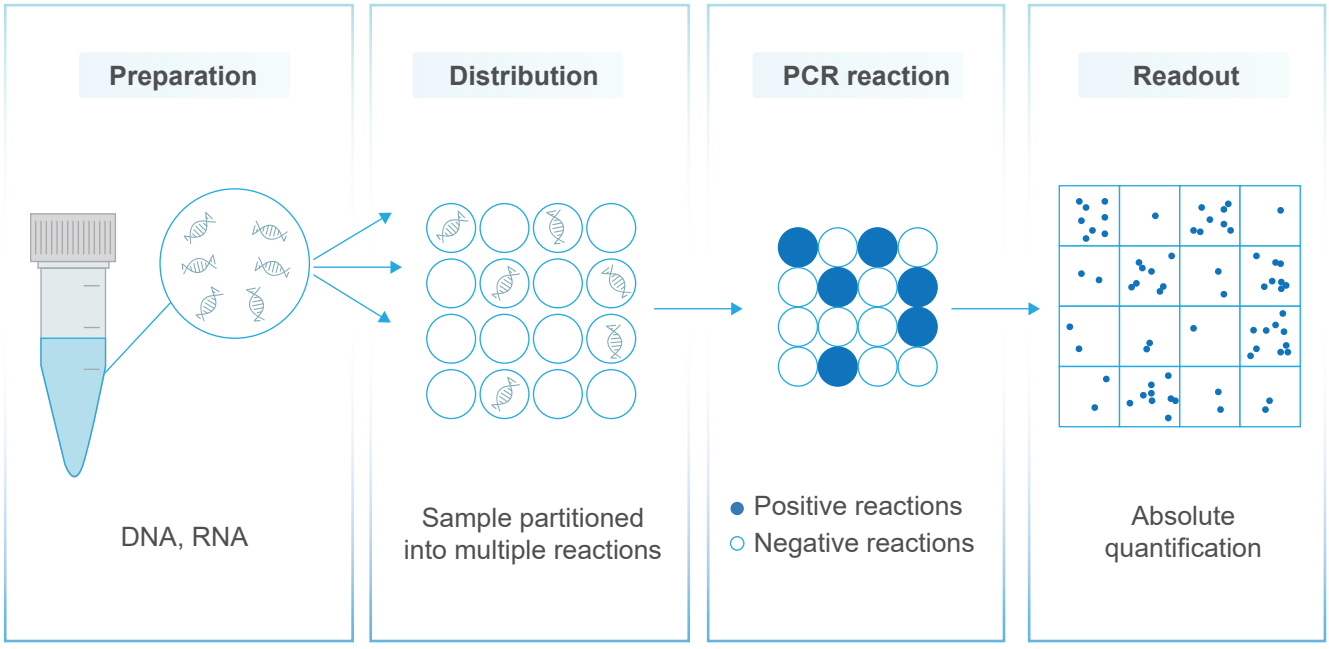
5 kinds of fluorescence channels can support simultaneous detection of multiple indicators. (FAM, HEX, ROX,CY5 and CY5.5)

Cost-effective

ddPCR chip is the only consumable, no need to purchase additional consumables.

Technique Principle

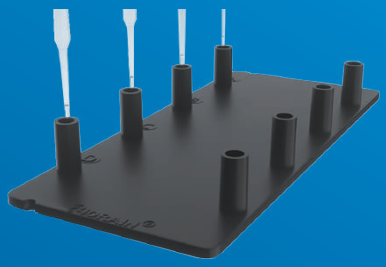
The analyzer divides the input nucleic acid sample into tens of thousands of nanoliter-sized droplets, and PCR amplification of the template molecules occurs in each individual droplet. By analyzing each droplet, the fraction of PCR-positive droplets in the original sample can be determined, thus determining the concentration of the target DNA template in the original sample.



Easy-to-use Workflow

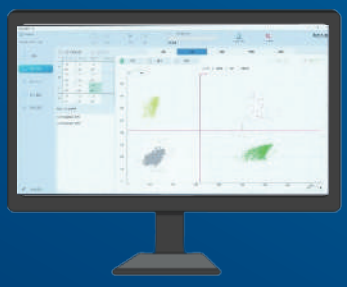
Molecision™ S6

Adding sample



Loading ddPCR chips
(Automatic detection)

Automatic data statistics

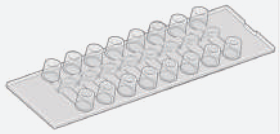


2 hours

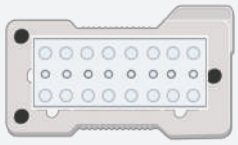
VS

Traditional ddPCR system

Adding oil and sample to the chip



Generating droplets on the machine A



Transferring droplets from the chip
to the 96-well plate

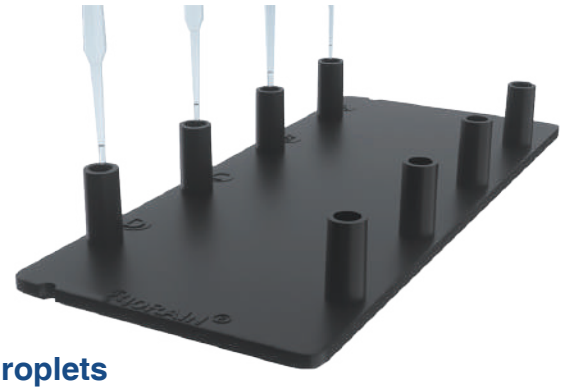
Sealing plates on the machine B

PCR amplification on the machine C

Droplet reading and data statistics
on the machine D

7 hours

Cutting-edge ddPCR chip



Fully enclosed and pollution-free

Generated droplets are sunk under the light oil to ensure the droplets are completely sealed.

Easy operation

Droplet generation oil is filled in advance to avoid bubbles.

Good uniformity and thermal stability of generated droplets

CV<5%, droplets maintain good shape and properties before and after heating.

Efficient droplet generation

The valid droplet generation rate is more than 95%, ensuring the accuracy of results.

High-quality Reagents*

- One-Step RT-dPCR Master Mix for probes
- dPCR Master Mix for probes
- One-Step RT-dPCR Master Mix for probes (Lyophilized)
- dPCR Master Mix for probes (Lyophilized)
- Human BCR-ABL P210 Fusion Gene ddPCR Assay
- Human BRAF Gene V600E Mutation ddPCR Assay
- Human Survival Motor Neuron Gene ddPCR Assay
- HER2 Gene Amplification ddPCR Assay

*For Research Use Only

Performance Characteristics

Sensitivity:	Precision:	Maximum Ramp Rate:	Number of droplets:	Dynamic Range:
0.01%	**±10%**	**5 °C/second**	**>20,000**	**5 logs**

Specification

- Detection speed: 2-4 seconds/channel
- Total run time: 2 hours
- Number of samples in one batch: 16 (4*4 chips)
- A single run: 4 chips
- Detection channel: 5 fluorescence channels
- Maximum single sample volume: 20 μL
- Droplet volume: <0.8 nL
- Dimensions: 428 mm × 504 mm × 624 mm
- Weight: 53.6 kg

Reference:

[1] Mao X, Liu C, Tong H, Chen Y, Liu K. Principles of digital PCR and its applications in current obstetrical and gynecological diseases. Am J Transl Res. 2019 Dec 15;11(12):7209-7222. PMID: 31934273; PMCID: PMC6943456.

[2] Suo T, Liu X, Feng J, et al. ddPCR: a more accurate tool for SARS-CoV-2 detection in low viral load specimens[J]. Emerging microbes & infections, 2020, 9(1): 1259-1268.

Snibe Diagnostic

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